

# Ex6.AutoEncoder

January 16, 2024

## 1 6th exercise: Work with Autoencoders for anomaly detection

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- Date: 30.10.2023

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**GENERAL NOTE 1:** Please make sure you are reading the entire notebook, since it contains a lot of information on your tasks (e.g. regarding the set of certain parameters or a specific computational trick), and the written mark downs as well as comments contain a lot of information on how things work together as a whole.

**GENERAL NOTE 2:** \* Please, when commenting source code, just use English language only. \* When describing an observation please use English language, too. \* This applies to all exercises throughout this course.

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### 1.0.1 DESCRIPTION:

Autoencoder is an unsupervised artificial neural network (ANN) that learns how to efficiently compress and encode data and then learns how to reconstruct the data back from the reduced encoded representation to a representation that is as close to the original input as possible.

An Autoencoder reduces data dimensions by learning how to ignore the noise in the data and thus outliers. In the section above, you can see an example of the input/output image from the MNIST dataset to an Autoencoder.

**Autoencoder Components:** An Autoencoder consists of four main parts:

1. Encoder: In which the model learns how to reduce the input dimensions and compress the input data into an encoded representation.
2. Bottleneck: which is the layer that contains the compressed representation of the input data. This is the lowest possible dimensions of the input data. The bottleneck is also called latent

vector. The concept of the latent space and latent vectors becomes important later on as we move forward to understand Generative Models.

3. Decoder: In which the model learns how to reconstruct the data from the encoded representation to be as close to the original input as possible.
4. Reconstruction Loss: This is the method that measures how well the decoder is performing and how close the output is to the original input.

As always in ANNs, the training itself involves back propagation in order to minimize the network's reconstruction loss.

Due to this features of an Autoencoder the use cases are manifold. One of the obviously is anomaly detection.

**Autoencoder Architecture:** The network architecture for Autoencoders can vary between simple Feed Forward networks, Recurrent Neural Networks (LSTM) or Convolutional Neural Networks (CNN) depending on the use case.

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### 1.0.2 TASKS:

The tasks that you need to work on within this notebook are always indicated below as bullet points. If a task is more challenging and consists of several steps, this is indicated as well. Make sure you have worked down the task list and commented your doings. This should be done by using markdown. Make sure you don't forget to specify your name and your matriculation number in the notebook.

**YOUR TASKS in this exercise are as follows:** 1. import the notebook to Google Colab or use your local machine. 2. make sure you specified you name and your matriculation number in the header below my name and date. \* set the date too and remove mine. 3. read the entire notebook carefully \* add comments wherever you feel it necessary for better understanding \* run the notebook for the first time. \* the example below shows how to use an autoencoder for anomaly detection

4. Develop an Autoencoder for Domain Adaptation (Me -> Walter White ). You can of course also take own data, e.g. a photo of yours and someone else.
5. Set at least the following hyperparameters for training (epochs=100000, shuffle=True).
6. Implement a CNN for working out important features for the adaptation. If you feel lost in the exercise, please visit the sample solution.
- 7.

**1.1 There is also an implementation of data augmentation that helps you building up your data set from one single "original" image.**

#### 1.1.1 Auto-Encoding

If you have correlated input data, the auto-encoder method will work very well because the encoding operation relies on the correlated features to compress the data. Let's consider that an auto-encoder

is trained on the MNIST dataset. As you know already, using a simple FeedForward neural network, this can be done by building a simple 6 layers network as below:

```
[1]: import matplotlib.pyplot as plt
import numpy as np
import keras
from keras.datasets import mnist
from keras.models import Sequential, Model
from keras.layers import Dense, Input
from keras import optimizers
from keras.optimizers import Adam
import cv2
import os
import matplotlib.pyplot as plt
```

```
[2]: # load the inbuild mnist data set (8bit grayscale digits)
# https://en.wikipedia.org/wiki/MNIST_database
(x_train, y_train), (x_test, y_test) = mnist.load_data()
# normalize the training and the validation data set
train_x = x_train.reshape(60000, 784) / 255
val_x = x_test.reshape(10000, 784) / 255

# build the auto-encoding layers
autoencoder = Sequential()
autoencoder.add(Dense(512, activation='elu', input_shape=(784,)))
autoencoder.add(Dense(128, activation='elu'))
autoencoder.add(Dense(10, activation='linear', name="bottleneck"))
autoencoder.add(Dense(128, activation='elu'))
autoencoder.add(Dense(512, activation='elu'))
autoencoder.add(Dense(784, activation='sigmoid'))
autoencoder.compile(loss='mean_squared_error', optimizer = Adam())

'''
NOTE:
-----
The Exponential Linear Unit (ELU) is an activation function for neural networks.
↪
In contrast to ReLUs (which you know), ELUs have negative values which allows
↪ them to push mean unit
activations closer to zero like batch normalization but with lower
↪ computational complexity.
'''

# train the model and finally assign the encoding to the decoder
'''
NOTE:
-----
```

```

make sure you understand, that you are training on train_x and not on train_y,
↳but train_x again for the reconstruction
the same for the validation (val_x, val_x)
'''
trained_model = autoencoder.fit(train_x, train_x, batch_size=1024, epochs=10,
↳verbose=1, validation_data=(val_x, val_x))
encoder = Model(autoencoder.input, autoencoder.get_layer('bottleneck').output)

encoded_data = encoder.predict(train_x)  # bottleneck representation

decoded_output = autoencoder.predict(train_x)  # reconstruction
encoding_dim = 10

# return the decoder
encoded_input = Input(shape=(encoding_dim,))
decoder = autoencoder.layers[-3](encoded_input)
decoder = autoencoder.layers[-2](decoder)
decoder = autoencoder.layers[-1](decoder)
decoder = Model(encoded_input, decoder)

```

```

Epoch 1/10
59/59 [=====] - 2s 8ms/step - loss: 0.0753 - val_loss:
0.0488
Epoch 2/10
59/59 [=====] - 0s 5ms/step - loss: 0.0422 - val_loss:
0.0365
Epoch 3/10
59/59 [=====] - 0s 6ms/step - loss: 0.0337 - val_loss:
0.0298
Epoch 4/10
59/59 [=====] - 0s 5ms/step - loss: 0.0284 - val_loss:
0.0263
Epoch 5/10
59/59 [=====] - 0s 5ms/step - loss: 0.0257 - val_loss:
0.0243
Epoch 6/10
59/59 [=====] - 0s 6ms/step - loss: 0.0238 - val_loss:
0.0226
Epoch 7/10
59/59 [=====] - 0s 5ms/step - loss: 0.0224 - val_loss:
0.0214
Epoch 8/10
59/59 [=====] - 0s 5ms/step - loss: 0.0213 - val_loss:
0.0204
Epoch 9/10
59/59 [=====] - 0s 6ms/step - loss: 0.0204 - val_loss:
0.0196

```

```
Epoch 10/10
59/59 [=====] - 0s 6ms/step - loss: 0.0196 - val_loss:
0.0190
1875/1875 [=====] - 2s 796us/step
1875/1875 [=====] - 2s 1ms/step
```

As you can see in the output, the last reconstruction loss/error for the validation set is approx. 0.0197, which is great. Now, if we pass any normal image from the MNIST dataset, the reconstruction loss will be very low ( $< 0.02$ ) BUT if we tried to pass any other different image (outlier / anomaly), we will get a high reconstruction loss value because the network failed to reconstruct the image/input that is considered an anomaly.

Notice in the code above, you can use only the encoder part to compress some data or images and you can also only use the decoder part to decompress the data by loading the decoder layers.

**Auto-Encoders for Anomaly Detection** Now, let's do some anomaly detection. The code below uses two different images to predict the anomaly score (reconstruction error) using the autoencoder network we trained above.

The first image is from the MNIST and the result is error=2.46241018. This means that the image is not an anomaly. The second image (yoda.png) obviously does not belong to the training dataset and the result is: error=2727.0718. This high error means that the image is an anomaly. Even the third image. The same concept applies to any type of dataset.

```
[3]: # If you are using a newer version of keras than '2.4.3', read this article
      ↪below.
      # It describes a versioning issue in the keras libs
      '''https://stackoverflow.com/questions/72383347/
      ↪how-to-fix-it-attributeerror-module-keras-preprocessing-image-has-no-attribu'''
      from keras.preprocessing import image

      # take an image from the validation data set or the training data set,
      ↪respectively
      input_img = val_x[50]
      input_img_flat = input_img.reshape(1,784)

      target_data = autoencoder.predict(input_img_flat)

      dist = np.linalg.norm(input_img_flat - target_data, axis=-1)

      print(dist)
```

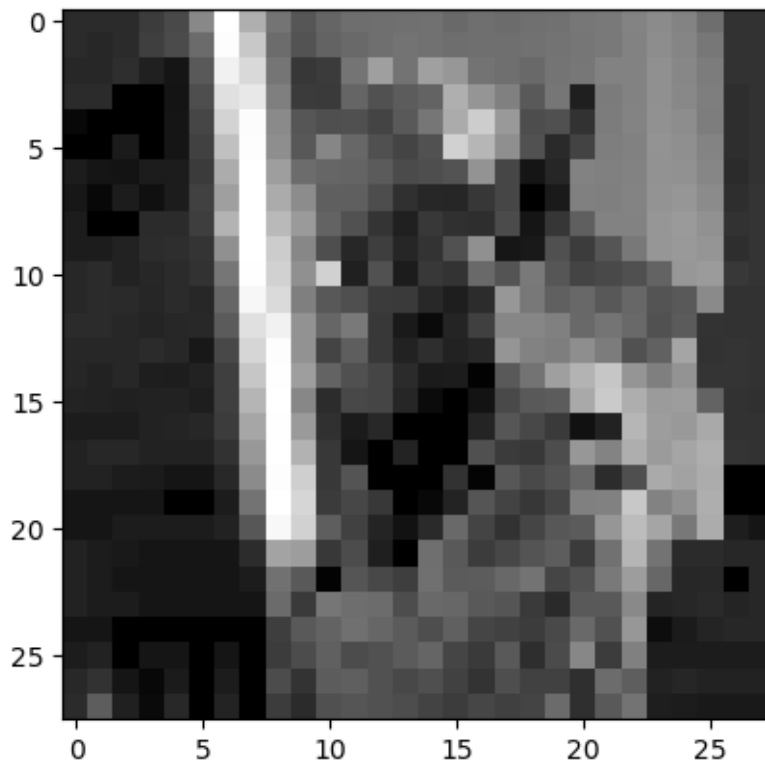
```
1/1 [=====] - 0s 54ms/step
[2.86418411]
```

```
[4]: # Now take Master Yoda as the test image. The error score will be very high
      ↪(error=2727.0718)

      img = cv2.resize(cv2.imread("data/yoda.png", 0), (28, 28))
```

```
plt.imshow(img, cmap="gray")
```

[4]: <matplotlib.image.AxesImage at 0x1ecb7f0f310>

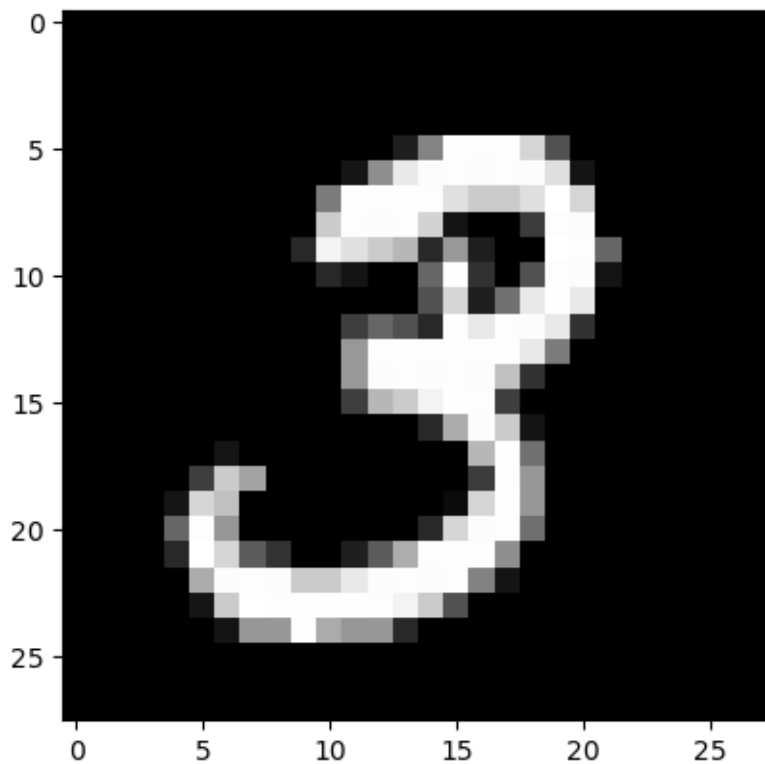


```
[5]: input_img_flat = img.reshape(1,784)
target_data = autoencoder.predict(input_img_flat)
dist = np.linalg.norm(input_img_flat - target_data, axis=-1)
print(dist)
```

```
1/1 [=====] - 0s 62ms/step
[2781.6228]
```

```
[6]: '''
Now take a Mnist image which is taken from the google image search and although
    ↳ it is super similar to the training data
it does not belong to the same data distribution the auto-encoder was trained
    ↳ on.
It produces an error almost as high as yoda.png (approx error=2551.99)
This makes autoencoders being a very robust technique for anomaly detection.
'''
img = cv2.resize(cv2.imread("data/similarMnistNumber.jpg", 0), (28, 28))
plt.imshow(img, cmap="gray")
```

[6]: <matplotlib.image.AxesImage at 0x1ecc36b6640>



```
[7]: # img = load_img("data/similarMnistNumber.jpg", target_size=(28, 28),
      ↪color_mode = "grayscale")
      # input_img = img_to_array(img)

      input_img_flat = img.reshape(1,784)
      target_data = autoencoder.predict(input_img_flat)
      dist = np.linalg.norm(input_img_flat - target_data, axis=-1)

      print(dist)
```

```
1/1 [=====] - 0s 18ms/step
[2551.837]
```

## 1.2 Autoencoders selfmade for outlier detection

```
[8]: z = np.arange(0, 1, .0001)
      x = z * np.sin(z * 30)
      y = z * np.cos(z * 30)

      # plotting
```

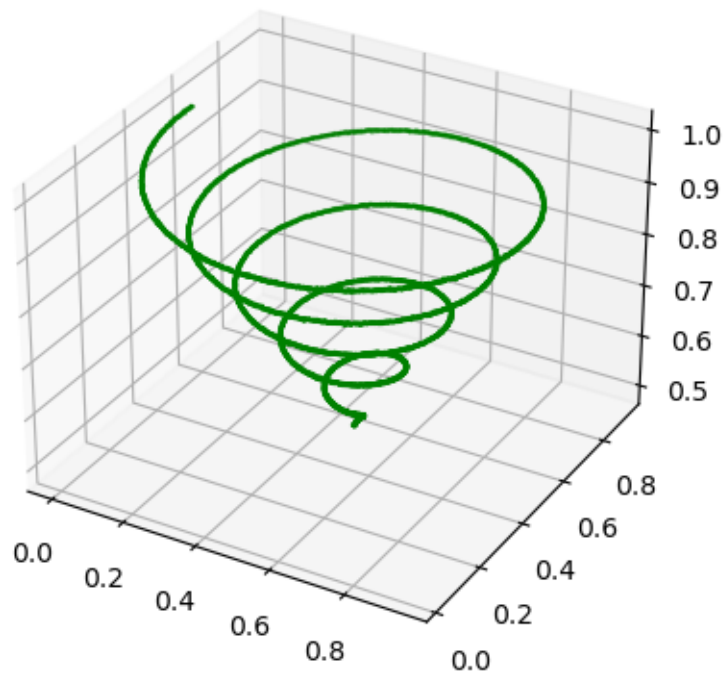
```

inputs = np.stack((x, y, z), axis=1)
inputs += np.random.normal(0, size=inputs.shape) * 0.002

inputs = (inputs - np.min(inputs)) / (np.max(inputs) - np.min(inputs))

ax = plt.axes(projection = '3d')
ax.scatter3D(inputs[:, 0], inputs[:, 1], inputs[:, 2], color = "green", s=.5)
plt.show()

```



```

[9]: encoder = Sequential()
# encoder.add(Dense(1028, activation="relu"))
encoder.add(Dense(32, activation="relu"))
encoder.add(Dense(64, activation="relu"))
encoder.add(Dense(16, activation="relu"))
encoder.add(Dense(1))

decoder = Sequential()
decoder.add(Dense(16, activation="relu"))
decoder.add(Dense(64, activation="relu"))
decoder.add(Dense(32, activation="relu"))
# decoder.add(Dense(1028, activation="relu"))
decoder.add(Dense(3))

```



```
autoencoder = Sequential([encoder, decoder])
autoencoder.compile(loss="mse", optimizer=Adam(learning_rate=8e-4))
```

```
[10]: from keras.callbacks import Callback
import warnings

class EarlyStoppingByLossVal(Callback):
    def __init__(self, monitor='val_loss', value=0.00001, verbose=0,
        ↪patience=0):
        super().__init__()
        self.monitor = monitor
        self.value = value
        self.verbose = verbose
        self.patience = patience
        self.patience_count = 0

    def on_epoch_end(self, epoch, logs={}):
        current = logs.get(self.monitor)
        if current is None:
            warnings.warn("Early stopping requires %s available!" % self.
        ↪monitor, RuntimeWarning)

        if current < self.value:
            if self.verbose > 0:
                print("Epoch %05d: early stopping THR" % epoch)
            if self.patience_count >= self.patience:
                self.model.stop_training = True
            self.patience_count += 1
        else:
            self.patience_count = 0

np.random.shuffle(inputs)

# callback = new_callback()# .EarlyStopping(monitor='loss', patience=5,
    ↪min_delta=5e-10)
callback = EarlyStoppingByLossVal(monitor='val_loss', value=5e-4, verbose=1,
    ↪patience=10)
history = autoencoder.fit(inputs, inputs, validation_split=.2, epochs=100000,
    ↪batch_size=128, callbacks=[callback])
```

Epoch 1/100000

63/63 [=====] - 1s 6ms/step - loss: 0.1378 - val\_loss: 0.0272

Epoch 2/100000

63/63 [=====] - 0s 4ms/step - loss: 0.0269 - val\_loss: 0.0251

Epoch 3/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0262 - val\_loss:  
0.0246  
Epoch 4/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0257 - val\_loss:  
0.0242  
Epoch 5/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0252 - val\_loss:  
0.0235  
Epoch 6/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0246 - val\_loss:  
0.0230  
Epoch 7/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0239 - val\_loss:  
0.0223  
Epoch 8/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0230 - val\_loss:  
0.0214  
Epoch 9/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0221 - val\_loss:  
0.0204  
Epoch 10/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0208 - val\_loss:  
0.0192  
Epoch 11/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0191 - val\_loss:  
0.0175  
Epoch 12/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0176 - val\_loss:  
0.0167  
Epoch 13/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0171 - val\_loss:  
0.0163  
Epoch 14/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0167 - val\_loss:  
0.0162  
Epoch 15/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0164 - val\_loss:  
0.0159  
Epoch 16/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0163 - val\_loss:  
0.0158  
Epoch 17/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0161 - val\_loss:  
0.0157  
Epoch 18/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0160 - val\_loss:  
0.0156

Epoch 19/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0159 - val\_loss: 0.0155  
Epoch 20/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0158 - val\_loss: 0.0155  
Epoch 21/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0157 - val\_loss: 0.0154  
Epoch 22/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0156 - val\_loss: 0.0153  
Epoch 23/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0155 - val\_loss: 0.0153  
Epoch 24/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0155 - val\_loss: 0.0152  
Epoch 25/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0154 - val\_loss: 0.0152  
Epoch 26/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0153 - val\_loss: 0.0150  
Epoch 27/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0151 - val\_loss: 0.0148  
Epoch 28/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0149 - val\_loss: 0.0147  
Epoch 29/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0147 - val\_loss: 0.0146  
Epoch 30/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0145 - val\_loss: 0.0142  
Epoch 31/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0142 - val\_loss: 0.0138  
Epoch 32/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0131 - val\_loss: 0.0124  
Epoch 33/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0121 - val\_loss: 0.0117  
Epoch 34/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0114 - val\_loss: 0.0111

Epoch 35/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0110 - val\_loss:  
0.0111  
Epoch 36/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0104 - val\_loss:  
0.0106  
Epoch 37/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0100 - val\_loss:  
0.0110  
Epoch 38/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0096 - val\_loss:  
0.0093  
Epoch 39/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0091 - val\_loss:  
0.0087  
Epoch 40/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0089 - val\_loss:  
0.0087  
Epoch 41/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0085 - val\_loss:  
0.0083  
Epoch 42/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0081 - val\_loss:  
0.0078  
Epoch 43/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0079 - val\_loss:  
0.0078  
Epoch 44/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0077 - val\_loss:  
0.0082  
Epoch 45/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0079 - val\_loss:  
0.0082  
Epoch 46/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0080 - val\_loss:  
0.0079  
Epoch 47/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0077 - val\_loss:  
0.0084  
Epoch 48/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0079 - val\_loss:  
0.0074  
Epoch 49/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0070 - val\_loss:  
0.0072  
Epoch 50/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0072 - val\_loss:  
0.0072

Epoch 51/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0074 - val\_loss: 0.0072  
Epoch 52/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0070 - val\_loss: 0.0071  
Epoch 53/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0067 - val\_loss: 0.0069  
Epoch 54/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0071 - val\_loss: 0.0069  
Epoch 55/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0068 - val\_loss: 0.0071  
Epoch 56/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0068 - val\_loss: 0.0063  
Epoch 57/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0066 - val\_loss: 0.0062  
Epoch 58/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0065 - val\_loss: 0.0064  
Epoch 59/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0067 - val\_loss: 0.0064  
Epoch 60/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0064 - val\_loss: 0.0066  
Epoch 61/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0064 - val\_loss: 0.0062  
Epoch 62/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0063 - val\_loss: 0.0063  
Epoch 63/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0063 - val\_loss: 0.0064  
Epoch 64/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0065 - val\_loss: 0.0065  
Epoch 65/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0064 - val\_loss: 0.0060  
Epoch 66/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0063 - val\_loss: 0.0064

Epoch 67/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0062 - val\_loss: 0.0058  
Epoch 68/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0062 - val\_loss: 0.0062  
Epoch 69/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0062 - val\_loss: 0.0056  
Epoch 70/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0061 - val\_loss: 0.0057  
Epoch 71/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0060 - val\_loss: 0.0058  
Epoch 72/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0062 - val\_loss: 0.0059  
Epoch 73/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0062 - val\_loss: 0.0056  
Epoch 74/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0060 - val\_loss: 0.0062  
Epoch 75/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0061 - val\_loss: 0.0058  
Epoch 76/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0061 - val\_loss: 0.0054  
Epoch 77/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0059 - val\_loss: 0.0057  
Epoch 78/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0059 - val\_loss: 0.0064  
Epoch 79/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0066 - val\_loss: 0.0064  
Epoch 80/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0061 - val\_loss: 0.0058  
Epoch 81/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0058 - val\_loss: 0.0062  
Epoch 82/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0058 - val\_loss: 0.0054

Epoch 83/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0057 - val\_loss: 0.0058  
Epoch 84/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0066 - val\_loss: 0.0059  
Epoch 85/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0067 - val\_loss: 0.0064  
Epoch 86/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0061 - val\_loss: 0.0056  
Epoch 87/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0057 - val\_loss: 0.0056  
Epoch 88/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0057 - val\_loss: 0.0054  
Epoch 89/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0059 - val\_loss: 0.0066  
Epoch 90/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0065 - val\_loss: 0.0058  
Epoch 91/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0060 - val\_loss: 0.0061  
Epoch 92/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0057 - val\_loss: 0.0058  
Epoch 93/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0058 - val\_loss: 0.0052  
Epoch 94/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0054 - val\_loss: 0.0050  
Epoch 95/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0055 - val\_loss: 0.0056  
Epoch 96/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0057 - val\_loss: 0.0054  
Epoch 97/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0054 - val\_loss: 0.0057  
Epoch 98/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0056 - val\_loss: 0.0051

Epoch 99/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0055 - val\_loss: 0.0051  
Epoch 100/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0054 - val\_loss: 0.0054  
Epoch 101/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0056 - val\_loss: 0.0054  
Epoch 102/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0054 - val\_loss: 0.0050  
Epoch 103/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0056 - val\_loss: 0.0053  
Epoch 104/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0054 - val\_loss: 0.0059  
Epoch 105/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0059 - val\_loss: 0.0055  
Epoch 106/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0053 - val\_loss: 0.0052  
Epoch 107/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0060 - val\_loss: 0.0053  
Epoch 108/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0055 - val\_loss: 0.0051  
Epoch 109/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0053 - val\_loss: 0.0050  
Epoch 110/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0056 - val\_loss: 0.0052  
Epoch 111/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0055 - val\_loss: 0.0049  
Epoch 112/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0052 - val\_loss: 0.0051  
Epoch 113/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0053 - val\_loss: 0.0051  
Epoch 114/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0052 - val\_loss: 0.0047



Epoch 115/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0051 - val\_loss: 0.0051

Epoch 116/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0055 - val\_loss: 0.0051

Epoch 117/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0052 - val\_loss: 0.0055

Epoch 118/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0052 - val\_loss: 0.0048

Epoch 119/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0053 - val\_loss: 0.0056

Epoch 120/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0054 - val\_loss: 0.0050

Epoch 121/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0052 - val\_loss: 0.0051

Epoch 122/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0055 - val\_loss: 0.0049

Epoch 123/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0053 - val\_loss: 0.0055

Epoch 124/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0054 - val\_loss: 0.0049

Epoch 125/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0054 - val\_loss: 0.0051

Epoch 126/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0052 - val\_loss: 0.0050

Epoch 127/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0056 - val\_loss: 0.0063

Epoch 128/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0065 - val\_loss: 0.0057

Epoch 129/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0052 - val\_loss: 0.0047

Epoch 130/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0051 - val\_loss: 0.0046

Epoch 131/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0051 - val\_loss: 0.0051  
Epoch 132/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0051 - val\_loss: 0.0050  
Epoch 133/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0049 - val\_loss: 0.0051  
Epoch 134/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0051 - val\_loss: 0.0045  
Epoch 135/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0050 - val\_loss: 0.0055  
Epoch 136/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0057 - val\_loss: 0.0056  
Epoch 137/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0062 - val\_loss: 0.0056  
Epoch 138/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0057 - val\_loss: 0.0051  
Epoch 139/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0058 - val\_loss: 0.0052  
Epoch 140/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0051 - val\_loss: 0.0051  
Epoch 141/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0050 - val\_loss: 0.0045  
Epoch 142/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0050 - val\_loss: 0.0046  
Epoch 143/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0050 - val\_loss: 0.0047  
Epoch 144/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0049 - val\_loss: 0.0050  
Epoch 145/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0049 - val\_loss: 0.0047  
Epoch 146/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0048 - val\_loss: 0.0044

Epoch 147/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0049 - val\_loss: 0.0048  
Epoch 148/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0048 - val\_loss: 0.0051  
Epoch 149/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0054 - val\_loss: 0.0049  
Epoch 150/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0053 - val\_loss: 0.0049  
Epoch 151/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0048 - val\_loss: 0.0045  
Epoch 152/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0056 - val\_loss: 0.0067  
Epoch 153/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0062 - val\_loss: 0.0048  
Epoch 154/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0046 - val\_loss: 0.0047  
Epoch 155/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0049 - val\_loss: 0.0047  
Epoch 156/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0049 - val\_loss: 0.0048  
Epoch 157/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0051 - val\_loss: 0.0048  
Epoch 158/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0050 - val\_loss: 0.0046  
Epoch 159/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0050 - val\_loss: 0.0048  
Epoch 160/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0047 - val\_loss: 0.0045  
Epoch 161/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0047 - val\_loss: 0.0043  
Epoch 162/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0048 - val\_loss: 0.0044

Epoch 163/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0050 - val\_loss:  
0.0044  
Epoch 164/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0048 - val\_loss:  
0.0048  
Epoch 165/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0046 - val\_loss:  
0.0052  
Epoch 166/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0049 - val\_loss:  
0.0046  
Epoch 167/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0045 - val\_loss:  
0.0047  
Epoch 168/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0046 - val\_loss:  
0.0047  
Epoch 169/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0045 - val\_loss:  
0.0050  
Epoch 170/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0050 - val\_loss:  
0.0049  
Epoch 171/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0051 - val\_loss:  
0.0046  
Epoch 172/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0050 - val\_loss:  
0.0056  
Epoch 173/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0049 - val\_loss:  
0.0047  
Epoch 174/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0052 - val\_loss:  
0.0062  
Epoch 175/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0048 - val\_loss:  
0.0045  
Epoch 176/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0043 - val\_loss:  
0.0043  
Epoch 177/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0045 - val\_loss:  
0.0045  
Epoch 178/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0046 - val\_loss:  
0.0045

Epoch 179/100000  
63/63 [=====] - 0s 6ms/step - loss: 0.0048 - val\_loss: 0.0051  
Epoch 180/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0051 - val\_loss: 0.0051  
Epoch 181/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0052 - val\_loss: 0.0048  
Epoch 182/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0052 - val\_loss: 0.0045  
Epoch 183/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0046 - val\_loss: 0.0046  
Epoch 184/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0045 - val\_loss: 0.0044  
Epoch 185/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0044 - val\_loss: 0.0042  
Epoch 186/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0043 - val\_loss: 0.0040  
Epoch 187/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0042 - val\_loss: 0.0043  
Epoch 188/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0046 - val\_loss: 0.0047  
Epoch 189/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0048 - val\_loss: 0.0052  
Epoch 190/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0046 - val\_loss: 0.0042  
Epoch 191/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0042 - val\_loss: 0.0042  
Epoch 192/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0044 - val\_loss: 0.0044  
Epoch 193/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0043 - val\_loss: 0.0039  
Epoch 194/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0041 - val\_loss: 0.0041

Epoch 195/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0043 - val\_loss: 0.0042  
Epoch 196/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0046 - val\_loss: 0.0049  
Epoch 197/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0057 - val\_loss: 0.0056  
Epoch 198/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0057 - val\_loss: 0.0048  
Epoch 199/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0049 - val\_loss: 0.0042  
Epoch 200/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0044 - val\_loss: 0.0040  
Epoch 201/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0042 - val\_loss: 0.0040  
Epoch 202/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0042 - val\_loss: 0.0040  
Epoch 203/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0044 - val\_loss: 0.0043  
Epoch 204/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0041 - val\_loss: 0.0040  
Epoch 205/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0042 - val\_loss: 0.0043  
Epoch 206/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0042 - val\_loss: 0.0043  
Epoch 207/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0045 - val\_loss: 0.0041  
Epoch 208/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0044 - val\_loss: 0.0041  
Epoch 209/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0045 - val\_loss: 0.0041  
Epoch 210/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0044 - val\_loss: 0.0039

Epoch 211/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0040 - val\_loss: 0.0043  
Epoch 212/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0045 - val\_loss: 0.0044  
Epoch 213/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0043 - val\_loss: 0.0041  
Epoch 214/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0039 - val\_loss: 0.0043  
Epoch 215/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0044 - val\_loss: 0.0039  
Epoch 216/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0041 - val\_loss: 0.0046  
Epoch 217/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0046 - val\_loss: 0.0038  
Epoch 218/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0043 - val\_loss: 0.0040  
Epoch 219/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0044 - val\_loss: 0.0043  
Epoch 220/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0041 - val\_loss: 0.0039  
Epoch 221/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0042 - val\_loss: 0.0043  
Epoch 222/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0041 - val\_loss: 0.0038  
Epoch 223/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0039 - val\_loss: 0.0041  
Epoch 224/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0049 - val\_loss: 0.0047  
Epoch 225/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0051 - val\_loss: 0.0043  
Epoch 226/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0043 - val\_loss: 0.0043

Epoch 227/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0046 - val\_loss: 0.0040  
Epoch 228/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0043 - val\_loss: 0.0043  
Epoch 229/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0041 - val\_loss: 0.0042  
Epoch 230/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0040 - val\_loss: 0.0046  
Epoch 231/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0043 - val\_loss: 0.0044  
Epoch 232/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0040 - val\_loss: 0.0039  
Epoch 233/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0039 - val\_loss: 0.0040  
Epoch 234/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0042 - val\_loss: 0.0039  
Epoch 235/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0040 - val\_loss: 0.0040  
Epoch 236/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0040 - val\_loss: 0.0040  
Epoch 237/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0043 - val\_loss: 0.0043  
Epoch 238/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0040 - val\_loss: 0.0039  
Epoch 239/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0040 - val\_loss: 0.0045  
Epoch 240/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0043 - val\_loss: 0.0045  
Epoch 241/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0042 - val\_loss: 0.0040  
Epoch 242/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0039 - val\_loss: 0.0043



Epoch 243/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0045 - val\_loss: 0.0048  
Epoch 244/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0042 - val\_loss: 0.0043  
Epoch 245/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0041 - val\_loss: 0.0038  
Epoch 246/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0041 - val\_loss: 0.0042  
Epoch 247/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0040 - val\_loss: 0.0038  
Epoch 248/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0039 - val\_loss: 0.0038  
Epoch 249/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0040 - val\_loss: 0.0038  
Epoch 250/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0039 - val\_loss: 0.0037  
Epoch 251/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0038 - val\_loss: 0.0041  
Epoch 252/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0043 - val\_loss: 0.0041  
Epoch 253/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0039 - val\_loss: 0.0045  
Epoch 254/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0042 - val\_loss: 0.0040  
Epoch 255/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0038 - val\_loss: 0.0042  
Epoch 256/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0044 - val\_loss: 0.0038  
Epoch 257/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0039 - val\_loss: 0.0048  
Epoch 258/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0042 - val\_loss: 0.0040

Epoch 259/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0047 - val\_loss: 0.0052  
Epoch 260/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0041 - val\_loss: 0.0039  
Epoch 261/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0055 - val\_loss: 0.0060  
Epoch 262/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0056 - val\_loss: 0.0057  
Epoch 263/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0051 - val\_loss: 0.0045  
Epoch 264/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0043 - val\_loss: 0.0042  
Epoch 265/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0042 - val\_loss: 0.0041  
Epoch 266/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0043 - val\_loss: 0.0041  
Epoch 267/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0040 - val\_loss: 0.0041  
Epoch 268/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0041 - val\_loss: 0.0041  
Epoch 269/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0044 - val\_loss: 0.0039  
Epoch 270/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0041 - val\_loss: 0.0041  
Epoch 271/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0047 - val\_loss: 0.0041  
Epoch 272/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0042 - val\_loss: 0.0040  
Epoch 273/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0040 - val\_loss: 0.0045  
Epoch 274/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0041 - val\_loss: 0.0040

Epoch 275/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0049 - val\_loss: 0.0045  
Epoch 276/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0057 - val\_loss: 0.0051  
Epoch 277/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0052 - val\_loss: 0.0047  
Epoch 278/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0051 - val\_loss: 0.0048  
Epoch 279/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0046 - val\_loss: 0.0040  
Epoch 280/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0046 - val\_loss: 0.0041  
Epoch 281/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0047 - val\_loss: 0.0038  
Epoch 282/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0041 - val\_loss: 0.0039  
Epoch 283/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0041 - val\_loss: 0.0042  
Epoch 284/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0040 - val\_loss: 0.0041  
Epoch 285/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0040 - val\_loss: 0.0040  
Epoch 286/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0041 - val\_loss: 0.0040  
Epoch 287/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0043 - val\_loss: 0.0043  
Epoch 288/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0048 - val\_loss: 0.0046  
Epoch 289/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0050 - val\_loss: 0.0042  
Epoch 290/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0043 - val\_loss: 0.0043

Epoch 291/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0046 - val\_loss: 0.0045  
Epoch 292/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0046 - val\_loss: 0.0048  
Epoch 293/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0049 - val\_loss: 0.0041  
Epoch 294/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0045 - val\_loss: 0.0040  
Epoch 295/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0046 - val\_loss: 0.0044  
Epoch 296/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0043 - val\_loss: 0.0041  
Epoch 297/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0044 - val\_loss: 0.0045  
Epoch 298/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0043 - val\_loss: 0.0042  
Epoch 299/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0040 - val\_loss: 0.0034  
Epoch 300/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0038 - val\_loss: 0.0048  
Epoch 301/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0039 - val\_loss: 0.0037  
Epoch 302/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0041 - val\_loss: 0.0050  
Epoch 303/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0060 - val\_loss: 0.0055  
Epoch 304/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0047 - val\_loss: 0.0038  
Epoch 305/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0041 - val\_loss: 0.0039  
Epoch 306/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0044 - val\_loss: 0.0040

Epoch 307/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0041 - val\_loss: 0.0042  
Epoch 308/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0041 - val\_loss: 0.0045  
Epoch 309/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0045 - val\_loss: 0.0041  
Epoch 310/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0044 - val\_loss: 0.0046  
Epoch 311/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0046 - val\_loss: 0.0041  
Epoch 312/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0039 - val\_loss: 0.0037  
Epoch 313/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0041 - val\_loss: 0.0051  
Epoch 314/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0042 - val\_loss: 0.0039  
Epoch 315/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0040 - val\_loss: 0.0044  
Epoch 316/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0038 - val\_loss: 0.0040  
Epoch 317/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0039 - val\_loss: 0.0042  
Epoch 318/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0040 - val\_loss: 0.0041  
Epoch 319/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0040 - val\_loss: 0.0037  
Epoch 320/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0037 - val\_loss: 0.0038  
Epoch 321/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0043 - val\_loss: 0.0045  
Epoch 322/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0045 - val\_loss: 0.0044

Epoch 323/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0045 - val\_loss: 0.0038  
Epoch 324/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0037 - val\_loss: 0.0038  
Epoch 325/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0046 - val\_loss: 0.0041  
Epoch 326/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0040 - val\_loss: 0.0039  
Epoch 327/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0042 - val\_loss: 0.0036  
Epoch 328/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0041 - val\_loss: 0.0038  
Epoch 329/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0045 - val\_loss: 0.0040  
Epoch 330/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0044 - val\_loss: 0.0041  
Epoch 331/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0040 - val\_loss: 0.0036  
Epoch 332/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0039 - val\_loss: 0.0040  
Epoch 333/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0041 - val\_loss: 0.0046  
Epoch 334/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0038 - val\_loss: 0.0040  
Epoch 335/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0043 - val\_loss: 0.0040  
Epoch 336/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0043 - val\_loss: 0.0049  
Epoch 337/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0042 - val\_loss: 0.0036  
Epoch 338/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0037 - val\_loss: 0.0042

Epoch 339/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0041 - val\_loss: 0.0040

Epoch 340/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0039 - val\_loss: 0.0038

Epoch 341/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0041 - val\_loss: 0.0036

Epoch 342/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0035 - val\_loss: 0.0037

Epoch 343/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0038 - val\_loss: 0.0038

Epoch 344/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0034

Epoch 345/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0041

Epoch 346/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0039 - val\_loss: 0.0045

Epoch 347/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0042 - val\_loss: 0.0041

Epoch 348/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0037 - val\_loss: 0.0035

Epoch 349/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0036

Epoch 350/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0038 - val\_loss: 0.0035

Epoch 351/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0038 - val\_loss: 0.0035

Epoch 352/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0040 - val\_loss: 0.0045

Epoch 353/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0038 - val\_loss: 0.0039

Epoch 354/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0035

Epoch 355/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0041  
Epoch 356/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0044 - val\_loss: 0.0042  
Epoch 357/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0041 - val\_loss: 0.0041  
Epoch 358/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0041 - val\_loss: 0.0046  
Epoch 359/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0041 - val\_loss: 0.0035  
Epoch 360/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0033  
Epoch 361/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0035  
Epoch 362/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0039 - val\_loss: 0.0036  
Epoch 363/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0034  
Epoch 364/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0037 - val\_loss: 0.0037  
Epoch 365/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0038 - val\_loss: 0.0034  
Epoch 366/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0039 - val\_loss: 0.0046  
Epoch 367/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0043 - val\_loss: 0.0049  
Epoch 368/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0045 - val\_loss: 0.0040  
Epoch 369/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0047 - val\_loss: 0.0044  
Epoch 370/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0044 - val\_loss: 0.0039



Epoch 371/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0043 - val\_loss: 0.0040

Epoch 372/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0043 - val\_loss: 0.0039

Epoch 373/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0039 - val\_loss: 0.0038

Epoch 374/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0038 - val\_loss: 0.0035

Epoch 375/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0038 - val\_loss: 0.0036

Epoch 376/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0038 - val\_loss: 0.0037

Epoch 377/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0039 - val\_loss: 0.0038

Epoch 378/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0037 - val\_loss: 0.0036

Epoch 379/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0037 - val\_loss: 0.0035

Epoch 380/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0036

Epoch 381/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0039 - val\_loss: 0.0036

Epoch 382/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0039 - val\_loss: 0.0036

Epoch 383/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0039 - val\_loss: 0.0039

Epoch 384/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0040 - val\_loss: 0.0037

Epoch 385/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0034

Epoch 386/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0038 - val\_loss: 0.0035

Epoch 387/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0035 - val\_loss: 0.0033  
Epoch 388/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0034  
Epoch 389/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0036  
Epoch 390/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0048  
Epoch 391/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0035  
Epoch 392/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0035 - val\_loss: 0.0034  
Epoch 393/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0039  
Epoch 394/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0037 - val\_loss: 0.0038  
Epoch 395/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0037 - val\_loss: 0.0039  
Epoch 396/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0037 - val\_loss: 0.0036  
Epoch 397/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0037 - val\_loss: 0.0035  
Epoch 398/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0041  
Epoch 399/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0037 - val\_loss: 0.0042  
Epoch 400/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0041 - val\_loss: 0.0040  
Epoch 401/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0042 - val\_loss: 0.0042  
Epoch 402/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0041 - val\_loss: 0.0039

Epoch 403/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0044 - val\_loss: 0.0048  
Epoch 404/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0053 - val\_loss: 0.0053  
Epoch 405/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0055 - val\_loss: 0.0043  
Epoch 406/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0045 - val\_loss: 0.0044  
Epoch 407/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0047 - val\_loss: 0.0041  
Epoch 408/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0043 - val\_loss: 0.0041  
Epoch 409/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0045 - val\_loss: 0.0048  
Epoch 410/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0048 - val\_loss: 0.0046  
Epoch 411/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0046 - val\_loss: 0.0044  
Epoch 412/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0043 - val\_loss: 0.0041  
Epoch 413/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0042 - val\_loss: 0.0042  
Epoch 414/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0045 - val\_loss: 0.0056  
Epoch 415/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0042 - val\_loss: 0.0043  
Epoch 416/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0041 - val\_loss: 0.0044  
Epoch 417/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0040 - val\_loss: 0.0040  
Epoch 418/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0038 - val\_loss: 0.0036

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Epoch 419/100000
63/63 [=====] - 0s 3ms/step - loss: 0.0039 - val_loss:
0.0042
Epoch 420/100000
63/63 [=====] - 0s 3ms/step - loss: 0.0039 - val_loss:
0.0040
Epoch 421/100000
63/63 [=====] - 0s 3ms/step - loss: 0.0038 - val_loss:
0.0035
Epoch 422/100000
63/63 [=====] - 0s 3ms/step - loss: 0.0040 - val_loss:
0.0038
Epoch 423/100000
63/63 [=====] - 0s 3ms/step - loss: 0.0038 - val_loss:
0.0035
Epoch 424/100000
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val_loss:
0.0038
Epoch 425/100000
63/63 [=====] - 0s 3ms/step - loss: 0.0039 - val_loss:
0.0037
Epoch 426/100000
63/63 [=====] - 0s 3ms/step - loss: 0.0038 - val_loss:
0.0037
Epoch 427/100000
63/63 [=====] - 0s 3ms/step - loss: 0.0037 - val_loss:
0.0035
Epoch 428/100000
63/63 [=====] - 0s 3ms/step - loss: 0.0037 - val_loss:
0.0038
Epoch 429/100000
63/63 [=====] - 0s 3ms/step - loss: 0.0038 - val_loss:
0.0039
Epoch 430/100000
63/63 [=====] - 0s 3ms/step - loss: 0.0037 - val_loss:
0.0035
Epoch 431/100000
63/63 [=====] - 0s 3ms/step - loss: 0.0037 - val_loss:
0.0036
Epoch 432/100000
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val_loss:
0.0034
Epoch 433/100000
63/63 [=====] - 0s 3ms/step - loss: 0.0037 - val_loss:
0.0037
Epoch 434/100000
63/63 [=====] - 0s 3ms/step - loss: 0.0038 - val_loss:
0.0037

```

Epoch 435/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0039 - val\_loss: 0.0047  
Epoch 436/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0043 - val\_loss: 0.0047  
Epoch 437/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0048 - val\_loss: 0.0052  
Epoch 438/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0046 - val\_loss: 0.0048  
Epoch 439/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0041 - val\_loss: 0.0040  
Epoch 440/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0039 - val\_loss: 0.0039  
Epoch 441/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0040 - val\_loss: 0.0038  
Epoch 442/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0039 - val\_loss: 0.0038  
Epoch 443/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0037 - val\_loss: 0.0036  
Epoch 444/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0037 - val\_loss: 0.0038  
Epoch 445/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0039 - val\_loss: 0.0039  
Epoch 446/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0037  
Epoch 447/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0037  
Epoch 448/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0037 - val\_loss: 0.0039  
Epoch 449/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0042 - val\_loss: 0.0048  
Epoch 450/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0043 - val\_loss: 0.0046

Epoch 451/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0039 - val\_loss: 0.0041  
Epoch 452/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0042 - val\_loss: 0.0042  
Epoch 453/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0039 - val\_loss: 0.0037  
Epoch 454/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0038 - val\_loss: 0.0039  
Epoch 455/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0040 - val\_loss: 0.0039  
Epoch 456/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0038 - val\_loss: 0.0036  
Epoch 457/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0037 - val\_loss: 0.0039  
Epoch 458/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0037 - val\_loss: 0.0037  
Epoch 459/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0040 - val\_loss: 0.0040  
Epoch 460/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0037 - val\_loss: 0.0041  
Epoch 461/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0041 - val\_loss: 0.0041  
Epoch 462/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0054 - val\_loss: 0.0053  
Epoch 463/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0051 - val\_loss: 0.0047  
Epoch 464/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0042 - val\_loss: 0.0044  
Epoch 465/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0058 - val\_loss: 0.0059  
Epoch 466/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0062 - val\_loss: 0.0060

Epoch 467/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0064 - val\_loss: 0.0060  
Epoch 468/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0065 - val\_loss: 0.0056  
Epoch 469/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0057 - val\_loss: 0.0055  
Epoch 470/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0056 - val\_loss: 0.0067  
Epoch 471/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0056 - val\_loss: 0.0055  
Epoch 472/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0056 - val\_loss: 0.0055  
Epoch 473/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0055 - val\_loss: 0.0054  
Epoch 474/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0055 - val\_loss: 0.0050  
Epoch 475/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0051 - val\_loss: 0.0049  
Epoch 476/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0053 - val\_loss: 0.0049  
Epoch 477/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0051 - val\_loss: 0.0054  
Epoch 478/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0054 - val\_loss: 0.0052  
Epoch 479/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0051 - val\_loss: 0.0047  
Epoch 480/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0052 - val\_loss: 0.0052  
Epoch 481/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0049 - val\_loss: 0.0058  
Epoch 482/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0051 - val\_loss: 0.0051

Epoch 483/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0052 - val\_loss: 0.0048  
Epoch 484/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0046 - val\_loss: 0.0050  
Epoch 485/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0050 - val\_loss: 0.0050  
Epoch 486/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0049 - val\_loss: 0.0050  
Epoch 487/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0054 - val\_loss: 0.0054  
Epoch 488/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0048 - val\_loss: 0.0046  
Epoch 489/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0048 - val\_loss: 0.0048  
Epoch 490/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0048 - val\_loss: 0.0045  
Epoch 491/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0048 - val\_loss: 0.0046  
Epoch 492/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0047 - val\_loss: 0.0052  
Epoch 493/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0052 - val\_loss: 0.0051  
Epoch 494/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0048 - val\_loss: 0.0057  
Epoch 495/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0047 - val\_loss: 0.0045  
Epoch 496/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0045 - val\_loss: 0.0045  
Epoch 497/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0046 - val\_loss: 0.0047  
Epoch 498/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0047 - val\_loss: 0.0044



Epoch 499/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0046 - val\_loss: 0.0046  
Epoch 500/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0048 - val\_loss: 0.0045  
Epoch 501/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0048 - val\_loss: 0.0050  
Epoch 502/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0047 - val\_loss: 0.0044  
Epoch 503/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0045 - val\_loss: 0.0046  
Epoch 504/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0047 - val\_loss: 0.0045  
Epoch 505/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0045 - val\_loss: 0.0044  
Epoch 506/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0045 - val\_loss: 0.0047  
Epoch 507/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0049 - val\_loss: 0.0047  
Epoch 508/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0051 - val\_loss: 0.0046  
Epoch 509/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0043 - val\_loss: 0.0048  
Epoch 510/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0043 - val\_loss: 0.0043  
Epoch 511/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0046 - val\_loss: 0.0042  
Epoch 512/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0045 - val\_loss: 0.0042  
Epoch 513/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0044 - val\_loss: 0.0044  
Epoch 514/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0043 - val\_loss: 0.0041

Epoch 515/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0042 - val\_loss: 0.0043  
Epoch 516/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0045 - val\_loss: 0.0048  
Epoch 517/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0043 - val\_loss: 0.0042  
Epoch 518/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0042 - val\_loss: 0.0043  
Epoch 519/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0043 - val\_loss: 0.0049  
Epoch 520/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0043 - val\_loss: 0.0045  
Epoch 521/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0043 - val\_loss: 0.0041  
Epoch 522/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0043 - val\_loss: 0.0047  
Epoch 523/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0043 - val\_loss: 0.0043  
Epoch 524/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0042 - val\_loss: 0.0042  
Epoch 525/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0043 - val\_loss: 0.0047  
Epoch 526/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0045 - val\_loss: 0.0044  
Epoch 527/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0045 - val\_loss: 0.0042  
Epoch 528/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0043 - val\_loss: 0.0055  
Epoch 529/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0048 - val\_loss: 0.0042  
Epoch 530/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0044 - val\_loss: 0.0051

Epoch 531/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0043 - val\_loss: 0.0046  
Epoch 532/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0046 - val\_loss: 0.0047  
Epoch 533/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0046 - val\_loss: 0.0048  
Epoch 534/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0046 - val\_loss: 0.0043  
Epoch 535/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0043 - val\_loss: 0.0041  
Epoch 536/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0042 - val\_loss: 0.0042  
Epoch 537/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0041 - val\_loss: 0.0041  
Epoch 538/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0044 - val\_loss: 0.0048  
Epoch 539/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0041 - val\_loss: 0.0040  
Epoch 540/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0043 - val\_loss: 0.0042  
Epoch 541/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0042 - val\_loss: 0.0041  
Epoch 542/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0042 - val\_loss: 0.0044  
Epoch 543/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0041 - val\_loss: 0.0038  
Epoch 544/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0041 - val\_loss: 0.0042  
Epoch 545/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0042 - val\_loss: 0.0042  
Epoch 546/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0042 - val\_loss: 0.0042

Epoch 547/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0045 - val\_loss: 0.0041  
Epoch 548/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0043 - val\_loss: 0.0046  
Epoch 549/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0043 - val\_loss: 0.0040  
Epoch 550/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0040 - val\_loss: 0.0044  
Epoch 551/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0043 - val\_loss: 0.0047  
Epoch 552/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0045 - val\_loss: 0.0046  
Epoch 553/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0045 - val\_loss: 0.0044  
Epoch 554/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0044 - val\_loss: 0.0042  
Epoch 555/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0043 - val\_loss: 0.0042  
Epoch 556/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0043 - val\_loss: 0.0042  
Epoch 557/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0043 - val\_loss: 0.0045  
Epoch 558/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0041 - val\_loss: 0.0043  
Epoch 559/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0042 - val\_loss: 0.0043  
Epoch 560/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0043 - val\_loss: 0.0042  
Epoch 561/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0041 - val\_loss: 0.0043  
Epoch 562/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0045 - val\_loss: 0.0042

Epoch 563/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0043 - val\_loss: 0.0042

Epoch 564/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0041 - val\_loss: 0.0046

Epoch 565/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0041 - val\_loss: 0.0041

Epoch 566/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0043 - val\_loss: 0.0042

Epoch 567/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0045 - val\_loss: 0.0044

Epoch 568/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0045 - val\_loss: 0.0048

Epoch 569/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0043 - val\_loss: 0.0046

Epoch 570/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0047 - val\_loss: 0.0049

Epoch 571/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0042 - val\_loss: 0.0039

Epoch 572/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0040 - val\_loss: 0.0044

Epoch 573/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0041 - val\_loss: 0.0040

Epoch 574/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0040 - val\_loss: 0.0041

Epoch 575/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0040 - val\_loss: 0.0039

Epoch 576/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0041 - val\_loss: 0.0040

Epoch 577/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0041 - val\_loss: 0.0040

Epoch 578/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0041 - val\_loss: 0.0039

Epoch 579/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0041 - val\_loss: 0.0045  
Epoch 580/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0042 - val\_loss: 0.0040  
Epoch 581/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0043 - val\_loss: 0.0046  
Epoch 582/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0038 - val\_loss: 0.0042  
Epoch 583/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0041 - val\_loss: 0.0038  
Epoch 584/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0039 - val\_loss: 0.0036  
Epoch 585/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0039 - val\_loss: 0.0044  
Epoch 586/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0042 - val\_loss: 0.0037  
Epoch 587/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0037 - val\_loss: 0.0037  
Epoch 588/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0039 - val\_loss: 0.0041  
Epoch 589/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0042 - val\_loss: 0.0047  
Epoch 590/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0042 - val\_loss: 0.0040  
Epoch 591/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0043 - val\_loss: 0.0039  
Epoch 592/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0039 - val\_loss: 0.0043  
Epoch 593/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0041 - val\_loss: 0.0041  
Epoch 594/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0041 - val\_loss: 0.0038

Epoch 595/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0041 - val\_loss: 0.0040  
Epoch 596/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0039 - val\_loss: 0.0036  
Epoch 597/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0037 - val\_loss: 0.0037  
Epoch 598/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0041 - val\_loss: 0.0038  
Epoch 599/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0038 - val\_loss: 0.0040  
Epoch 600/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0038 - val\_loss: 0.0047  
Epoch 601/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0041 - val\_loss: 0.0039  
Epoch 602/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0037 - val\_loss: 0.0038  
Epoch 603/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0039 - val\_loss: 0.0040  
Epoch 604/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0040 - val\_loss: 0.0040  
Epoch 605/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0042 - val\_loss: 0.0037  
Epoch 606/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0038 - val\_loss: 0.0041  
Epoch 607/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0037 - val\_loss: 0.0040  
Epoch 608/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0038 - val\_loss: 0.0040  
Epoch 609/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0041 - val\_loss: 0.0042  
Epoch 610/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0038 - val\_loss: 0.0038

Epoch 611/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0038 - val\_loss: 0.0038  
Epoch 612/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0041 - val\_loss: 0.0050  
Epoch 613/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0042 - val\_loss: 0.0042  
Epoch 614/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0038 - val\_loss: 0.0039  
Epoch 615/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0037 - val\_loss: 0.0037  
Epoch 616/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0036 - val\_loss: 0.0038  
Epoch 617/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0039 - val\_loss: 0.0035  
Epoch 618/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0038 - val\_loss: 0.0040  
Epoch 619/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0038 - val\_loss: 0.0040  
Epoch 620/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0039 - val\_loss: 0.0037  
Epoch 621/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0038 - val\_loss: 0.0041  
Epoch 622/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0037 - val\_loss: 0.0038  
Epoch 623/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0039 - val\_loss: 0.0037  
Epoch 624/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0040 - val\_loss: 0.0039  
Epoch 625/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0039 - val\_loss: 0.0053  
Epoch 626/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0040 - val\_loss: 0.0036



Epoch 627/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0038 - val\_loss: 0.0040  
Epoch 628/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0038 - val\_loss: 0.0042  
Epoch 629/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0039 - val\_loss: 0.0039  
Epoch 630/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0039 - val\_loss: 0.0036  
Epoch 631/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0038  
Epoch 632/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0039 - val\_loss: 0.0038  
Epoch 633/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0037 - val\_loss: 0.0035  
Epoch 634/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0038 - val\_loss: 0.0035  
Epoch 635/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0036  
Epoch 636/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0036  
Epoch 637/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0036 - val\_loss: 0.0036  
Epoch 638/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0038 - val\_loss: 0.0043  
Epoch 639/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0038 - val\_loss: 0.0040  
Epoch 640/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0038 - val\_loss: 0.0034  
Epoch 641/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0037  
Epoch 642/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0037

Epoch 643/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0036  
Epoch 644/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0038 - val\_loss: 0.0037  
Epoch 645/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0037 - val\_loss: 0.0037  
Epoch 646/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0038 - val\_loss: 0.0036  
Epoch 647/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0035 - val\_loss: 0.0035  
Epoch 648/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0035 - val\_loss: 0.0041  
Epoch 649/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0037 - val\_loss: 0.0036  
Epoch 650/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0037 - val\_loss: 0.0036  
Epoch 651/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0037 - val\_loss: 0.0039  
Epoch 652/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0037 - val\_loss: 0.0038  
Epoch 653/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0038 - val\_loss: 0.0034  
Epoch 654/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0036  
Epoch 655/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0037 - val\_loss: 0.0041  
Epoch 656/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0038 - val\_loss: 0.0036  
Epoch 657/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0037 - val\_loss: 0.0040  
Epoch 658/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0039

Epoch 659/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0038 - val\_loss: 0.0036  
Epoch 660/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0038 - val\_loss: 0.0038  
Epoch 661/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0037  
Epoch 662/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0038 - val\_loss: 0.0037  
Epoch 663/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0036 - val\_loss: 0.0041  
Epoch 664/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0037 - val\_loss: 0.0035  
Epoch 665/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0038 - val\_loss: 0.0039  
Epoch 666/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0036 - val\_loss: 0.0036  
Epoch 667/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0036 - val\_loss: 0.0036  
Epoch 668/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0037 - val\_loss: 0.0035  
Epoch 669/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0034 - val\_loss: 0.0036  
Epoch 670/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0035 - val\_loss: 0.0035  
Epoch 671/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0037 - val\_loss: 0.0037  
Epoch 672/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0036 - val\_loss: 0.0037  
Epoch 673/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0037 - val\_loss: 0.0037  
Epoch 674/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0037 - val\_loss: 0.0037

Epoch 675/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0036 - val\_loss: 0.0042  
Epoch 676/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0041 - val\_loss: 0.0042  
Epoch 677/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0039 - val\_loss: 0.0035  
Epoch 678/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0036 - val\_loss: 0.0035  
Epoch 679/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0037 - val\_loss: 0.0038  
Epoch 680/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0036  
Epoch 681/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0035 - val\_loss: 0.0038  
Epoch 682/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0034 - val\_loss: 0.0034  
Epoch 683/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0037 - val\_loss: 0.0034  
Epoch 684/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0037 - val\_loss: 0.0036  
Epoch 685/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0034  
Epoch 686/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0035 - val\_loss: 0.0034  
Epoch 687/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0033 - val\_loss: 0.0034  
Epoch 688/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0037 - val\_loss: 0.0035  
Epoch 689/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0036  
Epoch 690/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0035 - val\_loss: 0.0038

Epoch 691/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0040 - val\_loss: 0.0037  
Epoch 692/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0038 - val\_loss: 0.0036  
Epoch 693/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0034 - val\_loss: 0.0035  
Epoch 694/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0035 - val\_loss: 0.0035  
Epoch 695/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0034  
Epoch 696/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0040  
Epoch 697/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0038 - val\_loss: 0.0034  
Epoch 698/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0037 - val\_loss: 0.0033  
Epoch 699/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0034 - val\_loss: 0.0033  
Epoch 700/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0035 - val\_loss: 0.0033  
Epoch 701/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0040  
Epoch 702/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0037 - val\_loss: 0.0034  
Epoch 703/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0038 - val\_loss: 0.0036  
Epoch 704/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0040 - val\_loss: 0.0041  
Epoch 705/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0038 - val\_loss: 0.0035  
Epoch 706/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0035 - val\_loss: 0.0034

Epoch 707/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0036  
Epoch 708/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0036  
Epoch 709/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0036  
Epoch 710/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0035 - val\_loss: 0.0036  
Epoch 711/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0040  
Epoch 712/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0037 - val\_loss: 0.0035  
Epoch 713/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0036 - val\_loss: 0.0034  
Epoch 714/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0036 - val\_loss: 0.0037  
Epoch 715/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0035 - val\_loss: 0.0036  
Epoch 716/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0035 - val\_loss: 0.0035  
Epoch 717/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0034 - val\_loss: 0.0033  
Epoch 718/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0034 - val\_loss: 0.0034  
Epoch 719/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0034 - val\_loss: 0.0034  
Epoch 720/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0032  
Epoch 721/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0035  
Epoch 722/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0033 - val\_loss: 0.0034

Epoch 723/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0034 - val\_loss: 0.0036

Epoch 724/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0034 - val\_loss: 0.0034

Epoch 725/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0035

Epoch 726/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0035 - val\_loss: 0.0034

Epoch 727/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0033 - val\_loss: 0.0033

Epoch 728/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0034 - val\_loss: 0.0040

Epoch 729/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0035 - val\_loss: 0.0034

Epoch 730/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0034

Epoch 731/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0038 - val\_loss: 0.0039

Epoch 732/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0035 - val\_loss: 0.0033

Epoch 733/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0037 - val\_loss: 0.0033

Epoch 734/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0035 - val\_loss: 0.0033

Epoch 735/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0035 - val\_loss: 0.0035

Epoch 736/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0037 - val\_loss: 0.0031

Epoch 737/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0035 - val\_loss: 0.0032

Epoch 738/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0035 - val\_loss: 0.0039

Epoch 739/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0034 - val\_loss: 0.0031  
Epoch 740/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0034 - val\_loss: 0.0035  
Epoch 741/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0035 - val\_loss: 0.0036  
Epoch 742/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0033 - val\_loss: 0.0033  
Epoch 743/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0033 - val\_loss: 0.0033  
Epoch 744/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0037 - val\_loss: 0.0034  
Epoch 745/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0041 - val\_loss: 0.0032  
Epoch 746/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0037  
Epoch 747/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0035 - val\_loss: 0.0033  
Epoch 748/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0033 - val\_loss: 0.0033  
Epoch 749/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0033 - val\_loss: 0.0033  
Epoch 750/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0037 - val\_loss: 0.0034  
Epoch 751/100000  
63/63 [=====] - 0s 7ms/step - loss: 0.0035 - val\_loss: 0.0036  
Epoch 752/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0036 - val\_loss: 0.0035  
Epoch 753/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0034 - val\_loss: 0.0035  
Epoch 754/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0035 - val\_loss: 0.0036



Epoch 755/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0035 - val\_loss: 0.0035  
Epoch 756/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0034 - val\_loss: 0.0033  
Epoch 757/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0035 - val\_loss: 0.0038  
Epoch 758/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0034 - val\_loss: 0.0034  
Epoch 759/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0033 - val\_loss: 0.0034  
Epoch 760/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0034 - val\_loss: 0.0033  
Epoch 761/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0033 - val\_loss: 0.0036  
Epoch 762/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0034 - val\_loss: 0.0032  
Epoch 763/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0032 - val\_loss: 0.0032  
Epoch 764/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0033 - val\_loss: 0.0033  
Epoch 765/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0036 - val\_loss: 0.0032  
Epoch 766/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0036 - val\_loss: 0.0037  
Epoch 767/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0035 - val\_loss: 0.0037  
Epoch 768/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0035 - val\_loss: 0.0035  
Epoch 769/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0039 - val\_loss: 0.0034  
Epoch 770/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0038 - val\_loss: 0.0035

Epoch 771/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0042  
Epoch 772/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0032  
Epoch 773/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0035  
Epoch 774/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0033  
Epoch 775/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0035 - val\_loss: 0.0034  
Epoch 776/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0033 - val\_loss: 0.0036  
Epoch 777/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0038 - val\_loss: 0.0039  
Epoch 778/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0038 - val\_loss: 0.0034  
Epoch 779/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0037 - val\_loss: 0.0034  
Epoch 780/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0034 - val\_loss: 0.0034  
Epoch 781/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0033 - val\_loss: 0.0032  
Epoch 782/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0034 - val\_loss: 0.0036  
Epoch 783/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0035 - val\_loss: 0.0033  
Epoch 784/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0035 - val\_loss: 0.0033  
Epoch 785/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0033 - val\_loss: 0.0035  
Epoch 786/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0034

Epoch 787/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0033  
Epoch 788/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0035 - val\_loss: 0.0036  
Epoch 789/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0035 - val\_loss: 0.0033  
Epoch 790/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0032 - val\_loss: 0.0033  
Epoch 791/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0034 - val\_loss: 0.0035  
Epoch 792/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0033 - val\_loss: 0.0031  
Epoch 793/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0032 - val\_loss: 0.0032  
Epoch 794/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0034 - val\_loss: 0.0033  
Epoch 795/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0042  
Epoch 796/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0034 - val\_loss: 0.0032  
Epoch 797/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0033 - val\_loss: 0.0033  
Epoch 798/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0034 - val\_loss: 0.0033  
Epoch 799/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0034 - val\_loss: 0.0039  
Epoch 800/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0034  
Epoch 801/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0033 - val\_loss: 0.0033  
Epoch 802/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0034 - val\_loss: 0.0032

Epoch 803/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0033 - val\_loss: 0.0035  
Epoch 804/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0034 - val\_loss: 0.0031  
Epoch 805/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0033 - val\_loss: 0.0032  
Epoch 806/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0033 - val\_loss: 0.0035  
Epoch 807/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0034 - val\_loss: 0.0035  
Epoch 808/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0036  
Epoch 809/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss: 0.0032  
Epoch 810/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0034 - val\_loss: 0.0032  
Epoch 811/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0033 - val\_loss: 0.0033  
Epoch 812/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0035 - val\_loss: 0.0032  
Epoch 813/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0034 - val\_loss: 0.0033  
Epoch 814/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0035 - val\_loss: 0.0036  
Epoch 815/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0035 - val\_loss: 0.0036  
Epoch 816/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0034 - val\_loss: 0.0030  
Epoch 817/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0032 - val\_loss: 0.0029  
Epoch 818/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss: 0.0030

Epoch 819/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0035 - val\_loss: 0.0035  
Epoch 820/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0035 - val\_loss: 0.0038  
Epoch 821/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0040 - val\_loss: 0.0045  
Epoch 822/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0038 - val\_loss: 0.0033  
Epoch 823/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0034 - val\_loss: 0.0040  
Epoch 824/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0034 - val\_loss: 0.0033  
Epoch 825/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0035 - val\_loss: 0.0036  
Epoch 826/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0039  
Epoch 827/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0039 - val\_loss: 0.0038  
Epoch 828/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0037 - val\_loss: 0.0036  
Epoch 829/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0035 - val\_loss: 0.0032  
Epoch 830/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0035 - val\_loss: 0.0034  
Epoch 831/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0037 - val\_loss: 0.0041  
Epoch 832/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0037 - val\_loss: 0.0034  
Epoch 833/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0033 - val\_loss: 0.0032  
Epoch 834/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0033 - val\_loss: 0.0033

Epoch 835/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0033 - val\_loss: 0.0034  
Epoch 836/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0037 - val\_loss: 0.0034  
Epoch 837/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0034 - val\_loss: 0.0032  
Epoch 838/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0031 - val\_loss: 0.0031  
Epoch 839/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0031 - val\_loss: 0.0031  
Epoch 840/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0035 - val\_loss: 0.0030  
Epoch 841/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0032 - val\_loss: 0.0031  
Epoch 842/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0031 - val\_loss: 0.0031  
Epoch 843/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0032 - val\_loss: 0.0030  
Epoch 844/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0033 - val\_loss: 0.0032  
Epoch 845/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0034 - val\_loss: 0.0033  
Epoch 846/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0033 - val\_loss: 0.0032  
Epoch 847/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0033 - val\_loss: 0.0032  
Epoch 848/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0033 - val\_loss: 0.0033  
Epoch 849/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0044  
Epoch 850/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0038 - val\_loss: 0.0035

Epoch 851/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0035 - val\_loss: 0.0035  
Epoch 852/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0035 - val\_loss: 0.0031  
Epoch 853/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0035 - val\_loss: 0.0034  
Epoch 854/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0036 - val\_loss: 0.0032  
Epoch 855/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0034 - val\_loss: 0.0043  
Epoch 856/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0035 - val\_loss: 0.0032  
Epoch 857/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0033 - val\_loss: 0.0031  
Epoch 858/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0033 - val\_loss: 0.0032  
Epoch 859/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0035 - val\_loss: 0.0036  
Epoch 860/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0034 - val\_loss: 0.0035  
Epoch 861/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0035 - val\_loss: 0.0032  
Epoch 862/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0035 - val\_loss: 0.0035  
Epoch 863/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0034 - val\_loss: 0.0031  
Epoch 864/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0033 - val\_loss: 0.0031  
Epoch 865/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0033 - val\_loss: 0.0030  
Epoch 866/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0032 - val\_loss: 0.0035

Epoch 867/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0032 - val\_loss:  
0.0031  
Epoch 868/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss:  
0.0033  
Epoch 869/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0032 - val\_loss:  
0.0032  
Epoch 870/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0034 - val\_loss:  
0.0032  
Epoch 871/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0034 - val\_loss:  
0.0036  
Epoch 872/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0033 - val\_loss:  
0.0035  
Epoch 873/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0033 - val\_loss:  
0.0031  
Epoch 874/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0032 - val\_loss:  
0.0032  
Epoch 875/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0034 - val\_loss:  
0.0031  
Epoch 876/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0032 - val\_loss:  
0.0032  
Epoch 877/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0032 - val\_loss:  
0.0029  
Epoch 878/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0033 - val\_loss:  
0.0031  
Epoch 879/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0032 - val\_loss:  
0.0031  
Epoch 880/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0032 - val\_loss:  
0.0031  
Epoch 881/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0031 - val\_loss:  
0.0038  
Epoch 882/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0038 - val\_loss:  
0.0036



Epoch 883/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0033 - val\_loss: 0.0033  
Epoch 884/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0031 - val\_loss: 0.0031  
Epoch 885/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0033 - val\_loss: 0.0032  
Epoch 886/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0032 - val\_loss: 0.0030  
Epoch 887/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0032 - val\_loss: 0.0031  
Epoch 888/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0030 - val\_loss: 0.0031  
Epoch 889/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0033 - val\_loss: 0.0035  
Epoch 890/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0031 - val\_loss: 0.0032  
Epoch 891/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0031 - val\_loss: 0.0027  
Epoch 892/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0030 - val\_loss: 0.0030  
Epoch 893/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0037 - val\_loss: 0.0039  
Epoch 894/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0035 - val\_loss: 0.0032  
Epoch 895/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss: 0.0031  
Epoch 896/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss: 0.0029  
Epoch 897/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0032 - val\_loss: 0.0032  
Epoch 898/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0031 - val\_loss: 0.0031

Epoch 899/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0032 - val\_loss: 0.0034  
Epoch 900/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0033 - val\_loss: 0.0031  
Epoch 901/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0031 - val\_loss: 0.0034  
Epoch 902/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0034 - val\_loss: 0.0031  
Epoch 903/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0031 - val\_loss: 0.0030  
Epoch 904/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss: 0.0032  
Epoch 905/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0032 - val\_loss: 0.0031  
Epoch 906/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss: 0.0029  
Epoch 907/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0030 - val\_loss: 0.0031  
Epoch 908/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0033 - val\_loss: 0.0032  
Epoch 909/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0030 - val\_loss: 0.0035  
Epoch 910/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0032 - val\_loss: 0.0030  
Epoch 911/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0030 - val\_loss: 0.0030  
Epoch 912/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0030 - val\_loss: 0.0029  
Epoch 913/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0041 - val\_loss: 0.0041  
Epoch 914/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0035 - val\_loss: 0.0030

Epoch 915/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0031 - val\_loss: 0.0035  
Epoch 916/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0031 - val\_loss: 0.0030  
Epoch 917/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0030 - val\_loss: 0.0031  
Epoch 918/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0030 - val\_loss: 0.0033  
Epoch 919/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss: 0.0034  
Epoch 920/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0032 - val\_loss: 0.0033  
Epoch 921/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0031 - val\_loss: 0.0028  
Epoch 922/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0029 - val\_loss: 0.0027  
Epoch 923/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0030 - val\_loss: 0.0031  
Epoch 924/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss: 0.0029  
Epoch 925/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0029 - val\_loss: 0.0028  
Epoch 926/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0031 - val\_loss: 0.0030  
Epoch 927/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss: 0.0029  
Epoch 928/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0032 - val\_loss: 0.0031  
Epoch 929/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss: 0.0029  
Epoch 930/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0031 - val\_loss: 0.0033

Epoch 931/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0033 - val\_loss: 0.0034  
Epoch 932/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0030 - val\_loss: 0.0029  
Epoch 933/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0031 - val\_loss: 0.0030  
Epoch 934/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0030 - val\_loss: 0.0030  
Epoch 935/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0038 - val\_loss: 0.0033  
Epoch 936/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0030 - val\_loss: 0.0029  
Epoch 937/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0029 - val\_loss: 0.0029  
Epoch 938/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0029 - val\_loss: 0.0027  
Epoch 939/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0028 - val\_loss: 0.0027  
Epoch 940/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0027 - val\_loss: 0.0026  
Epoch 941/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0032 - val\_loss: 0.0029  
Epoch 942/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0029 - val\_loss: 0.0027  
Epoch 943/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0030 - val\_loss: 0.0028  
Epoch 944/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0027 - val\_loss: 0.0026  
Epoch 945/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0028 - val\_loss: 0.0027  
Epoch 946/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0029 - val\_loss: 0.0026

Epoch 947/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0030 - val\_loss: 0.0026  
Epoch 948/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0028 - val\_loss: 0.0027  
Epoch 949/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0031 - val\_loss: 0.0027  
Epoch 950/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0028 - val\_loss: 0.0028  
Epoch 951/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0028 - val\_loss: 0.0034  
Epoch 952/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0030 - val\_loss: 0.0031  
Epoch 953/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0031 - val\_loss: 0.0030  
Epoch 954/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0028 - val\_loss: 0.0027  
Epoch 955/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0030 - val\_loss: 0.0025  
Epoch 956/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0027 - val\_loss: 0.0029  
Epoch 957/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0032 - val\_loss: 0.0027  
Epoch 958/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0026 - val\_loss: 0.0024  
Epoch 959/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0028 - val\_loss: 0.0027  
Epoch 960/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0027 - val\_loss: 0.0027  
Epoch 961/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0028 - val\_loss: 0.0026  
Epoch 962/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0027 - val\_loss: 0.0027

Epoch 963/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0027 - val\_loss: 0.0026  
Epoch 964/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0029 - val\_loss: 0.0031  
Epoch 965/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0031 - val\_loss: 0.0033  
Epoch 966/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0029 - val\_loss: 0.0028  
Epoch 967/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0029 - val\_loss: 0.0033  
Epoch 968/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0028 - val\_loss: 0.0031  
Epoch 969/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0028 - val\_loss: 0.0024  
Epoch 970/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0028 - val\_loss: 0.0028  
Epoch 971/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0028 - val\_loss: 0.0029  
Epoch 972/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0032 - val\_loss: 0.0026  
Epoch 973/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0028 - val\_loss: 0.0033  
Epoch 974/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0029 - val\_loss: 0.0027  
Epoch 975/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0029 - val\_loss: 0.0027  
Epoch 976/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0032 - val\_loss: 0.0029  
Epoch 977/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0029 - val\_loss: 0.0029  
Epoch 978/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0029 - val\_loss: 0.0043

Epoch 979/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0033 - val\_loss: 0.0026

Epoch 980/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0028 - val\_loss: 0.0027

Epoch 981/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0028

Epoch 982/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0025

Epoch 983/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0027 - val\_loss: 0.0026

Epoch 984/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0030

Epoch 985/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0030 - val\_loss: 0.0029

Epoch 986/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0026 - val\_loss: 0.0027

Epoch 987/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0026 - val\_loss: 0.0025

Epoch 988/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0027 - val\_loss: 0.0032

Epoch 989/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0029 - val\_loss: 0.0027

Epoch 990/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0027 - val\_loss: 0.0027

Epoch 991/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0029 - val\_loss: 0.0027

Epoch 992/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0029 - val\_loss: 0.0027

Epoch 993/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0026 - val\_loss: 0.0025

Epoch 994/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0026 - val\_loss: 0.0025

Epoch 995/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0027 - val\_loss: 0.0024

Epoch 996/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0031 - val\_loss: 0.0030

Epoch 997/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0028 - val\_loss: 0.0025

Epoch 998/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0028 - val\_loss: 0.0026

Epoch 999/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0029 - val\_loss: 0.0029

Epoch 1000/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0028 - val\_loss: 0.0027

Epoch 1001/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0027 - val\_loss: 0.0026

Epoch 1002/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0028 - val\_loss: 0.0027

Epoch 1003/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0029 - val\_loss: 0.0029

Epoch 1004/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0029 - val\_loss: 0.0030

Epoch 1005/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0029 - val\_loss: 0.0028

Epoch 1006/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0029 - val\_loss: 0.0027

Epoch 1007/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0027 - val\_loss: 0.0030

Epoch 1008/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0031 - val\_loss: 0.0032

Epoch 1009/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0035 - val\_loss: 0.0033

Epoch 1010/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0030 - val\_loss: 0.0029



Epoch 1011/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0026 - val\_loss: 0.0027

Epoch 1012/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0028 - val\_loss: 0.0030

Epoch 1013/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0026 - val\_loss: 0.0027

Epoch 1014/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0025 - val\_loss: 0.0027

Epoch 1015/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0026 - val\_loss: 0.0024

Epoch 1016/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0027 - val\_loss: 0.0029

Epoch 1017/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0028 - val\_loss: 0.0027

Epoch 1018/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0030 - val\_loss: 0.0027

Epoch 1019/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0025

Epoch 1020/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0029

Epoch 1021/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0030 - val\_loss: 0.0026

Epoch 1022/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0027 - val\_loss: 0.0028

Epoch 1023/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0027

Epoch 1024/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0026

Epoch 1025/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss: 0.0026

Epoch 1026/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0025

Epoch 1027/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0027  
Epoch 1028/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0024  
Epoch 1029/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0026  
Epoch 1030/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0024  
Epoch 1031/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0025  
Epoch 1032/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0029  
Epoch 1033/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0028  
Epoch 1034/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0033 - val\_loss: 0.0029  
Epoch 1035/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0024  
Epoch 1036/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0025  
Epoch 1037/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0026  
Epoch 1038/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0032 - val\_loss: 0.0032  
Epoch 1039/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0025  
Epoch 1040/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0034  
Epoch 1041/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0030 - val\_loss: 0.0028  
Epoch 1042/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0030 - val\_loss: 0.0029

Epoch 1043/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0027  
Epoch 1044/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0029 - val\_loss: 0.0032  
Epoch 1045/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0029 - val\_loss: 0.0032  
Epoch 1046/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0032 - val\_loss: 0.0028  
Epoch 1047/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0029  
Epoch 1048/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0030 - val\_loss: 0.0027  
Epoch 1049/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0033 - val\_loss: 0.0029  
Epoch 1050/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0029 - val\_loss: 0.0030  
Epoch 1051/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0026  
Epoch 1052/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0025  
Epoch 1053/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0027  
Epoch 1054/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0031  
Epoch 1055/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0029 - val\_loss: 0.0036  
Epoch 1056/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0029 - val\_loss: 0.0023  
Epoch 1057/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0029 - val\_loss: 0.0037  
Epoch 1058/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0032 - val\_loss: 0.0030

Epoch 1059/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0030 - val\_loss: 0.0030  
Epoch 1060/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0029 - val\_loss: 0.0032  
Epoch 1061/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0032 - val\_loss: 0.0028  
Epoch 1062/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0025  
Epoch 1063/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0027  
Epoch 1064/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0029 - val\_loss: 0.0026  
Epoch 1065/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0027 - val\_loss: 0.0024  
Epoch 1066/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0026 - val\_loss: 0.0025  
Epoch 1067/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0028  
Epoch 1068/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0032 - val\_loss: 0.0030  
Epoch 1069/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0029 - val\_loss: 0.0028  
Epoch 1070/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0028 - val\_loss: 0.0028  
Epoch 1071/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0030 - val\_loss: 0.0032  
Epoch 1072/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0027  
Epoch 1073/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0028  
Epoch 1074/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0030 - val\_loss: 0.0031

Epoch 1075/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss: 0.0032

Epoch 1076/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0034 - val\_loss: 0.0051

Epoch 1077/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0050 - val\_loss: 0.0048

Epoch 1078/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0045 - val\_loss: 0.0046

Epoch 1079/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0041 - val\_loss: 0.0046

Epoch 1080/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0040 - val\_loss: 0.0042

Epoch 1081/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0039 - val\_loss: 0.0042

Epoch 1082/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0041 - val\_loss: 0.0052

Epoch 1083/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0042 - val\_loss: 0.0038

Epoch 1084/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0039 - val\_loss: 0.0041

Epoch 1085/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0037 - val\_loss: 0.0036

Epoch 1086/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0038

Epoch 1087/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0040 - val\_loss: 0.0038

Epoch 1088/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0042 - val\_loss: 0.0041

Epoch 1089/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0039 - val\_loss: 0.0040

Epoch 1090/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0035 - val\_loss: 0.0038

Epoch 1091/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0032 - val\_loss: 0.0033

Epoch 1092/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0030 - val\_loss: 0.0032

Epoch 1093/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0033 - val\_loss: 0.0029

Epoch 1094/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0030 - val\_loss: 0.0028

Epoch 1095/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0030

Epoch 1096/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0030

Epoch 1097/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0031

Epoch 1098/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0024

Epoch 1099/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0029

Epoch 1100/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0030 - val\_loss: 0.0030

Epoch 1101/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0025

Epoch 1102/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0027

Epoch 1103/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss: 0.0031

Epoch 1104/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0028

Epoch 1105/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0025

Epoch 1106/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0031

Epoch 1107/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0027  
Epoch 1108/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0029  
Epoch 1109/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss: 0.0031  
Epoch 1110/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss: 0.0032  
Epoch 1111/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0030 - val\_loss: 0.0030  
Epoch 1112/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0027  
Epoch 1113/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0026  
Epoch 1114/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0024  
Epoch 1115/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0026  
Epoch 1116/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0027  
Epoch 1117/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0024  
Epoch 1118/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0027 - val\_loss: 0.0024  
Epoch 1119/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0025 - val\_loss: 0.0025  
Epoch 1120/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0027  
Epoch 1121/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0033  
Epoch 1122/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0024

Epoch 1123/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0025  
Epoch 1124/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0024  
Epoch 1125/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0024  
Epoch 1126/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0025  
Epoch 1127/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0026  
Epoch 1128/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0033  
Epoch 1129/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0023  
Epoch 1130/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0024  
Epoch 1131/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0024  
Epoch 1132/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0025  
Epoch 1133/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0024  
Epoch 1134/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0026  
Epoch 1135/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0027  
Epoch 1136/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0028  
Epoch 1137/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0023  
Epoch 1138/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0030 - val\_loss: 0.0030



Epoch 1139/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0025  
Epoch 1140/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0029 - val\_loss: 0.0036  
Epoch 1141/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss: 0.0028  
Epoch 1142/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0026  
Epoch 1143/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0025  
Epoch 1144/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0033 - val\_loss: 0.0029  
Epoch 1145/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0030 - val\_loss: 0.0027  
Epoch 1146/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0026  
Epoch 1147/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0027  
Epoch 1148/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0026  
Epoch 1149/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0025  
Epoch 1150/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0029 - val\_loss: 0.0028  
Epoch 1151/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0030  
Epoch 1152/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0024  
Epoch 1153/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0025  
Epoch 1154/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0024

Epoch 1155/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0027 - val\_loss: 0.0032  
Epoch 1156/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0029 - val\_loss: 0.0024  
Epoch 1157/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0035  
Epoch 1158/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0026  
Epoch 1159/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0040 - val\_loss: 0.0049  
Epoch 1160/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0048 - val\_loss: 0.0049  
Epoch 1161/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0041 - val\_loss: 0.0050  
Epoch 1162/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0032 - val\_loss: 0.0027  
Epoch 1163/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0024  
Epoch 1164/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0027  
Epoch 1165/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0029  
Epoch 1166/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0027 - val\_loss: 0.0027  
Epoch 1167/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0027 - val\_loss: 0.0030  
Epoch 1168/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0027  
Epoch 1169/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0026  
Epoch 1170/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0025 - val\_loss: 0.0024

Epoch 1171/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0024

Epoch 1172/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0025 - val\_loss: 0.0026

Epoch 1173/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0041

Epoch 1174/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0025

Epoch 1175/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0034 - val\_loss: 0.0028

Epoch 1176/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0030 - val\_loss: 0.0032

Epoch 1177/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0025

Epoch 1178/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0052

Epoch 1179/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0032 - val\_loss: 0.0026

Epoch 1180/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0036

Epoch 1181/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0030

Epoch 1182/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0026 - val\_loss: 0.0023

Epoch 1183/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0028

Epoch 1184/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0021

Epoch 1185/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0025

Epoch 1186/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0031

Epoch 1187/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0025  
Epoch 1188/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0025  
Epoch 1189/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0025  
Epoch 1190/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0025  
Epoch 1191/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0025  
Epoch 1192/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0023  
Epoch 1193/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0029  
Epoch 1194/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0025  
Epoch 1195/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0023 - val\_loss: 0.0023  
Epoch 1196/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0024  
Epoch 1197/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0033  
Epoch 1198/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0023  
Epoch 1199/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0026  
Epoch 1200/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0022  
Epoch 1201/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0025  
Epoch 1202/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0025

Epoch 1203/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0022

Epoch 1204/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0029 - val\_loss: 0.0027

Epoch 1205/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0024

Epoch 1206/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0024

Epoch 1207/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0023

Epoch 1208/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0025

Epoch 1209/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0024 - val\_loss: 0.0037

Epoch 1210/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0035 - val\_loss: 0.0028

Epoch 1211/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0026

Epoch 1212/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0023

Epoch 1213/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0023

Epoch 1214/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0026

Epoch 1215/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0027

Epoch 1216/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0026

Epoch 1217/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0024

Epoch 1218/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0024

Epoch 1219/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0031  
Epoch 1220/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0035  
Epoch 1221/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0045 - val\_loss: 0.0042  
Epoch 1222/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0038 - val\_loss: 0.0039  
Epoch 1223/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0040 - val\_loss: 0.0037  
Epoch 1224/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0037 - val\_loss: 0.0051  
Epoch 1225/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0041 - val\_loss: 0.0037  
Epoch 1226/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0036  
Epoch 1227/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0034  
Epoch 1228/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0035 - val\_loss: 0.0052  
Epoch 1229/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0044 - val\_loss: 0.0038  
Epoch 1230/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0033 - val\_loss: 0.0032  
Epoch 1231/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0030 - val\_loss: 0.0028  
Epoch 1232/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0030 - val\_loss: 0.0032  
Epoch 1233/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0030 - val\_loss: 0.0030  
Epoch 1234/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0026

Epoch 1235/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0029 - val\_loss: 0.0027  
Epoch 1236/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0029 - val\_loss: 0.0029  
Epoch 1237/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0029 - val\_loss: 0.0031  
Epoch 1238/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss: 0.0035  
Epoch 1239/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0032 - val\_loss: 0.0049  
Epoch 1240/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0040 - val\_loss: 0.0036  
Epoch 1241/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0035 - val\_loss: 0.0035  
Epoch 1242/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0034 - val\_loss: 0.0032  
Epoch 1243/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0035 - val\_loss: 0.0047  
Epoch 1244/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0033  
Epoch 1245/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0033 - val\_loss: 0.0033  
Epoch 1246/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss: 0.0032  
Epoch 1247/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss: 0.0032  
Epoch 1248/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0030 - val\_loss: 0.0033  
Epoch 1249/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0032 - val\_loss: 0.0036  
Epoch 1250/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0034 - val\_loss: 0.0033

Epoch 1251/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0032 - val\_loss: 0.0036  
Epoch 1252/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0038 - val\_loss: 0.0035  
Epoch 1253/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss: 0.0034  
Epoch 1254/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss: 0.0031  
Epoch 1255/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss: 0.0030  
Epoch 1256/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0032 - val\_loss: 0.0029  
Epoch 1257/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0033 - val\_loss: 0.0035  
Epoch 1258/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0030 - val\_loss: 0.0029  
Epoch 1259/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0029  
Epoch 1260/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0030 - val\_loss: 0.0030  
Epoch 1261/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss: 0.0031  
Epoch 1262/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0032 - val\_loss: 0.0029  
Epoch 1263/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0028  
Epoch 1264/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0024  
Epoch 1265/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0026  
Epoch 1266/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0029



Epoch 1267/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0024  
Epoch 1268/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0026  
Epoch 1269/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0026  
Epoch 1270/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0026  
Epoch 1271/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0027  
Epoch 1272/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0025  
Epoch 1273/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0027  
Epoch 1274/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0025  
Epoch 1275/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0027  
Epoch 1276/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0024  
Epoch 1277/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0025  
Epoch 1278/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0025  
Epoch 1279/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0029 - val\_loss: 0.0042  
Epoch 1280/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0038 - val\_loss: 0.0032  
Epoch 1281/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0030 - val\_loss: 0.0028  
Epoch 1282/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0025

Epoch 1283/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0030  
Epoch 1284/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0028  
Epoch 1285/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0030  
Epoch 1286/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0028  
Epoch 1287/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0028 - val\_loss: 0.0027  
Epoch 1288/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0027 - val\_loss: 0.0026  
Epoch 1289/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0033 - val\_loss: 0.0042  
Epoch 1290/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0029  
Epoch 1291/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0024  
Epoch 1292/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0027  
Epoch 1293/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0028  
Epoch 1294/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0026  
Epoch 1295/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0029 - val\_loss: 0.0031  
Epoch 1296/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0025  
Epoch 1297/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0023  
Epoch 1298/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0030

Epoch 1299/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0021  
Epoch 1300/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0020  
Epoch 1301/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0025  
Epoch 1302/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0035  
Epoch 1303/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0034 - val\_loss: 0.0038  
Epoch 1304/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0047 - val\_loss: 0.0044  
Epoch 1305/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0043 - val\_loss: 0.0039  
Epoch 1306/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0047 - val\_loss: 0.0041  
Epoch 1307/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0039 - val\_loss: 0.0033  
Epoch 1308/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0035 - val\_loss: 0.0028  
Epoch 1309/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0025  
Epoch 1310/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0024  
Epoch 1311/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0025  
Epoch 1312/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0022  
Epoch 1313/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0022  
Epoch 1314/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0023

Epoch 1315/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0023

Epoch 1316/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0023

Epoch 1317/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0025

Epoch 1318/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0021

Epoch 1319/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0022

Epoch 1320/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0028

Epoch 1321/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0029 - val\_loss: 0.0033

Epoch 1322/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0028

Epoch 1323/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0022

Epoch 1324/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0021

Epoch 1325/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0022

Epoch 1326/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0026

Epoch 1327/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0021

Epoch 1328/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0027

Epoch 1329/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss: 0.0052

Epoch 1330/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0043 - val\_loss: 0.0032

Epoch 1331/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0037 - val\_loss: 0.0043  
Epoch 1332/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0039 - val\_loss: 0.0032  
Epoch 1333/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0027  
Epoch 1334/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0026  
Epoch 1335/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0022  
Epoch 1336/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0027  
Epoch 1337/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0030  
Epoch 1338/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0029  
Epoch 1339/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0025  
Epoch 1340/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0023  
Epoch 1341/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0036  
Epoch 1342/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0029 - val\_loss: 0.0031  
Epoch 1343/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0021  
Epoch 1344/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0020  
Epoch 1345/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0026  
Epoch 1346/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0025

Epoch 1347/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0024

Epoch 1348/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0028

Epoch 1349/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0021

Epoch 1350/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0021

Epoch 1351/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0032

Epoch 1352/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0033 - val\_loss: 0.0029

Epoch 1353/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0026

Epoch 1354/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0033

Epoch 1355/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0032

Epoch 1356/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0035 - val\_loss: 0.0033

Epoch 1357/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0032 - val\_loss: 0.0030

Epoch 1358/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0030

Epoch 1359/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0030

Epoch 1360/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0029

Epoch 1361/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0025

Epoch 1362/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0030 - val\_loss: 0.0031

Epoch 1363/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0032 - val\_loss: 0.0031  
Epoch 1364/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0028 - val\_loss: 0.0026  
Epoch 1365/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0029 - val\_loss: 0.0032  
Epoch 1366/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0029  
Epoch 1367/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0032 - val\_loss: 0.0023  
Epoch 1368/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0023  
Epoch 1369/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0023 - val\_loss: 0.0024  
Epoch 1370/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0025 - val\_loss: 0.0025  
Epoch 1371/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0025  
Epoch 1372/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0025  
Epoch 1373/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0026  
Epoch 1374/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0034  
Epoch 1375/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0030 - val\_loss: 0.0028  
Epoch 1376/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0040 - val\_loss: 0.0033  
Epoch 1377/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0030 - val\_loss: 0.0025  
Epoch 1378/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0023

Epoch 1379/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss:  
0.0022  
Epoch 1380/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss:  
0.0023  
Epoch 1381/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss:  
0.0026  
Epoch 1382/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss:  
0.0025  
Epoch 1383/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0026 - val\_loss:  
0.0024  
Epoch 1384/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss:  
0.0023  
Epoch 1385/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss:  
0.0023  
Epoch 1386/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0022 - val\_loss:  
0.0024  
Epoch 1387/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0022 - val\_loss:  
0.0024  
Epoch 1388/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss:  
0.0026  
Epoch 1389/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss:  
0.0026  
Epoch 1390/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss:  
0.0029  
Epoch 1391/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss:  
0.0027  
Epoch 1392/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss:  
0.0028  
Epoch 1393/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss:  
0.0022  
Epoch 1394/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss:  
0.0022



Epoch 1395/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0026  
Epoch 1396/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0025  
Epoch 1397/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0025  
Epoch 1398/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0020  
Epoch 1399/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0022  
Epoch 1400/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0026  
Epoch 1401/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0021  
Epoch 1402/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0028  
Epoch 1403/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0021  
Epoch 1404/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0023  
Epoch 1405/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0022  
Epoch 1406/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0021  
Epoch 1407/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0022  
Epoch 1408/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0020  
Epoch 1409/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0021  
Epoch 1410/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0022

Epoch 1411/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0029 - val\_loss: 0.0036

Epoch 1412/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0021

Epoch 1413/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0022

Epoch 1414/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0024 - val\_loss: 0.0022

Epoch 1415/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0022 - val\_loss: 0.0021

Epoch 1416/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0021

Epoch 1417/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0022 - val\_loss: 0.0024

Epoch 1418/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0022

Epoch 1419/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0022

Epoch 1420/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0026

Epoch 1421/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0022

Epoch 1422/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0022

Epoch 1423/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0024

Epoch 1424/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0024

Epoch 1425/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0024

Epoch 1426/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0023

Epoch 1427/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0021

Epoch 1428/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0021

Epoch 1429/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0021

Epoch 1430/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0022 - val\_loss: 0.0023

Epoch 1431/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0023 - val\_loss: 0.0022

Epoch 1432/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0025

Epoch 1433/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0022

Epoch 1434/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0022

Epoch 1435/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0021

Epoch 1436/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0022

Epoch 1437/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0023

Epoch 1438/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0021

Epoch 1439/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0023

Epoch 1440/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0024

Epoch 1441/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0021

Epoch 1442/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0023

Epoch 1443/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0027  
Epoch 1444/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0020  
Epoch 1445/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0021  
Epoch 1446/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0024  
Epoch 1447/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0030 - val\_loss: 0.0037  
Epoch 1448/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0032 - val\_loss: 0.0027  
Epoch 1449/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0028  
Epoch 1450/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0030 - val\_loss: 0.0026  
Epoch 1451/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0029  
Epoch 1452/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0023  
Epoch 1453/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0021  
Epoch 1454/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0020  
Epoch 1455/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0024  
Epoch 1456/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0020  
Epoch 1457/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0025  
Epoch 1458/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0023

Epoch 1459/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0024  
Epoch 1460/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0025  
Epoch 1461/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0022  
Epoch 1462/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0025 - val\_loss: 0.0025  
Epoch 1463/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0020  
Epoch 1464/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0022  
Epoch 1465/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0031  
Epoch 1466/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0028 - val\_loss: 0.0025  
Epoch 1467/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0024 - val\_loss: 0.0022  
Epoch 1468/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0021  
Epoch 1469/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0022  
Epoch 1470/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0022  
Epoch 1471/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0021  
Epoch 1472/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0021  
Epoch 1473/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0024  
Epoch 1474/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0022

Epoch 1475/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0021

Epoch 1476/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0024

Epoch 1477/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0023

Epoch 1478/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0021

Epoch 1479/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0021

Epoch 1480/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0022 - val\_loss: 0.0027

Epoch 1481/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0019

Epoch 1482/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0027

Epoch 1483/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0025

Epoch 1484/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0022

Epoch 1485/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0024

Epoch 1486/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0022

Epoch 1487/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0021

Epoch 1488/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0023

Epoch 1489/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0033

Epoch 1490/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0027

Epoch 1491/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0024  
Epoch 1492/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0026  
Epoch 1493/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0021  
Epoch 1494/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0031  
Epoch 1495/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0021  
Epoch 1496/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0023  
Epoch 1497/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0021  
Epoch 1498/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0020  
Epoch 1499/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0020  
Epoch 1500/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0022  
Epoch 1501/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0025  
Epoch 1502/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0020  
Epoch 1503/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0028  
Epoch 1504/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0022  
Epoch 1505/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0022 - val\_loss: 0.0021  
Epoch 1506/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0019

Epoch 1507/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0022  
Epoch 1508/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0021 - val\_loss: 0.0018  
Epoch 1509/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0020  
Epoch 1510/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0020 - val\_loss: 0.0020  
Epoch 1511/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0022 - val\_loss: 0.0021  
Epoch 1512/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0022  
Epoch 1513/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0023  
Epoch 1514/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0023  
Epoch 1515/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0024  
Epoch 1516/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0021  
Epoch 1517/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0023  
Epoch 1518/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0020 - val\_loss: 0.0022  
Epoch 1519/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0022  
Epoch 1520/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0021 - val\_loss: 0.0019  
Epoch 1521/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0020  
Epoch 1522/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0022 - val\_loss: 0.0021



Epoch 1523/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0023 - val\_loss: 0.0022

Epoch 1524/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0019 - val\_loss: 0.0020

Epoch 1525/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0019 - val\_loss: 0.0023

Epoch 1526/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0020 - val\_loss: 0.0021

Epoch 1527/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0040 - val\_loss: 0.0039

Epoch 1528/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0029 - val\_loss: 0.0025

Epoch 1529/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0023 - val\_loss: 0.0020

Epoch 1530/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0020 - val\_loss: 0.0021

Epoch 1531/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0022

Epoch 1532/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0020 - val\_loss: 0.0019

Epoch 1533/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0022

Epoch 1534/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0020

Epoch 1535/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0020 - val\_loss: 0.0018

Epoch 1536/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0018

Epoch 1537/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0026

Epoch 1538/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0024

Epoch 1539/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0027 - val\_loss: 0.0037  
Epoch 1540/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0030 - val\_loss: 0.0029  
Epoch 1541/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0030 - val\_loss: 0.0027  
Epoch 1542/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0021  
Epoch 1543/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0023  
Epoch 1544/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0021  
Epoch 1545/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0021 - val\_loss: 0.0024  
Epoch 1546/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0022 - val\_loss: 0.0019  
Epoch 1547/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0018  
Epoch 1548/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0022 - val\_loss: 0.0022  
Epoch 1549/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0019 - val\_loss: 0.0020  
Epoch 1550/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0021  
Epoch 1551/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0021 - val\_loss: 0.0021  
Epoch 1552/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0020 - val\_loss: 0.0022  
Epoch 1553/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0024  
Epoch 1554/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0019

Epoch 1555/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0024  
Epoch 1556/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0021 - val\_loss: 0.0020  
Epoch 1557/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0020 - val\_loss: 0.0021  
Epoch 1558/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0019 - val\_loss: 0.0023  
Epoch 1559/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0029  
Epoch 1560/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0022 - val\_loss: 0.0019  
Epoch 1561/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0020 - val\_loss: 0.0020  
Epoch 1562/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0022  
Epoch 1563/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0020  
Epoch 1564/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0020  
Epoch 1565/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0020  
Epoch 1566/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0019 - val\_loss: 0.0022  
Epoch 1567/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0021 - val\_loss: 0.0019  
Epoch 1568/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0021  
Epoch 1569/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0019  
Epoch 1570/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0021 - val\_loss: 0.0020

Epoch 1571/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0019  
Epoch 1572/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0026  
Epoch 1573/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0022  
Epoch 1574/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0022  
Epoch 1575/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0021 - val\_loss: 0.0023  
Epoch 1576/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0020 - val\_loss: 0.0019  
Epoch 1577/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0025  
Epoch 1578/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0024  
Epoch 1579/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0022 - val\_loss: 0.0023  
Epoch 1580/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0020  
Epoch 1581/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0019 - val\_loss: 0.0020  
Epoch 1582/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0020  
Epoch 1583/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0019 - val\_loss: 0.0023  
Epoch 1584/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0021  
Epoch 1585/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0020 - val\_loss: 0.0023  
Epoch 1586/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0018

Epoch 1587/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0020 - val\_loss: 0.0018  
Epoch 1588/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0019 - val\_loss: 0.0018  
Epoch 1589/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0019  
Epoch 1590/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss: 0.0018  
Epoch 1591/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0019 - val\_loss: 0.0018  
Epoch 1592/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0020  
Epoch 1593/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0024 - val\_loss: 0.0021  
Epoch 1594/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0023 - val\_loss: 0.0026  
Epoch 1595/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0024  
Epoch 1596/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss: 0.0020  
Epoch 1597/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0020 - val\_loss: 0.0019  
Epoch 1598/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0027  
Epoch 1599/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0027  
Epoch 1600/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0033 - val\_loss: 0.0052  
Epoch 1601/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0039 - val\_loss: 0.0038  
Epoch 1602/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0033 - val\_loss: 0.0030

Epoch 1603/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss: 0.0024  
Epoch 1604/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0022  
Epoch 1605/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0022  
Epoch 1606/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0020 - val\_loss: 0.0022  
Epoch 1607/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0027 - val\_loss: 0.0021  
Epoch 1608/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0021 - val\_loss: 0.0022  
Epoch 1609/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0021 - val\_loss: 0.0028  
Epoch 1610/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0029 - val\_loss: 0.0025  
Epoch 1611/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0020 - val\_loss: 0.0020  
Epoch 1612/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0023  
Epoch 1613/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0032  
Epoch 1614/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0019  
Epoch 1615/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0024  
Epoch 1616/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0019  
Epoch 1617/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0022  
Epoch 1618/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0022

Epoch 1619/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss:  
0.0022  
Epoch 1620/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss:  
0.0020  
Epoch 1621/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss:  
0.0021  
Epoch 1622/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss:  
0.0020  
Epoch 1623/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss:  
0.0019  
Epoch 1624/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss:  
0.0019  
Epoch 1625/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss:  
0.0021  
Epoch 1626/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0019 - val\_loss:  
0.0024  
Epoch 1627/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0021 - val\_loss:  
0.0020  
Epoch 1628/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss:  
0.0022  
Epoch 1629/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss:  
0.0020  
Epoch 1630/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss:  
0.0018  
Epoch 1631/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss:  
0.0022  
Epoch 1632/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss:  
0.0022  
Epoch 1633/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss:  
0.0024  
Epoch 1634/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss:  
0.0022

Epoch 1635/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss:  
0.0019  
Epoch 1636/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss:  
0.0019  
Epoch 1637/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss:  
0.0020  
Epoch 1638/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss:  
0.0021  
Epoch 1639/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss:  
0.0019  
Epoch 1640/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss:  
0.0020  
Epoch 1641/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss:  
0.0034  
Epoch 1642/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss:  
0.0021  
Epoch 1643/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss:  
0.0019  
Epoch 1644/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss:  
0.0021  
Epoch 1645/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss:  
0.0020  
Epoch 1646/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss:  
0.0022  
Epoch 1647/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss:  
0.0019  
Epoch 1648/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss:  
0.0023  
Epoch 1649/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss:  
0.0020  
Epoch 1650/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss:  
0.0024



Epoch 1651/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0024

Epoch 1652/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0020

Epoch 1653/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0036

Epoch 1654/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0039 - val\_loss: 0.0042

Epoch 1655/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss: 0.0030

Epoch 1656/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0024

Epoch 1657/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0030

Epoch 1658/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0029 - val\_loss: 0.0031

Epoch 1659/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0030 - val\_loss: 0.0030

Epoch 1660/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0026

Epoch 1661/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0026 - val\_loss: 0.0030

Epoch 1662/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0027

Epoch 1663/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0033

Epoch 1664/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0025

Epoch 1665/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0023

Epoch 1666/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0025

Epoch 1667/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0020

Epoch 1668/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0027

Epoch 1669/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0026

Epoch 1670/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0023

Epoch 1671/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0022

Epoch 1672/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0020 - val\_loss: 0.0027

Epoch 1673/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0019

Epoch 1674/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0020

Epoch 1675/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0018

Epoch 1676/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0021

Epoch 1677/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0021

Epoch 1678/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0027

Epoch 1679/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0020 - val\_loss: 0.0018

Epoch 1680/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0025

Epoch 1681/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0023

Epoch 1682/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0022 - val\_loss: 0.0023

Epoch 1683/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0031

Epoch 1684/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0023

Epoch 1685/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0024 - val\_loss: 0.0022

Epoch 1686/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0019

Epoch 1687/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0024

Epoch 1688/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0019

Epoch 1689/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0020

Epoch 1690/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0020

Epoch 1691/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0017

Epoch 1692/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0017

Epoch 1693/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0019 - val\_loss: 0.0026

Epoch 1694/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0019

Epoch 1695/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0018

Epoch 1696/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0021

Epoch 1697/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0020

Epoch 1698/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0023

Epoch 1699/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0020

Epoch 1700/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0020

Epoch 1701/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0027

Epoch 1702/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0022

Epoch 1703/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0019

Epoch 1704/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0018

Epoch 1705/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0019

Epoch 1706/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0019 - val\_loss: 0.0020

Epoch 1707/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0019 - val\_loss: 0.0017

Epoch 1708/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0017

Epoch 1709/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0018

Epoch 1710/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0024

Epoch 1711/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0020

Epoch 1712/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0018

Epoch 1713/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0017

Epoch 1714/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0017

Epoch 1715/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss:  
0.0019  
Epoch 1716/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss:  
0.0020  
Epoch 1717/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss:  
0.0020  
Epoch 1718/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss:  
0.0017  
Epoch 1719/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss:  
0.0018  
Epoch 1720/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss:  
0.0019  
Epoch 1721/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss:  
0.0017  
Epoch 1722/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss:  
0.0019  
Epoch 1723/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss:  
0.0019  
Epoch 1724/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss:  
0.0019  
Epoch 1725/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss:  
0.0020  
Epoch 1726/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss:  
0.0024  
Epoch 1727/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss:  
0.0017  
Epoch 1728/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss:  
0.0017  
Epoch 1729/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss:  
0.0017  
Epoch 1730/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss:  
0.0018

Epoch 1731/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0020  
Epoch 1732/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0017 - val\_loss: 0.0019  
Epoch 1733/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0018  
Epoch 1734/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0018  
Epoch 1735/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0021  
Epoch 1736/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0018  
Epoch 1737/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0020  
Epoch 1738/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0017  
Epoch 1739/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0019 - val\_loss: 0.0018  
Epoch 1740/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0020 - val\_loss: 0.0025  
Epoch 1741/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0021 - val\_loss: 0.0025  
Epoch 1742/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0017  
Epoch 1743/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0018  
Epoch 1744/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0019 - val\_loss: 0.0020  
Epoch 1745/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0017 - val\_loss: 0.0018  
Epoch 1746/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss: 0.0021

Epoch 1747/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss: 0.0022  
Epoch 1748/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0020  
Epoch 1749/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0019  
Epoch 1750/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss: 0.0019  
Epoch 1751/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0018  
Epoch 1752/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0017 - val\_loss: 0.0017  
Epoch 1753/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0018  
Epoch 1754/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0021  
Epoch 1755/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0017 - val\_loss: 0.0020  
Epoch 1756/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0017 - val\_loss: 0.0018  
Epoch 1757/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0017 - val\_loss: 0.0016  
Epoch 1758/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0019 - val\_loss: 0.0018  
Epoch 1759/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0019 - val\_loss: 0.0018  
Epoch 1760/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0017 - val\_loss: 0.0024  
Epoch 1761/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss: 0.0019  
Epoch 1762/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss: 0.0019

Epoch 1763/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0016 - val\_loss: 0.0018  
Epoch 1764/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0016 - val\_loss: 0.0026  
Epoch 1765/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0019 - val\_loss: 0.0019  
Epoch 1766/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0017 - val\_loss: 0.0018  
Epoch 1767/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0019  
Epoch 1768/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0017  
Epoch 1769/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0016 - val\_loss: 0.0019  
Epoch 1770/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss: 0.0024  
Epoch 1771/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0017 - val\_loss: 0.0018  
Epoch 1772/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0017  
Epoch 1773/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0016  
Epoch 1774/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss: 0.0019  
Epoch 1775/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0020  
Epoch 1776/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0017  
Epoch 1777/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0016  
Epoch 1778/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0017



Epoch 1779/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0017  
Epoch 1780/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0015  
Epoch 1781/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0016 - val\_loss: 0.0022  
Epoch 1782/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0017  
Epoch 1783/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0016  
Epoch 1784/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0023  
Epoch 1785/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0024  
Epoch 1786/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0018  
Epoch 1787/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0019  
Epoch 1788/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0019  
Epoch 1789/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0017  
Epoch 1790/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0015  
Epoch 1791/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0020  
Epoch 1792/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0021  
Epoch 1793/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0016  
Epoch 1794/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0015

Epoch 1795/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0019  
Epoch 1796/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0018  
Epoch 1797/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0022  
Epoch 1798/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0017  
Epoch 1799/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0017  
Epoch 1800/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0019  
Epoch 1801/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0018  
Epoch 1802/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0017  
Epoch 1803/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0017  
Epoch 1804/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss: 0.0018  
Epoch 1805/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0018  
Epoch 1806/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss: 0.0024  
Epoch 1807/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0022  
Epoch 1808/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0023 - val\_loss: 0.0019  
Epoch 1809/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0021 - val\_loss: 0.0020  
Epoch 1810/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0023

Epoch 1811/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0020  
Epoch 1812/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0020 - val\_loss: 0.0020  
Epoch 1813/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0019 - val\_loss: 0.0021  
Epoch 1814/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0021  
Epoch 1815/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0022 - val\_loss: 0.0020  
Epoch 1816/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0016  
Epoch 1817/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0024  
Epoch 1818/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0020 - val\_loss: 0.0017  
Epoch 1819/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss: 0.0019  
Epoch 1820/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0019  
Epoch 1821/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0021  
Epoch 1822/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0016  
Epoch 1823/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0017  
Epoch 1824/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0018  
Epoch 1825/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0019  
Epoch 1826/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0016

Epoch 1827/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0017  
Epoch 1828/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0016 - val\_loss: 0.0016  
Epoch 1829/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0018  
Epoch 1830/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0018  
Epoch 1831/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0015 - val\_loss: 0.0016  
Epoch 1832/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0022  
Epoch 1833/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss: 0.0021  
Epoch 1834/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0017 - val\_loss: 0.0018  
Epoch 1835/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0019 - val\_loss: 0.0019  
Epoch 1836/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0020 - val\_loss: 0.0018  
Epoch 1837/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0016 - val\_loss: 0.0016  
Epoch 1838/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0017 - val\_loss: 0.0020  
Epoch 1839/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss: 0.0018  
Epoch 1840/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss: 0.0019  
Epoch 1841/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0016 - val\_loss: 0.0018  
Epoch 1842/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0017

Epoch 1843/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss:  
0.0019  
Epoch 1844/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0017 - val\_loss:  
0.0018  
Epoch 1845/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0020 - val\_loss:  
0.0037  
Epoch 1846/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0034 - val\_loss:  
0.0036  
Epoch 1847/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0029 - val\_loss:  
0.0028  
Epoch 1848/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss:  
0.0028  
Epoch 1849/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0029 - val\_loss:  
0.0031  
Epoch 1850/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss:  
0.0035  
Epoch 1851/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0031 - val\_loss:  
0.0030  
Epoch 1852/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0032 - val\_loss:  
0.0027  
Epoch 1853/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0023 - val\_loss:  
0.0019  
Epoch 1854/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0019 - val\_loss:  
0.0018  
Epoch 1855/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss:  
0.0018  
Epoch 1856/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss:  
0.0019  
Epoch 1857/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss:  
0.0018  
Epoch 1858/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss:  
0.0033

Epoch 1859/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0055 - val\_loss: 0.0049  
Epoch 1860/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0048 - val\_loss: 0.0043  
Epoch 1861/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0044 - val\_loss: 0.0041  
Epoch 1862/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0042 - val\_loss: 0.0056  
Epoch 1863/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0050 - val\_loss: 0.0046  
Epoch 1864/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0043 - val\_loss: 0.0037  
Epoch 1865/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0040 - val\_loss: 0.0043  
Epoch 1866/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0047 - val\_loss: 0.0039  
Epoch 1867/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0042 - val\_loss: 0.0050  
Epoch 1868/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0058 - val\_loss: 0.0062  
Epoch 1869/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0050 - val\_loss: 0.0044  
Epoch 1870/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0045 - val\_loss: 0.0040  
Epoch 1871/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0044 - val\_loss: 0.0044  
Epoch 1872/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0044 - val\_loss: 0.0048  
Epoch 1873/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0041 - val\_loss: 0.0034  
Epoch 1874/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0039 - val\_loss: 0.0035

Epoch 1875/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0043  
Epoch 1876/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0042 - val\_loss: 0.0041  
Epoch 1877/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0044 - val\_loss: 0.0044  
Epoch 1878/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0042 - val\_loss: 0.0043  
Epoch 1879/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0040 - val\_loss: 0.0040  
Epoch 1880/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0035  
Epoch 1881/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0035 - val\_loss: 0.0037  
Epoch 1882/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0040 - val\_loss: 0.0036  
Epoch 1883/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0036 - val\_loss: 0.0039  
Epoch 1884/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0038  
Epoch 1885/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0043 - val\_loss: 0.0038  
Epoch 1886/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0035 - val\_loss: 0.0050  
Epoch 1887/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0040 - val\_loss: 0.0037  
Epoch 1888/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0040 - val\_loss: 0.0047  
Epoch 1889/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0039 - val\_loss: 0.0039  
Epoch 1890/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0041 - val\_loss: 0.0040

Epoch 1891/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0037 - val\_loss: 0.0036  
Epoch 1892/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0036  
Epoch 1893/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0038 - val\_loss: 0.0039  
Epoch 1894/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0032  
Epoch 1895/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0039 - val\_loss: 0.0043  
Epoch 1896/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0039 - val\_loss: 0.0040  
Epoch 1897/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0036 - val\_loss: 0.0044  
Epoch 1898/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0035 - val\_loss: 0.0036  
Epoch 1899/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0032 - val\_loss: 0.0037  
Epoch 1900/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0034 - val\_loss: 0.0046  
Epoch 1901/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0035 - val\_loss: 0.0034  
Epoch 1902/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0035 - val\_loss: 0.0035  
Epoch 1903/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss: 0.0034  
Epoch 1904/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss: 0.0030  
Epoch 1905/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0034 - val\_loss: 0.0035  
Epoch 1906/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0032



Epoch 1907/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0030 - val\_loss: 0.0033  
Epoch 1908/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0029 - val\_loss: 0.0032  
Epoch 1909/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss: 0.0034  
Epoch 1910/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0032 - val\_loss: 0.0031  
Epoch 1911/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0030  
Epoch 1912/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0029 - val\_loss: 0.0031  
Epoch 1913/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0030 - val\_loss: 0.0053  
Epoch 1914/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0048 - val\_loss: 0.0048  
Epoch 1915/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0037 - val\_loss: 0.0037  
Epoch 1916/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0035 - val\_loss: 0.0040  
Epoch 1917/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0035 - val\_loss: 0.0038  
Epoch 1918/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0033 - val\_loss: 0.0036  
Epoch 1919/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0035 - val\_loss: 0.0045  
Epoch 1920/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0033 - val\_loss: 0.0032  
Epoch 1921/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0031 - val\_loss: 0.0038  
Epoch 1922/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0034 - val\_loss: 0.0031

Epoch 1923/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0039 - val\_loss: 0.0037  
Epoch 1924/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0034 - val\_loss: 0.0035  
Epoch 1925/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0037 - val\_loss: 0.0035  
Epoch 1926/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0041 - val\_loss: 0.0040  
Epoch 1927/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0037 - val\_loss: 0.0037  
Epoch 1928/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0041 - val\_loss: 0.0040  
Epoch 1929/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0039 - val\_loss: 0.0036  
Epoch 1930/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0036 - val\_loss: 0.0038  
Epoch 1931/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0039  
Epoch 1932/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0034 - val\_loss: 0.0032  
Epoch 1933/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0057 - val\_loss: 0.0059  
Epoch 1934/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0051 - val\_loss: 0.0041  
Epoch 1935/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0042 - val\_loss: 0.0043  
Epoch 1936/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0044 - val\_loss: 0.0046  
Epoch 1937/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0044 - val\_loss: 0.0045  
Epoch 1938/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0042 - val\_loss: 0.0044

Epoch 1939/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0044 - val\_loss:  
0.0042  
Epoch 1940/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0044 - val\_loss:  
0.0043  
Epoch 1941/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0043 - val\_loss:  
0.0040  
Epoch 1942/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0040 - val\_loss:  
0.0039  
Epoch 1943/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0044 - val\_loss:  
0.0048  
Epoch 1944/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0045 - val\_loss:  
0.0043  
Epoch 1945/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0044 - val\_loss:  
0.0045  
Epoch 1946/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0040 - val\_loss:  
0.0039  
Epoch 1947/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0042 - val\_loss:  
0.0044  
Epoch 1948/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0042 - val\_loss:  
0.0043  
Epoch 1949/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0042 - val\_loss:  
0.0038  
Epoch 1950/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0041 - val\_loss:  
0.0040  
Epoch 1951/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0039 - val\_loss:  
0.0038  
Epoch 1952/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0041 - val\_loss:  
0.0040  
Epoch 1953/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0044 - val\_loss:  
0.0046  
Epoch 1954/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0042 - val\_loss:  
0.0048

Epoch 1955/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0044 - val\_loss: 0.0043

Epoch 1956/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0040 - val\_loss: 0.0038

Epoch 1957/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0037 - val\_loss: 0.0039

Epoch 1958/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0039 - val\_loss: 0.0038

Epoch 1959/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0035 - val\_loss: 0.0035

Epoch 1960/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0035 - val\_loss: 0.0037

Epoch 1961/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0043 - val\_loss: 0.0041

Epoch 1962/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0038 - val\_loss: 0.0039

Epoch 1963/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0038 - val\_loss: 0.0039

Epoch 1964/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0037 - val\_loss: 0.0036

Epoch 1965/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0040 - val\_loss: 0.0039

Epoch 1966/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0040 - val\_loss: 0.0043

Epoch 1967/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0043 - val\_loss: 0.0052

Epoch 1968/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0043 - val\_loss: 0.0043

Epoch 1969/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0037 - val\_loss: 0.0038

Epoch 1970/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0038 - val\_loss: 0.0039

Epoch 1971/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0041 - val\_loss: 0.0043  
Epoch 1972/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0037 - val\_loss: 0.0035  
Epoch 1973/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0034  
Epoch 1974/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0034 - val\_loss: 0.0034  
Epoch 1975/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0038 - val\_loss: 0.0050  
Epoch 1976/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0040 - val\_loss: 0.0033  
Epoch 1977/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0035 - val\_loss: 0.0034  
Epoch 1978/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0035  
Epoch 1979/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0035 - val\_loss: 0.0034  
Epoch 1980/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0032 - val\_loss: 0.0030  
Epoch 1981/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0035 - val\_loss: 0.0040  
Epoch 1982/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0040 - val\_loss: 0.0038  
Epoch 1983/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0040 - val\_loss: 0.0036  
Epoch 1984/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0038  
Epoch 1985/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0038 - val\_loss: 0.0037  
Epoch 1986/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0036

Epoch 1987/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0033 - val\_loss: 0.0038  
Epoch 1988/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0039 - val\_loss: 0.0041  
Epoch 1989/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0035 - val\_loss: 0.0033  
Epoch 1990/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0033 - val\_loss: 0.0033  
Epoch 1991/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0034 - val\_loss: 0.0036  
Epoch 1992/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0035 - val\_loss: 0.0042  
Epoch 1993/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0043 - val\_loss: 0.0049  
Epoch 1994/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0038 - val\_loss: 0.0035  
Epoch 1995/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0036 - val\_loss: 0.0035  
Epoch 1996/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0035 - val\_loss: 0.0036  
Epoch 1997/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0041 - val\_loss: 0.0036  
Epoch 1998/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0040 - val\_loss: 0.0035  
Epoch 1999/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0037 - val\_loss: 0.0038  
Epoch 2000/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0039 - val\_loss: 0.0040  
Epoch 2001/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0040 - val\_loss: 0.0036  
Epoch 2002/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0037

Epoch 2003/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0036  
Epoch 2004/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0035 - val\_loss: 0.0038  
Epoch 2005/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0037  
Epoch 2006/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0037 - val\_loss: 0.0044  
Epoch 2007/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0042 - val\_loss: 0.0044  
Epoch 2008/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0045 - val\_loss: 0.0037  
Epoch 2009/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0040 - val\_loss: 0.0036  
Epoch 2010/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0045 - val\_loss: 0.0050  
Epoch 2011/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0042 - val\_loss: 0.0042  
Epoch 2012/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0040 - val\_loss: 0.0034  
Epoch 2013/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0035 - val\_loss: 0.0038  
Epoch 2014/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0035  
Epoch 2015/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0031  
Epoch 2016/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0032 - val\_loss: 0.0034  
Epoch 2017/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0032 - val\_loss: 0.0035  
Epoch 2018/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0032 - val\_loss: 0.0032

Epoch 2019/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0032 - val\_loss: 0.0031

Epoch 2020/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss: 0.0034

Epoch 2021/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0037 - val\_loss: 0.0032

Epoch 2022/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss: 0.0033

Epoch 2023/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0028

Epoch 2024/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0030 - val\_loss: 0.0036

Epoch 2025/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0036 - val\_loss: 0.0051

Epoch 2026/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0040 - val\_loss: 0.0037

Epoch 2027/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0034 - val\_loss: 0.0034

Epoch 2028/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0033 - val\_loss: 0.0036

Epoch 2029/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0033

Epoch 2030/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0037 - val\_loss: 0.0037

Epoch 2031/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0034 - val\_loss: 0.0043

Epoch 2032/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0051 - val\_loss: 0.0038

Epoch 2033/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0040 - val\_loss: 0.0035

Epoch 2034/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0040 - val\_loss: 0.0046



Epoch 2035/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0045 - val\_loss: 0.0043  
Epoch 2036/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0049 - val\_loss: 0.0057  
Epoch 2037/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0056 - val\_loss: 0.0051  
Epoch 2038/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0050 - val\_loss: 0.0053  
Epoch 2039/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0049 - val\_loss: 0.0049  
Epoch 2040/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0056 - val\_loss: 0.0067  
Epoch 2041/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0059 - val\_loss: 0.0051  
Epoch 2042/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0045 - val\_loss: 0.0041  
Epoch 2043/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0044 - val\_loss: 0.0047  
Epoch 2044/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0046 - val\_loss: 0.0045  
Epoch 2045/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0052 - val\_loss: 0.0052  
Epoch 2046/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0051 - val\_loss: 0.0048  
Epoch 2047/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0045 - val\_loss: 0.0040  
Epoch 2048/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0041 - val\_loss: 0.0042  
Epoch 2049/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0045 - val\_loss: 0.0042  
Epoch 2050/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0044 - val\_loss: 0.0042

Epoch 2051/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0041 - val\_loss: 0.0038

Epoch 2052/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0041 - val\_loss: 0.0044

Epoch 2053/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0050 - val\_loss: 0.0045

Epoch 2054/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0039 - val\_loss: 0.0039

Epoch 2055/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0040 - val\_loss: 0.0039

Epoch 2056/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0038 - val\_loss: 0.0049

Epoch 2057/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0063 - val\_loss: 0.0057

Epoch 2058/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0060 - val\_loss: 0.0060

Epoch 2059/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0058 - val\_loss: 0.0055

Epoch 2060/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0050 - val\_loss: 0.0049

Epoch 2061/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0047 - val\_loss: 0.0043

Epoch 2062/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0040 - val\_loss: 0.0043

Epoch 2063/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0049 - val\_loss: 0.0048

Epoch 2064/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0043 - val\_loss: 0.0038

Epoch 2065/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0041 - val\_loss: 0.0039

Epoch 2066/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0037 - val\_loss: 0.0035

Epoch 2067/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0037  
Epoch 2068/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0035 - val\_loss: 0.0034  
Epoch 2069/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0038 - val\_loss: 0.0035  
Epoch 2070/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0041  
Epoch 2071/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0036  
Epoch 2072/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0034 - val\_loss: 0.0032  
Epoch 2073/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0033 - val\_loss: 0.0029  
Epoch 2074/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss: 0.0032  
Epoch 2075/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0032 - val\_loss: 0.0031  
Epoch 2076/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0034 - val\_loss: 0.0032  
Epoch 2077/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0032 - val\_loss: 0.0038  
Epoch 2078/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0033 - val\_loss: 0.0029  
Epoch 2079/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0033 - val\_loss: 0.0034  
Epoch 2080/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0032 - val\_loss: 0.0032  
Epoch 2081/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss: 0.0028  
Epoch 2082/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0033 - val\_loss: 0.0031

Epoch 2083/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0032 - val\_loss: 0.0032

Epoch 2084/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0032 - val\_loss: 0.0041

Epoch 2085/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0035 - val\_loss: 0.0036

Epoch 2086/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0041 - val\_loss: 0.0046

Epoch 2087/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0040 - val\_loss: 0.0034

Epoch 2088/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0034 - val\_loss: 0.0036

Epoch 2089/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0034 - val\_loss: 0.0031

Epoch 2090/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss: 0.0027

Epoch 2091/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0029 - val\_loss: 0.0029

Epoch 2092/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0032 - val\_loss: 0.0034

Epoch 2093/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0033 - val\_loss: 0.0031

Epoch 2094/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0033 - val\_loss: 0.0042

Epoch 2095/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0040 - val\_loss: 0.0034

Epoch 2096/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0034 - val\_loss: 0.0030

Epoch 2097/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0031 - val\_loss: 0.0027

Epoch 2098/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0030 - val\_loss: 0.0027

Epoch 2099/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0028 - val\_loss: 0.0028  
Epoch 2100/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0029 - val\_loss: 0.0030  
Epoch 2101/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0028 - val\_loss: 0.0027  
Epoch 2102/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0029 - val\_loss: 0.0030  
Epoch 2103/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0029 - val\_loss: 0.0027  
Epoch 2104/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0028 - val\_loss: 0.0029  
Epoch 2105/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0028 - val\_loss: 0.0027  
Epoch 2106/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0029 - val\_loss: 0.0034  
Epoch 2107/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0030 - val\_loss: 0.0029  
Epoch 2108/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0029 - val\_loss: 0.0030  
Epoch 2109/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0029 - val\_loss: 0.0027  
Epoch 2110/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0029 - val\_loss: 0.0037  
Epoch 2111/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0028 - val\_loss: 0.0027  
Epoch 2112/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0032 - val\_loss: 0.0036  
Epoch 2113/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0033 - val\_loss: 0.0037  
Epoch 2114/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0033 - val\_loss: 0.0045

Epoch 2115/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0036 - val\_loss: 0.0036  
Epoch 2116/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0037 - val\_loss: 0.0037  
Epoch 2117/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0033 - val\_loss: 0.0032  
Epoch 2118/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0035 - val\_loss: 0.0033  
Epoch 2119/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0036 - val\_loss: 0.0041  
Epoch 2120/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0036 - val\_loss: 0.0033  
Epoch 2121/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0032 - val\_loss: 0.0034  
Epoch 2122/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0034 - val\_loss: 0.0034  
Epoch 2123/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0032 - val\_loss: 0.0029  
Epoch 2124/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0032 - val\_loss: 0.0033  
Epoch 2125/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss: 0.0030  
Epoch 2126/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0031 - val\_loss: 0.0029  
Epoch 2127/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0033 - val\_loss: 0.0030  
Epoch 2128/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0030 - val\_loss: 0.0032  
Epoch 2129/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0029 - val\_loss: 0.0031  
Epoch 2130/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0030

Epoch 2131/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0029 - val\_loss: 0.0030  
Epoch 2132/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0029  
Epoch 2133/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0029 - val\_loss: 0.0030  
Epoch 2134/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0033  
Epoch 2135/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0029  
Epoch 2136/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0029  
Epoch 2137/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0029  
Epoch 2138/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0027  
Epoch 2139/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0030 - val\_loss: 0.0032  
Epoch 2140/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0035 - val\_loss: 0.0033  
Epoch 2141/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0030 - val\_loss: 0.0030  
Epoch 2142/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0032 - val\_loss: 0.0030  
Epoch 2143/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0029 - val\_loss: 0.0029  
Epoch 2144/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0032 - val\_loss: 0.0033  
Epoch 2145/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0033 - val\_loss: 0.0035  
Epoch 2146/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0030 - val\_loss: 0.0028

Epoch 2147/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0029 - val\_loss: 0.0026  
Epoch 2148/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0034 - val\_loss: 0.0039  
Epoch 2149/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0034 - val\_loss: 0.0033  
Epoch 2150/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0038 - val\_loss: 0.0036  
Epoch 2151/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0034 - val\_loss: 0.0034  
Epoch 2152/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0035 - val\_loss: 0.0031  
Epoch 2153/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0030 - val\_loss: 0.0033  
Epoch 2154/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0026  
Epoch 2155/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0028  
Epoch 2156/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss: 0.0025  
Epoch 2157/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0028  
Epoch 2158/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0030 - val\_loss: 0.0025  
Epoch 2159/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0031  
Epoch 2160/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0034  
Epoch 2161/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0029  
Epoch 2162/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0027



Epoch 2163/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0024  
Epoch 2164/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0028  
Epoch 2165/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0030  
Epoch 2166/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0027  
Epoch 2167/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0023  
Epoch 2168/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss: 0.0031  
Epoch 2169/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss: 0.0027  
Epoch 2170/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0035  
Epoch 2171/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0025  
Epoch 2172/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0027  
Epoch 2173/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0026  
Epoch 2174/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0024  
Epoch 2175/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0027  
Epoch 2176/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0024  
Epoch 2177/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0026  
Epoch 2178/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0029 - val\_loss: 0.0028

Epoch 2179/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0027  
Epoch 2180/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0029  
Epoch 2181/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss: 0.0039  
Epoch 2182/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0028  
Epoch 2183/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0028  
Epoch 2184/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0029 - val\_loss: 0.0028  
Epoch 2185/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0029  
Epoch 2186/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0028  
Epoch 2187/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0032 - val\_loss: 0.0029  
Epoch 2188/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0035 - val\_loss: 0.0033  
Epoch 2189/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0033 - val\_loss: 0.0033  
Epoch 2190/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss: 0.0028  
Epoch 2191/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0029 - val\_loss: 0.0032  
Epoch 2192/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0032 - val\_loss: 0.0026  
Epoch 2193/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0024  
Epoch 2194/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0026

Epoch 2195/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0025  
Epoch 2196/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0027  
Epoch 2197/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0029 - val\_loss: 0.0031  
Epoch 2198/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss: 0.0026  
Epoch 2199/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0029 - val\_loss: 0.0032  
Epoch 2200/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0042 - val\_loss: 0.0042  
Epoch 2201/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0037 - val\_loss: 0.0029  
Epoch 2202/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss: 0.0032  
Epoch 2203/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0035  
Epoch 2204/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0032 - val\_loss: 0.0029  
Epoch 2205/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0027  
Epoch 2206/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0029 - val\_loss: 0.0032  
Epoch 2207/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0029 - val\_loss: 0.0029  
Epoch 2208/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0030 - val\_loss: 0.0027  
Epoch 2209/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0032  
Epoch 2210/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0024

Epoch 2211/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0031  
Epoch 2212/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0029 - val\_loss: 0.0039  
Epoch 2213/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0033 - val\_loss: 0.0027  
Epoch 2214/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0028  
Epoch 2215/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0029 - val\_loss: 0.0027  
Epoch 2216/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0025  
Epoch 2217/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0029 - val\_loss: 0.0026  
Epoch 2218/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0028 - val\_loss: 0.0027  
Epoch 2219/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0028  
Epoch 2220/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0027  
Epoch 2221/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0027  
Epoch 2222/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0033 - val\_loss: 0.0030  
Epoch 2223/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0029 - val\_loss: 0.0031  
Epoch 2224/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0029  
Epoch 2225/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0028  
Epoch 2226/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0028

Epoch 2227/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0030

Epoch 2228/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0028

Epoch 2229/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0027

Epoch 2230/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0029

Epoch 2231/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0025 - val\_loss: 0.0025

Epoch 2232/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0026

Epoch 2233/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0027

Epoch 2234/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0027

Epoch 2235/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0029 - val\_loss: 0.0033

Epoch 2236/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0029 - val\_loss: 0.0026

Epoch 2237/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0028 - val\_loss: 0.0026

Epoch 2238/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0025 - val\_loss: 0.0026

Epoch 2239/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0027

Epoch 2240/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0025

Epoch 2241/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0026

Epoch 2242/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0024 - val\_loss: 0.0024

Epoch 2243/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0023  
Epoch 2244/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0027 - val\_loss: 0.0030  
Epoch 2245/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0028 - val\_loss: 0.0042  
Epoch 2246/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0038 - val\_loss: 0.0042  
Epoch 2247/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0031  
Epoch 2248/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0033 - val\_loss: 0.0034  
Epoch 2249/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0034 - val\_loss: 0.0031  
Epoch 2250/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss: 0.0034  
Epoch 2251/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0034 - val\_loss: 0.0037  
Epoch 2252/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0033 - val\_loss: 0.0031  
Epoch 2253/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0033 - val\_loss: 0.0035  
Epoch 2254/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0031 - val\_loss: 0.0035  
Epoch 2255/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0032 - val\_loss: 0.0033  
Epoch 2256/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0030 - val\_loss: 0.0033  
Epoch 2257/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0033 - val\_loss: 0.0034  
Epoch 2258/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0032 - val\_loss: 0.0033

Epoch 2259/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0030 - val\_loss: 0.0031  
Epoch 2260/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0028 - val\_loss: 0.0031  
Epoch 2261/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0028 - val\_loss: 0.0029  
Epoch 2262/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0030  
Epoch 2263/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0033  
Epoch 2264/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0031 - val\_loss: 0.0032  
Epoch 2265/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0032 - val\_loss: 0.0026  
Epoch 2266/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0030 - val\_loss: 0.0028  
Epoch 2267/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0030 - val\_loss: 0.0028  
Epoch 2268/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0029 - val\_loss: 0.0026  
Epoch 2269/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0030 - val\_loss: 0.0028  
Epoch 2270/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0031 - val\_loss: 0.0030  
Epoch 2271/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0031 - val\_loss: 0.0031  
Epoch 2272/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0030 - val\_loss: 0.0032  
Epoch 2273/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0034 - val\_loss: 0.0033  
Epoch 2274/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0031 - val\_loss: 0.0030

Epoch 2275/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0029 - val\_loss: 0.0031  
Epoch 2276/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0033 - val\_loss: 0.0033  
Epoch 2277/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0028 - val\_loss: 0.0029  
Epoch 2278/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0031 - val\_loss: 0.0034  
Epoch 2279/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0032 - val\_loss: 0.0036  
Epoch 2280/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss: 0.0029  
Epoch 2281/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0030 - val\_loss: 0.0028  
Epoch 2282/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss: 0.0032  
Epoch 2283/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0033 - val\_loss: 0.0044  
Epoch 2284/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0040 - val\_loss: 0.0048  
Epoch 2285/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0042 - val\_loss: 0.0037  
Epoch 2286/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0037 - val\_loss: 0.0037  
Epoch 2287/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0035 - val\_loss: 0.0034  
Epoch 2288/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0031 - val\_loss: 0.0034  
Epoch 2289/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0031 - val\_loss: 0.0031  
Epoch 2290/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0032 - val\_loss: 0.0031



Epoch 2291/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0029 - val\_loss: 0.0030  
Epoch 2292/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss: 0.0036  
Epoch 2293/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0033 - val\_loss: 0.0031  
Epoch 2294/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0032 - val\_loss: 0.0032  
Epoch 2295/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0030 - val\_loss: 0.0028  
Epoch 2296/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0034 - val\_loss: 0.0042  
Epoch 2297/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0035 - val\_loss: 0.0031  
Epoch 2298/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0040  
Epoch 2299/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0034 - val\_loss: 0.0033  
Epoch 2300/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss: 0.0031  
Epoch 2301/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0030 - val\_loss: 0.0030  
Epoch 2302/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0032 - val\_loss: 0.0034  
Epoch 2303/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0030 - val\_loss: 0.0030  
Epoch 2304/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0032 - val\_loss: 0.0037  
Epoch 2305/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0032 - val\_loss: 0.0030  
Epoch 2306/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0032 - val\_loss: 0.0032

Epoch 2307/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0031 - val\_loss: 0.0029  
Epoch 2308/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0030 - val\_loss: 0.0036  
Epoch 2309/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0029 - val\_loss: 0.0031  
Epoch 2310/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss: 0.0028  
Epoch 2311/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0030 - val\_loss: 0.0032  
Epoch 2312/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0030 - val\_loss: 0.0033  
Epoch 2313/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss: 0.0037  
Epoch 2314/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0034 - val\_loss: 0.0034  
Epoch 2315/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss: 0.0028  
Epoch 2316/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0030 - val\_loss: 0.0032  
Epoch 2317/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0031 - val\_loss: 0.0029  
Epoch 2318/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0029 - val\_loss: 0.0033  
Epoch 2319/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss: 0.0030  
Epoch 2320/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0033 - val\_loss: 0.0033  
Epoch 2321/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0032 - val\_loss: 0.0029  
Epoch 2322/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0032 - val\_loss: 0.0033

Epoch 2323/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0031 - val\_loss: 0.0031  
Epoch 2324/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0029 - val\_loss: 0.0029  
Epoch 2325/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0029 - val\_loss: 0.0029  
Epoch 2326/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0028  
Epoch 2327/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0029 - val\_loss: 0.0030  
Epoch 2328/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0027 - val\_loss: 0.0027  
Epoch 2329/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0030 - val\_loss: 0.0031  
Epoch 2330/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0031 - val\_loss: 0.0030  
Epoch 2331/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0030 - val\_loss: 0.0026  
Epoch 2332/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0030 - val\_loss: 0.0034  
Epoch 2333/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0030 - val\_loss: 0.0032  
Epoch 2334/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0028 - val\_loss: 0.0028  
Epoch 2335/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0027  
Epoch 2336/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0029 - val\_loss: 0.0030  
Epoch 2337/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0029 - val\_loss: 0.0035  
Epoch 2338/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0033 - val\_loss: 0.0029

Epoch 2339/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0028 - val\_loss: 0.0027  
Epoch 2340/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0028 - val\_loss: 0.0033  
Epoch 2341/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0028  
Epoch 2342/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0030 - val\_loss: 0.0028  
Epoch 2343/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0026  
Epoch 2344/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0025 - val\_loss: 0.0025  
Epoch 2345/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0033 - val\_loss: 0.0026  
Epoch 2346/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0032  
Epoch 2347/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0027  
Epoch 2348/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0028  
Epoch 2349/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0029 - val\_loss: 0.0029  
Epoch 2350/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0031  
Epoch 2351/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0029 - val\_loss: 0.0029  
Epoch 2352/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0028  
Epoch 2353/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0028  
Epoch 2354/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0024

Epoch 2355/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0024  
Epoch 2356/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0027 - val\_loss: 0.0028  
Epoch 2357/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0029 - val\_loss: 0.0029  
Epoch 2358/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0024  
Epoch 2359/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0029  
Epoch 2360/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0023  
Epoch 2361/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0025 - val\_loss: 0.0025  
Epoch 2362/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0021  
Epoch 2363/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0025  
Epoch 2364/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0022  
Epoch 2365/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0025  
Epoch 2366/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0024  
Epoch 2367/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0026 - val\_loss: 0.0026  
Epoch 2368/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0024 - val\_loss: 0.0021  
Epoch 2369/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0026  
Epoch 2370/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0026

Epoch 2371/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0026  
Epoch 2372/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0022  
Epoch 2373/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0028  
Epoch 2374/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0025 - val\_loss: 0.0027  
Epoch 2375/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0030  
Epoch 2376/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0029  
Epoch 2377/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0029  
Epoch 2378/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0027 - val\_loss: 0.0028  
Epoch 2379/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0029 - val\_loss: 0.0033  
Epoch 2380/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0025  
Epoch 2381/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0022  
Epoch 2382/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0022 - val\_loss: 0.0025  
Epoch 2383/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0023  
Epoch 2384/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0030  
Epoch 2385/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0026 - val\_loss: 0.0024  
Epoch 2386/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0024 - val\_loss: 0.0022

Epoch 2387/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0022  
Epoch 2388/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0027 - val\_loss: 0.0028  
Epoch 2389/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0027  
Epoch 2390/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0023  
Epoch 2391/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0029  
Epoch 2392/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0029 - val\_loss: 0.0028  
Epoch 2393/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0026 - val\_loss: 0.0023  
Epoch 2394/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0022 - val\_loss: 0.0025  
Epoch 2395/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0024  
Epoch 2396/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0023  
Epoch 2397/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0028  
Epoch 2398/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0024  
Epoch 2399/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0025  
Epoch 2400/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0024  
Epoch 2401/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0028  
Epoch 2402/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0025

Epoch 2403/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0026  
Epoch 2404/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0029  
Epoch 2405/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0032 - val\_loss: 0.0025  
Epoch 2406/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0043 - val\_loss: 0.0047  
Epoch 2407/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0034 - val\_loss: 0.0026  
Epoch 2408/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0028 - val\_loss: 0.0030  
Epoch 2409/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0026 - val\_loss: 0.0027  
Epoch 2410/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0025  
Epoch 2411/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0028  
Epoch 2412/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0029  
Epoch 2413/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0025 - val\_loss: 0.0027  
Epoch 2414/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0023 - val\_loss: 0.0025  
Epoch 2415/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0026  
Epoch 2416/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0029  
Epoch 2417/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0021  
Epoch 2418/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0026



Epoch 2419/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0023  
Epoch 2420/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0028  
Epoch 2421/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0034 - val\_loss: 0.0033  
Epoch 2422/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0029 - val\_loss: 0.0034  
Epoch 2423/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0032 - val\_loss: 0.0032  
Epoch 2424/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0033 - val\_loss: 0.0028  
Epoch 2425/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0029 - val\_loss: 0.0027  
Epoch 2426/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0032 - val\_loss: 0.0029  
Epoch 2427/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss: 0.0031  
Epoch 2428/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0037 - val\_loss: 0.0032  
Epoch 2429/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0038 - val\_loss: 0.0042  
Epoch 2430/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0034 - val\_loss: 0.0031  
Epoch 2431/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0035 - val\_loss: 0.0066  
Epoch 2432/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0039 - val\_loss: 0.0033  
Epoch 2433/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0035 - val\_loss: 0.0036  
Epoch 2434/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0038 - val\_loss: 0.0054

Epoch 2435/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0045 - val\_loss: 0.0039  
Epoch 2436/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0040 - val\_loss: 0.0037  
Epoch 2437/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0034 - val\_loss: 0.0034  
Epoch 2438/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0032 - val\_loss: 0.0031  
Epoch 2439/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0032 - val\_loss: 0.0034  
Epoch 2440/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0033 - val\_loss: 0.0031  
Epoch 2441/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0033 - val\_loss: 0.0037  
Epoch 2442/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0034 - val\_loss: 0.0033  
Epoch 2443/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0033  
Epoch 2444/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0037 - val\_loss: 0.0038  
Epoch 2445/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0040 - val\_loss: 0.0042  
Epoch 2446/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0032 - val\_loss: 0.0029  
Epoch 2447/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss: 0.0029  
Epoch 2448/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0032 - val\_loss: 0.0035  
Epoch 2449/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0035 - val\_loss: 0.0028  
Epoch 2450/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0030 - val\_loss: 0.0026

Epoch 2451/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0030 - val\_loss: 0.0028  
Epoch 2452/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0030 - val\_loss: 0.0027  
Epoch 2453/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0027 - val\_loss: 0.0029  
Epoch 2454/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0028 - val\_loss: 0.0027  
Epoch 2455/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0026 - val\_loss: 0.0027  
Epoch 2456/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0028 - val\_loss: 0.0025  
Epoch 2457/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0027 - val\_loss: 0.0028  
Epoch 2458/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0028  
Epoch 2459/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0030 - val\_loss: 0.0031  
Epoch 2460/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0025  
Epoch 2461/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0025  
Epoch 2462/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0022  
Epoch 2463/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0029 - val\_loss: 0.0029  
Epoch 2464/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0033 - val\_loss: 0.0035  
Epoch 2465/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0029 - val\_loss: 0.0027  
Epoch 2466/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0025

Epoch 2467/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0033  
Epoch 2468/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0029  
Epoch 2469/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0030 - val\_loss: 0.0030  
Epoch 2470/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0026 - val\_loss: 0.0030  
Epoch 2471/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0026 - val\_loss: 0.0028  
Epoch 2472/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0029 - val\_loss: 0.0030  
Epoch 2473/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0027 - val\_loss: 0.0029  
Epoch 2474/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0026  
Epoch 2475/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0037  
Epoch 2476/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0029 - val\_loss: 0.0027  
Epoch 2477/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0023  
Epoch 2478/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0026  
Epoch 2479/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0036  
Epoch 2480/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss: 0.0025  
Epoch 2481/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0026  
Epoch 2482/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0024

Epoch 2483/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss: 0.0028  
Epoch 2484/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0026  
Epoch 2485/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0033  
Epoch 2486/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0030 - val\_loss: 0.0029  
Epoch 2487/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0029 - val\_loss: 0.0028  
Epoch 2488/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss: 0.0033  
Epoch 2489/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0029 - val\_loss: 0.0024  
Epoch 2490/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0028  
Epoch 2491/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0025  
Epoch 2492/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0054  
Epoch 2493/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0046 - val\_loss: 0.0046  
Epoch 2494/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0042 - val\_loss: 0.0043  
Epoch 2495/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0045 - val\_loss: 0.0044  
Epoch 2496/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0042 - val\_loss: 0.0056  
Epoch 2497/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0051 - val\_loss: 0.0046  
Epoch 2498/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0044 - val\_loss: 0.0047

Epoch 2499/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0041 - val\_loss: 0.0042  
Epoch 2500/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0041 - val\_loss: 0.0043  
Epoch 2501/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0048 - val\_loss: 0.0054  
Epoch 2502/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0047 - val\_loss: 0.0041  
Epoch 2503/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0041 - val\_loss: 0.0044  
Epoch 2504/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0040 - val\_loss: 0.0038  
Epoch 2505/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0038 - val\_loss: 0.0040  
Epoch 2506/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0038 - val\_loss: 0.0039  
Epoch 2507/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0040 - val\_loss: 0.0042  
Epoch 2508/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0036  
Epoch 2509/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0037 - val\_loss: 0.0036  
Epoch 2510/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0039 - val\_loss: 0.0041  
Epoch 2511/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0037 - val\_loss: 0.0032  
Epoch 2512/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0035 - val\_loss: 0.0038  
Epoch 2513/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0042 - val\_loss: 0.0036  
Epoch 2514/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0038 - val\_loss: 0.0041

Epoch 2515/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0038  
Epoch 2516/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0045  
Epoch 2517/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0037 - val\_loss: 0.0032  
Epoch 2518/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0034  
Epoch 2519/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0034 - val\_loss: 0.0035  
Epoch 2520/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0052  
Epoch 2521/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0035  
Epoch 2522/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0037 - val\_loss: 0.0030  
Epoch 2523/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0038 - val\_loss: 0.0033  
Epoch 2524/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0034 - val\_loss: 0.0035  
Epoch 2525/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0032 - val\_loss: 0.0032  
Epoch 2526/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0033 - val\_loss: 0.0043  
Epoch 2527/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0038 - val\_loss: 0.0037  
Epoch 2528/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0037 - val\_loss: 0.0042  
Epoch 2529/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0036  
Epoch 2530/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0039

Epoch 2531/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0037 - val\_loss: 0.0036  
Epoch 2532/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0034 - val\_loss: 0.0035  
Epoch 2533/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0033 - val\_loss: 0.0029  
Epoch 2534/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0032 - val\_loss: 0.0035  
Epoch 2535/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss: 0.0041  
Epoch 2536/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0037  
Epoch 2537/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0037 - val\_loss: 0.0040  
Epoch 2538/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0041 - val\_loss: 0.0048  
Epoch 2539/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0045 - val\_loss: 0.0042  
Epoch 2540/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0041 - val\_loss: 0.0047  
Epoch 2541/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0039  
Epoch 2542/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0033 - val\_loss: 0.0037  
Epoch 2543/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0033 - val\_loss: 0.0034  
Epoch 2544/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0034 - val\_loss: 0.0032  
Epoch 2545/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0034  
Epoch 2546/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0049



Epoch 2547/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0047 - val\_loss: 0.0033

Epoch 2548/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0040 - val\_loss: 0.0036

Epoch 2549/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0041 - val\_loss: 0.0039

Epoch 2550/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0034 - val\_loss: 0.0031

Epoch 2551/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0035 - val\_loss: 0.0037

Epoch 2552/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0040 - val\_loss: 0.0036

Epoch 2553/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0038 - val\_loss: 0.0040

Epoch 2554/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0039 - val\_loss: 0.0039

Epoch 2555/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0040 - val\_loss: 0.0031

Epoch 2556/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0035 - val\_loss: 0.0031

Epoch 2557/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0032 - val\_loss: 0.0029

Epoch 2558/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0032 - val\_loss: 0.0031

Epoch 2559/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0033 - val\_loss: 0.0031

Epoch 2560/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0030 - val\_loss: 0.0027

Epoch 2561/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0030 - val\_loss: 0.0029

Epoch 2562/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0030 - val\_loss: 0.0035

Epoch 2563/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss: 0.0027  
Epoch 2564/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0036  
Epoch 2565/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0032 - val\_loss: 0.0027  
Epoch 2566/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0033 - val\_loss: 0.0035  
Epoch 2567/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0033 - val\_loss: 0.0030  
Epoch 2568/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0028  
Epoch 2569/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss: 0.0036  
Epoch 2570/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss: 0.0031  
Epoch 2571/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss: 0.0034  
Epoch 2572/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0084 - val\_loss: 0.0071  
Epoch 2573/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0059 - val\_loss: 0.0049  
Epoch 2574/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0047 - val\_loss: 0.0046  
Epoch 2575/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0046 - val\_loss: 0.0049  
Epoch 2576/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0048 - val\_loss: 0.0053  
Epoch 2577/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0048 - val\_loss: 0.0041  
Epoch 2578/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0043 - val\_loss: 0.0042

Epoch 2579/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0042 - val\_loss: 0.0043  
Epoch 2580/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0044 - val\_loss: 0.0043  
Epoch 2581/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0043 - val\_loss: 0.0041  
Epoch 2582/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0041 - val\_loss: 0.0040  
Epoch 2583/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0038 - val\_loss: 0.0038  
Epoch 2584/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0037 - val\_loss: 0.0041  
Epoch 2585/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0042 - val\_loss: 0.0040  
Epoch 2586/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0038 - val\_loss: 0.0044  
Epoch 2587/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0039 - val\_loss: 0.0036  
Epoch 2588/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0038 - val\_loss: 0.0044  
Epoch 2589/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0047 - val\_loss: 0.0051  
Epoch 2590/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0046 - val\_loss: 0.0045  
Epoch 2591/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0046 - val\_loss: 0.0045  
Epoch 2592/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0041 - val\_loss: 0.0041  
Epoch 2593/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0040 - val\_loss: 0.0042  
Epoch 2594/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0038 - val\_loss: 0.0038

Epoch 2595/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0038 - val\_loss: 0.0046  
Epoch 2596/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0039 - val\_loss: 0.0038  
Epoch 2597/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0034 - val\_loss: 0.0035  
Epoch 2598/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0032 - val\_loss: 0.0033  
Epoch 2599/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss: 0.0033  
Epoch 2600/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0033 - val\_loss: 0.0037  
Epoch 2601/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0035 - val\_loss: 0.0037  
Epoch 2602/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0040 - val\_loss: 0.0033  
Epoch 2603/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0035 - val\_loss: 0.0036  
Epoch 2604/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0035 - val\_loss: 0.0032  
Epoch 2605/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0032 - val\_loss: 0.0034  
Epoch 2606/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0032 - val\_loss: 0.0034  
Epoch 2607/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0030 - val\_loss: 0.0033  
Epoch 2608/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0031  
Epoch 2609/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0035 - val\_loss: 0.0035  
Epoch 2610/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0033 - val\_loss: 0.0043

Epoch 2611/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0034 - val\_loss: 0.0034  
Epoch 2612/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss: 0.0031  
Epoch 2613/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss: 0.0039  
Epoch 2614/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0032 - val\_loss: 0.0030  
Epoch 2615/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss: 0.0032  
Epoch 2616/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0030 - val\_loss: 0.0034  
Epoch 2617/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss: 0.0032  
Epoch 2618/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0030 - val\_loss: 0.0033  
Epoch 2619/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss: 0.0031  
Epoch 2620/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss: 0.0034  
Epoch 2621/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0032 - val\_loss: 0.0038  
Epoch 2622/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0038 - val\_loss: 0.0040  
Epoch 2623/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0037 - val\_loss: 0.0038  
Epoch 2624/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss: 0.0029  
Epoch 2625/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0033 - val\_loss: 0.0035  
Epoch 2626/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0033 - val\_loss: 0.0031

Epoch 2627/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0034 - val\_loss: 0.0035  
Epoch 2628/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0039 - val\_loss: 0.0050  
Epoch 2629/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0039 - val\_loss: 0.0039  
Epoch 2630/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0038 - val\_loss: 0.0035  
Epoch 2631/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss: 0.0031  
Epoch 2632/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0032 - val\_loss: 0.0028  
Epoch 2633/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0032  
Epoch 2634/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0032 - val\_loss: 0.0034  
Epoch 2635/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0031  
Epoch 2636/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0030 - val\_loss: 0.0033  
Epoch 2637/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0031 - val\_loss: 0.0030  
Epoch 2638/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0033 - val\_loss: 0.0043  
Epoch 2639/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0035 - val\_loss: 0.0033  
Epoch 2640/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0030 - val\_loss: 0.0034  
Epoch 2641/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0032 - val\_loss: 0.0035  
Epoch 2642/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0036 - val\_loss: 0.0036

Epoch 2643/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0045 - val\_loss: 0.0041  
Epoch 2644/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0035 - val\_loss: 0.0036  
Epoch 2645/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0034 - val\_loss: 0.0034  
Epoch 2646/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0036 - val\_loss: 0.0043  
Epoch 2647/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0043 - val\_loss: 0.0039  
Epoch 2648/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0037 - val\_loss: 0.0036  
Epoch 2649/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0035 - val\_loss: 0.0038  
Epoch 2650/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0034 - val\_loss: 0.0040  
Epoch 2651/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0035 - val\_loss: 0.0040  
Epoch 2652/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0039 - val\_loss: 0.0041  
Epoch 2653/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0038 - val\_loss: 0.0033  
Epoch 2654/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0034 - val\_loss: 0.0032  
Epoch 2655/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss: 0.0032  
Epoch 2656/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0030 - val\_loss: 0.0033  
Epoch 2657/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0034 - val\_loss: 0.0035  
Epoch 2658/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0032 - val\_loss: 0.0039

Epoch 2659/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss: 0.0030  
Epoch 2660/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0032 - val\_loss: 0.0031  
Epoch 2661/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0034 - val\_loss: 0.0037  
Epoch 2662/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0031 - val\_loss: 0.0032  
Epoch 2663/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0032 - val\_loss: 0.0038  
Epoch 2664/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss: 0.0029  
Epoch 2665/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss: 0.0026  
Epoch 2666/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0029 - val\_loss: 0.0027  
Epoch 2667/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0027  
Epoch 2668/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0029 - val\_loss: 0.0029  
Epoch 2669/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0030  
Epoch 2670/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0030  
Epoch 2671/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0027  
Epoch 2672/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0031  
Epoch 2673/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0027  
Epoch 2674/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0033 - val\_loss: 0.0031



Epoch 2675/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0029  
Epoch 2676/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0046  
Epoch 2677/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0029  
Epoch 2678/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0027  
Epoch 2679/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0028  
Epoch 2680/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0029 - val\_loss: 0.0041  
Epoch 2681/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0028 - val\_loss: 0.0033  
Epoch 2682/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0030 - val\_loss: 0.0032  
Epoch 2683/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0032 - val\_loss: 0.0033  
Epoch 2684/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0030 - val\_loss: 0.0033  
Epoch 2685/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0035 - val\_loss: 0.0037  
Epoch 2686/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0034 - val\_loss: 0.0041  
Epoch 2687/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0034 - val\_loss: 0.0031  
Epoch 2688/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0029 - val\_loss: 0.0033  
Epoch 2689/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0032 - val\_loss: 0.0031  
Epoch 2690/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0030

Epoch 2691/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0033 - val\_loss:  
0.0031  
Epoch 2692/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0030 - val\_loss:  
0.0031  
Epoch 2693/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0043 - val\_loss:  
0.0043  
Epoch 2694/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0046 - val\_loss:  
0.0045  
Epoch 2695/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0045 - val\_loss:  
0.0038  
Epoch 2696/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0036 - val\_loss:  
0.0032  
Epoch 2697/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0033 - val\_loss:  
0.0031  
Epoch 2698/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss:  
0.0031  
Epoch 2699/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss:  
0.0030  
Epoch 2700/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss:  
0.0031  
Epoch 2701/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0029 - val\_loss:  
0.0034  
Epoch 2702/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0034 - val\_loss:  
0.0028  
Epoch 2703/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0033 - val\_loss:  
0.0040  
Epoch 2704/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0030 - val\_loss:  
0.0024  
Epoch 2705/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss:  
0.0024  
Epoch 2706/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss:  
0.0029

Epoch 2707/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0026  
Epoch 2708/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0026  
Epoch 2709/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0029  
Epoch 2710/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0030 - val\_loss: 0.0025  
Epoch 2711/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0026 - val\_loss: 0.0027  
Epoch 2712/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss: 0.0028  
Epoch 2713/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0027  
Epoch 2714/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0025  
Epoch 2715/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0029  
Epoch 2716/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0035 - val\_loss: 0.0040  
Epoch 2717/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0038 - val\_loss: 0.0040  
Epoch 2718/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0032 - val\_loss: 0.0032  
Epoch 2719/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0037 - val\_loss: 0.0033  
Epoch 2720/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0035 - val\_loss: 0.0033  
Epoch 2721/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0030 - val\_loss: 0.0034  
Epoch 2722/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss: 0.0028

Epoch 2723/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0029 - val\_loss: 0.0028  
Epoch 2724/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0029 - val\_loss: 0.0025  
Epoch 2725/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0026  
Epoch 2726/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0029 - val\_loss: 0.0029  
Epoch 2727/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0028 - val\_loss: 0.0026  
Epoch 2728/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0026  
Epoch 2729/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0029 - val\_loss: 0.0026  
Epoch 2730/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0028  
Epoch 2731/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0026  
Epoch 2732/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0027  
Epoch 2733/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0028  
Epoch 2734/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0029 - val\_loss: 0.0028  
Epoch 2735/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0029 - val\_loss: 0.0026  
Epoch 2736/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0027  
Epoch 2737/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0030 - val\_loss: 0.0031  
Epoch 2738/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0032 - val\_loss: 0.0033

Epoch 2739/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0030 - val\_loss: 0.0033  
Epoch 2740/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss: 0.0030  
Epoch 2741/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0031 - val\_loss: 0.0035  
Epoch 2742/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0033 - val\_loss: 0.0034  
Epoch 2743/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0029 - val\_loss: 0.0034  
Epoch 2744/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0032 - val\_loss: 0.0033  
Epoch 2745/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss: 0.0029  
Epoch 2746/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0027  
Epoch 2747/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss: 0.0028  
Epoch 2748/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0029 - val\_loss: 0.0027  
Epoch 2749/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0029 - val\_loss: 0.0025  
Epoch 2750/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0022  
Epoch 2751/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0023  
Epoch 2752/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0025 - val\_loss: 0.0021  
Epoch 2753/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0022  
Epoch 2754/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0027

Epoch 2755/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0022  
Epoch 2756/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0024  
Epoch 2757/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0026  
Epoch 2758/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0025  
Epoch 2759/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0030 - val\_loss: 0.0027  
Epoch 2760/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0024  
Epoch 2761/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0026  
Epoch 2762/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0025 - val\_loss: 0.0025  
Epoch 2763/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0025  
Epoch 2764/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0028 - val\_loss: 0.0026  
Epoch 2765/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0024  
Epoch 2766/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0025  
Epoch 2767/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0025  
Epoch 2768/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0030 - val\_loss: 0.0035  
Epoch 2769/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0029 - val\_loss: 0.0024  
Epoch 2770/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0028

Epoch 2771/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0024  
Epoch 2772/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0024  
Epoch 2773/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0024  
Epoch 2774/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0019  
Epoch 2775/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0020  
Epoch 2776/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0019  
Epoch 2777/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0020  
Epoch 2778/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0023  
Epoch 2779/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0018  
Epoch 2780/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0024  
Epoch 2781/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0019  
Epoch 2782/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0019  
Epoch 2783/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0022  
Epoch 2784/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0019  
Epoch 2785/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0020 - val\_loss: 0.0019  
Epoch 2786/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0021 - val\_loss: 0.0020

Epoch 2787/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0022 - val\_loss: 0.0022  
Epoch 2788/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0022 - val\_loss: 0.0024  
Epoch 2789/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0022 - val\_loss: 0.0022  
Epoch 2790/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0023 - val\_loss: 0.0024  
Epoch 2791/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0023 - val\_loss: 0.0022  
Epoch 2792/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0023 - val\_loss: 0.0022  
Epoch 2793/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0023  
Epoch 2794/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0024  
Epoch 2795/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0024  
Epoch 2796/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0023  
Epoch 2797/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0026  
Epoch 2798/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0023  
Epoch 2799/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0024  
Epoch 2800/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0025  
Epoch 2801/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0023  
Epoch 2802/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0022



Epoch 2803/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0023  
Epoch 2804/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0025 - val\_loss: 0.0023  
Epoch 2805/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0025  
Epoch 2806/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0025 - val\_loss: 0.0026  
Epoch 2807/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0028  
Epoch 2808/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0027 - val\_loss: 0.0023  
Epoch 2809/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0025  
Epoch 2810/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0022  
Epoch 2811/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0024  
Epoch 2812/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0021  
Epoch 2813/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0022  
Epoch 2814/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0027  
Epoch 2815/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0022  
Epoch 2816/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0020  
Epoch 2817/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0021 - val\_loss: 0.0025  
Epoch 2818/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0022

Epoch 2819/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0024

Epoch 2820/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0023

Epoch 2821/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0024 - val\_loss: 0.0025

Epoch 2822/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0028

Epoch 2823/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0022 - val\_loss: 0.0021

Epoch 2824/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0023

Epoch 2825/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0027

Epoch 2826/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0025 - val\_loss: 0.0024

Epoch 2827/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0024

Epoch 2828/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0022

Epoch 2829/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0023

Epoch 2830/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0023

Epoch 2831/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0026 - val\_loss: 0.0025

Epoch 2832/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0024 - val\_loss: 0.0023

Epoch 2833/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0024

Epoch 2834/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0023

Epoch 2835/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0024 - val\_loss: 0.0028  
Epoch 2836/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0027  
Epoch 2837/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0023  
Epoch 2838/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0025  
Epoch 2839/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0025  
Epoch 2840/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0023  
Epoch 2841/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0021 - val\_loss: 0.0022  
Epoch 2842/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0027  
Epoch 2843/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0021  
Epoch 2844/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0027 - val\_loss: 0.0029  
Epoch 2845/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0025 - val\_loss: 0.0024  
Epoch 2846/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0024 - val\_loss: 0.0024  
Epoch 2847/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0021 - val\_loss: 0.0020  
Epoch 2848/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0023 - val\_loss: 0.0024  
Epoch 2849/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0025 - val\_loss: 0.0024  
Epoch 2850/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0023 - val\_loss: 0.0024

Epoch 2851/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0024 - val\_loss: 0.0025  
Epoch 2852/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0023 - val\_loss: 0.0025  
Epoch 2853/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0022 - val\_loss: 0.0020  
Epoch 2854/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0023 - val\_loss: 0.0023  
Epoch 2855/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0022 - val\_loss: 0.0023  
Epoch 2856/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0023  
Epoch 2857/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0020  
Epoch 2858/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0023  
Epoch 2859/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0024  
Epoch 2860/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0026  
Epoch 2861/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0025 - val\_loss: 0.0025  
Epoch 2862/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0027  
Epoch 2863/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0026  
Epoch 2864/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0025  
Epoch 2865/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0023  
Epoch 2866/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0023

Epoch 2867/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0023  
Epoch 2868/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0024  
Epoch 2869/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0021  
Epoch 2870/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0024 - val\_loss: 0.0020  
Epoch 2871/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0020  
Epoch 2872/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0021 - val\_loss: 0.0023  
Epoch 2873/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0022  
Epoch 2874/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0023  
Epoch 2875/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0020  
Epoch 2876/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0021  
Epoch 2877/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0025  
Epoch 2878/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0021  
Epoch 2879/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0021 - val\_loss: 0.0019  
Epoch 2880/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0021 - val\_loss: 0.0021  
Epoch 2881/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0028  
Epoch 2882/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0025 - val\_loss: 0.0024

Epoch 2883/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0024 - val\_loss: 0.0025  
Epoch 2884/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0024  
Epoch 2885/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0019  
Epoch 2886/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0021  
Epoch 2887/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0022  
Epoch 2888/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0022  
Epoch 2889/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0022 - val\_loss: 0.0021  
Epoch 2890/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0022 - val\_loss: 0.0027  
Epoch 2891/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0022  
Epoch 2892/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0021  
Epoch 2893/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0021  
Epoch 2894/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0029  
Epoch 2895/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0026  
Epoch 2896/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0022  
Epoch 2897/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0018  
Epoch 2898/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0017

Epoch 2899/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0019 - val\_loss: 0.0023  
Epoch 2900/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0019  
Epoch 2901/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0021  
Epoch 2902/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0024  
Epoch 2903/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0020  
Epoch 2904/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0018  
Epoch 2905/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0022  
Epoch 2906/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0016  
Epoch 2907/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0017  
Epoch 2908/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0021  
Epoch 2909/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0027  
Epoch 2910/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0019  
Epoch 2911/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0020  
Epoch 2912/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0016  
Epoch 2913/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0019  
Epoch 2914/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0018

Epoch 2915/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0017 - val\_loss: 0.0018  
Epoch 2916/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0020  
Epoch 2917/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0027  
Epoch 2918/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0020  
Epoch 2919/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0026  
Epoch 2920/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0021  
Epoch 2921/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0017  
Epoch 2922/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0018  
Epoch 2923/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0018  
Epoch 2924/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss: 0.0020  
Epoch 2925/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0018  
Epoch 2926/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss: 0.0022  
Epoch 2927/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0020  
Epoch 2928/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0022  
Epoch 2929/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0016  
Epoch 2930/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0018



Epoch 2931/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0021  
Epoch 2932/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0019  
Epoch 2933/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0015  
Epoch 2934/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0020  
Epoch 2935/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0017  
Epoch 2936/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0018  
Epoch 2937/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0018  
Epoch 2938/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0024  
Epoch 2939/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0016  
Epoch 2940/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0017 - val\_loss: 0.0014  
Epoch 2941/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0019  
Epoch 2942/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0016  
Epoch 2943/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0016  
Epoch 2944/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0019  
Epoch 2945/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0017  
Epoch 2946/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0015

Epoch 2947/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0019  
Epoch 2948/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0021 - val\_loss: 0.0022  
Epoch 2949/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0019 - val\_loss: 0.0021  
Epoch 2950/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0021  
Epoch 2951/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0020  
Epoch 2952/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0015  
Epoch 2953/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0021  
Epoch 2954/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss: 0.0018  
Epoch 2955/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0022 - val\_loss: 0.0022  
Epoch 2956/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0021  
Epoch 2957/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0018  
Epoch 2958/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0018  
Epoch 2959/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0028  
Epoch 2960/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0028  
Epoch 2961/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0022  
Epoch 2962/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0021 - val\_loss: 0.0021

Epoch 2963/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0022 - val\_loss: 0.0020  
Epoch 2964/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0020  
Epoch 2965/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0021  
Epoch 2966/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0020  
Epoch 2967/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0021  
Epoch 2968/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0020 - val\_loss: 0.0023  
Epoch 2969/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0020  
Epoch 2970/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0018  
Epoch 2971/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0018  
Epoch 2972/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0020  
Epoch 2973/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0019  
Epoch 2974/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0024  
Epoch 2975/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0021  
Epoch 2976/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0021  
Epoch 2977/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0020 - val\_loss: 0.0019  
Epoch 2978/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0018

Epoch 2979/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0021  
Epoch 2980/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0020  
Epoch 2981/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0020 - val\_loss: 0.0022  
Epoch 2982/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0021  
Epoch 2983/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0021  
Epoch 2984/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0022  
Epoch 2985/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0019  
Epoch 2986/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0018  
Epoch 2987/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0019 - val\_loss: 0.0023  
Epoch 2988/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0019  
Epoch 2989/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0020  
Epoch 2990/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0021  
Epoch 2991/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0020 - val\_loss: 0.0021  
Epoch 2992/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0020 - val\_loss: 0.0019  
Epoch 2993/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0021 - val\_loss: 0.0021  
Epoch 2994/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0024

Epoch 2995/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0029 - val\_loss: 0.0030  
Epoch 2996/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0029 - val\_loss: 0.0027  
Epoch 2997/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0027  
Epoch 2998/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0023  
Epoch 2999/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0028  
Epoch 3000/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0028  
Epoch 3001/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0026  
Epoch 3002/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0027  
Epoch 3003/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0027  
Epoch 3004/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0026  
Epoch 3005/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0026  
Epoch 3006/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0025  
Epoch 3007/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0028 - val\_loss: 0.0029  
Epoch 3008/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0028  
Epoch 3009/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0024  
Epoch 3010/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0026

Epoch 3011/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0027  
Epoch 3012/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0025  
Epoch 3013/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0024  
Epoch 3014/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0024  
Epoch 3015/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0022  
Epoch 3016/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0023  
Epoch 3017/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0022  
Epoch 3018/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0021 - val\_loss: 0.0021  
Epoch 3019/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0023  
Epoch 3020/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0021  
Epoch 3021/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0021 - val\_loss: 0.0019  
Epoch 3022/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0020  
Epoch 3023/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0024  
Epoch 3024/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0022  
Epoch 3025/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0021  
Epoch 3026/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0022

Epoch 3027/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0022  
Epoch 3028/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0023 - val\_loss: 0.0020  
Epoch 3029/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0021  
Epoch 3030/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0021  
Epoch 3031/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0020  
Epoch 3032/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0020  
Epoch 3033/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0019 - val\_loss: 0.0019  
Epoch 3034/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0020  
Epoch 3035/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0020  
Epoch 3036/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0021  
Epoch 3037/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0020  
Epoch 3038/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0019 - val\_loss: 0.0018  
Epoch 3039/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0018  
Epoch 3040/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0018  
Epoch 3041/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0018  
Epoch 3042/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0017

Epoch 3043/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0018  
Epoch 3044/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0017  
Epoch 3045/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0019 - val\_loss: 0.0017  
Epoch 3046/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0019 - val\_loss: 0.0019  
Epoch 3047/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss: 0.0018  
Epoch 3048/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss: 0.0016  
Epoch 3049/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0019 - val\_loss: 0.0021  
Epoch 3050/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0023  
Epoch 3051/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0020  
Epoch 3052/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0019  
Epoch 3053/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0019  
Epoch 3054/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0019  
Epoch 3055/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0017  
Epoch 3056/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0017  
Epoch 3057/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0018  
Epoch 3058/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0017



Epoch 3059/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss: 0.0020  
Epoch 3060/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0019  
Epoch 3061/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0020  
Epoch 3062/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0020 - val\_loss: 0.0020  
Epoch 3063/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0021 - val\_loss: 0.0021  
Epoch 3064/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0021  
Epoch 3065/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0020  
Epoch 3066/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0017  
Epoch 3067/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0018  
Epoch 3068/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0019  
Epoch 3069/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0017  
Epoch 3070/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0017  
Epoch 3071/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0018  
Epoch 3072/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0019 - val\_loss: 0.0019  
Epoch 3073/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0017  
Epoch 3074/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0021

Epoch 3075/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0018  
Epoch 3076/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0019  
Epoch 3077/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0018  
Epoch 3078/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0019 - val\_loss: 0.0017  
Epoch 3079/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0018  
Epoch 3080/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0016  
Epoch 3081/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0017  
Epoch 3082/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0017  
Epoch 3083/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0016  
Epoch 3084/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0018  
Epoch 3085/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0017  
Epoch 3086/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0017  
Epoch 3087/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0017  
Epoch 3088/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0017 - val\_loss: 0.0018  
Epoch 3089/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss: 0.0015  
Epoch 3090/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0016

Epoch 3091/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0021

Epoch 3092/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0018

Epoch 3093/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0016 - val\_loss: 0.0017

Epoch 3094/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss: 0.0018

Epoch 3095/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0016 - val\_loss: 0.0018

Epoch 3096/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0017

Epoch 3097/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0024

Epoch 3098/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0018

Epoch 3099/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0022

Epoch 3100/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0017

Epoch 3101/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0021

Epoch 3102/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0018

Epoch 3103/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0015

Epoch 3104/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0018

Epoch 3105/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0017

Epoch 3106/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0020

Epoch 3107/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0015  
Epoch 3108/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0021  
Epoch 3109/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0018  
Epoch 3110/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0018  
Epoch 3111/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0021  
Epoch 3112/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0017  
Epoch 3113/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0018  
Epoch 3114/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0019  
Epoch 3115/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0017  
Epoch 3116/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0016  
Epoch 3117/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0016 - val\_loss: 0.0017  
Epoch 3118/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0020  
Epoch 3119/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0017  
Epoch 3120/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0018  
Epoch 3121/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0016  
Epoch 3122/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0016

Epoch 3123/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0018  
Epoch 3124/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0016 - val\_loss: 0.0016  
Epoch 3125/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0017 - val\_loss: 0.0015  
Epoch 3126/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0016  
Epoch 3127/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0014  
Epoch 3128/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0020  
Epoch 3129/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0020  
Epoch 3130/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0017  
Epoch 3131/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0015  
Epoch 3132/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0020  
Epoch 3133/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0019  
Epoch 3134/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0017  
Epoch 3135/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0020  
Epoch 3136/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0019  
Epoch 3137/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0021  
Epoch 3138/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0021

Epoch 3139/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0021  
Epoch 3140/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0024  
Epoch 3141/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0022  
Epoch 3142/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0019  
Epoch 3143/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0023  
Epoch 3144/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0021 - val\_loss: 0.0021  
Epoch 3145/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0025 - val\_loss: 0.0034  
Epoch 3146/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0029 - val\_loss: 0.0032  
Epoch 3147/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0030 - val\_loss: 0.0024  
Epoch 3148/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0023 - val\_loss: 0.0025  
Epoch 3149/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0023 - val\_loss: 0.0020  
Epoch 3150/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0024 - val\_loss: 0.0024  
Epoch 3151/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0025 - val\_loss: 0.0023  
Epoch 3152/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0020 - val\_loss: 0.0020  
Epoch 3153/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0019 - val\_loss: 0.0020  
Epoch 3154/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0020 - val\_loss: 0.0020

Epoch 3155/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss: 0.0018  
Epoch 3156/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0022  
Epoch 3157/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0020  
Epoch 3158/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0021 - val\_loss: 0.0022  
Epoch 3159/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0022 - val\_loss: 0.0022  
Epoch 3160/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0023 - val\_loss: 0.0024  
Epoch 3161/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0024 - val\_loss: 0.0022  
Epoch 3162/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0025 - val\_loss: 0.0025  
Epoch 3163/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0026 - val\_loss: 0.0030  
Epoch 3164/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0034 - val\_loss: 0.0039  
Epoch 3165/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0029 - val\_loss: 0.0031  
Epoch 3166/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0020  
Epoch 3167/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0020  
Epoch 3168/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0022 - val\_loss: 0.0020  
Epoch 3169/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0018  
Epoch 3170/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0020 - val\_loss: 0.0019

Epoch 3171/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss: 0.0019  
Epoch 3172/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0018 - val\_loss: 0.0019  
Epoch 3173/100000  
63/63 [=====] - 0s 6ms/step - loss: 0.0019 - val\_loss: 0.0018  
Epoch 3174/100000  
63/63 [=====] - 0s 6ms/step - loss: 0.0019 - val\_loss: 0.0017  
Epoch 3175/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss: 0.0018  
Epoch 3176/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss: 0.0020  
Epoch 3177/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss: 0.0018  
Epoch 3178/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0017 - val\_loss: 0.0018  
Epoch 3179/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss: 0.0018  
Epoch 3180/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0018 - val\_loss: 0.0019  
Epoch 3181/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0017 - val\_loss: 0.0019  
Epoch 3182/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0019 - val\_loss: 0.0021  
Epoch 3183/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0020 - val\_loss: 0.0022  
Epoch 3184/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss: 0.0019  
Epoch 3185/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0017  
Epoch 3186/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss: 0.0016



Epoch 3187/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss: 0.0018  
Epoch 3188/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0017 - val\_loss: 0.0016  
Epoch 3189/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss: 0.0017  
Epoch 3190/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss: 0.0015  
Epoch 3191/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0017 - val\_loss: 0.0016  
Epoch 3192/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0017 - val\_loss: 0.0016  
Epoch 3193/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0019 - val\_loss: 0.0019  
Epoch 3194/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0019 - val\_loss: 0.0016  
Epoch 3195/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss: 0.0015  
Epoch 3196/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0017  
Epoch 3197/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss: 0.0019  
Epoch 3198/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0019 - val\_loss: 0.0018  
Epoch 3199/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0017 - val\_loss: 0.0019  
Epoch 3200/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0017 - val\_loss: 0.0016  
Epoch 3201/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0017 - val\_loss: 0.0016  
Epoch 3202/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0017 - val\_loss: 0.0015

Epoch 3203/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0016 - val\_loss: 0.0016

Epoch 3204/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0017 - val\_loss: 0.0020

Epoch 3205/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss: 0.0017

Epoch 3206/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0017 - val\_loss: 0.0018

Epoch 3207/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss: 0.0020

Epoch 3208/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0019

Epoch 3209/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0019

Epoch 3210/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0018

Epoch 3211/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss: 0.0018

Epoch 3212/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0017 - val\_loss: 0.0014

Epoch 3213/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0016 - val\_loss: 0.0018

Epoch 3214/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0019 - val\_loss: 0.0020

Epoch 3215/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0017

Epoch 3216/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0020

Epoch 3217/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0022

Epoch 3218/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0017

Epoch 3219/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0018  
Epoch 3220/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0017  
Epoch 3221/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0018  
Epoch 3222/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0016  
Epoch 3223/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0017  
Epoch 3224/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0018  
Epoch 3225/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0016  
Epoch 3226/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0016 - val\_loss: 0.0017  
Epoch 3227/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0020 - val\_loss: 0.0026  
Epoch 3228/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0042  
Epoch 3229/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0030 - val\_loss: 0.0040  
Epoch 3230/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss: 0.0032  
Epoch 3231/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0029 - val\_loss: 0.0033  
Epoch 3232/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss: 0.0034  
Epoch 3233/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0027  
Epoch 3234/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0026

Epoch 3235/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0027  
Epoch 3236/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0028  
Epoch 3237/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0026  
Epoch 3238/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0027  
Epoch 3239/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0027  
Epoch 3240/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0026  
Epoch 3241/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0026  
Epoch 3242/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0032  
Epoch 3243/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0033  
Epoch 3244/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0026  
Epoch 3245/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0029  
Epoch 3246/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0025  
Epoch 3247/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0025  
Epoch 3248/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0025  
Epoch 3249/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0024  
Epoch 3250/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0022

Epoch 3251/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0029  
Epoch 3252/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0023  
Epoch 3253/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0026  
Epoch 3254/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0025  
Epoch 3255/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0021  
Epoch 3256/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0030  
Epoch 3257/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0024  
Epoch 3258/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0024  
Epoch 3259/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0022  
Epoch 3260/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0022  
Epoch 3261/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0024  
Epoch 3262/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0025  
Epoch 3263/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0023  
Epoch 3264/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0026  
Epoch 3265/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0022  
Epoch 3266/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0023

Epoch 3267/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0022  
Epoch 3268/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0027  
Epoch 3269/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0022  
Epoch 3270/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0023  
Epoch 3271/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0021 - val\_loss: 0.0022  
Epoch 3272/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0020 - val\_loss: 0.0022  
Epoch 3273/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0022  
Epoch 3274/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0019  
Epoch 3275/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0018  
Epoch 3276/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0021  
Epoch 3277/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0024 - val\_loss: 0.0027  
Epoch 3278/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0021 - val\_loss: 0.0022  
Epoch 3279/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0020 - val\_loss: 0.0022  
Epoch 3280/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0022  
Epoch 3281/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0021  
Epoch 3282/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0020

Epoch 3283/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0017 - val\_loss: 0.0020  
Epoch 3284/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss: 0.0021  
Epoch 3285/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0020  
Epoch 3286/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0018 - val\_loss: 0.0024  
Epoch 3287/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0023 - val\_loss: 0.0025  
Epoch 3288/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0020 - val\_loss: 0.0026  
Epoch 3289/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss: 0.0021  
Epoch 3290/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0018  
Epoch 3291/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0016 - val\_loss: 0.0016  
Epoch 3292/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0016 - val\_loss: 0.0020  
Epoch 3293/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0020  
Epoch 3294/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0017  
Epoch 3295/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0014  
Epoch 3296/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0016  
Epoch 3297/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0017  
Epoch 3298/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0015

Epoch 3299/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0016  
Epoch 3300/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0017  
Epoch 3301/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0013  
Epoch 3302/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0016  
Epoch 3303/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0016  
Epoch 3304/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0019  
Epoch 3305/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0015 - val\_loss: 0.0016  
Epoch 3306/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0016  
Epoch 3307/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0014  
Epoch 3308/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0013  
Epoch 3309/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0019  
Epoch 3310/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0016  
Epoch 3311/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0018  
Epoch 3312/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0015 - val\_loss: 0.0015  
Epoch 3313/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0014 - val\_loss: 0.0013  
Epoch 3314/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0016 - val\_loss: 0.0016



Epoch 3315/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0015 - val\_loss: 0.0014  
Epoch 3316/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0017 - val\_loss: 0.0015  
Epoch 3317/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0015  
Epoch 3318/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0016  
Epoch 3319/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0014  
Epoch 3320/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0017  
Epoch 3321/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0014 - val\_loss: 0.0013  
Epoch 3322/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0014 - val\_loss: 0.0014  
Epoch 3323/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0016  
Epoch 3324/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0015 - val\_loss: 0.0015  
Epoch 3325/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0014 - val\_loss: 0.0017  
Epoch 3326/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0014  
Epoch 3327/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0016 - val\_loss: 0.0020  
Epoch 3328/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0022  
Epoch 3329/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss: 0.0025  
Epoch 3330/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0026 - val\_loss: 0.0032

Epoch 3331/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0033 - val\_loss: 0.0033  
Epoch 3332/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0029  
Epoch 3333/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0015 - val\_loss: 0.0014  
Epoch 3334/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0020  
Epoch 3335/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0016  
Epoch 3336/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0019  
Epoch 3337/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0016  
Epoch 3338/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0014  
Epoch 3339/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0015  
Epoch 3340/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0014 - val\_loss: 0.0014  
Epoch 3341/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0016  
Epoch 3342/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0015  
Epoch 3343/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0015  
Epoch 3344/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0014 - val\_loss: 0.0014  
Epoch 3345/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0014  
Epoch 3346/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0015

Epoch 3347/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss:  
0.0014  
Epoch 3348/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss:  
0.0015  
Epoch 3349/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss:  
0.0014  
Epoch 3350/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss:  
0.0014  
Epoch 3351/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss:  
0.0014  
Epoch 3352/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss:  
0.0013  
Epoch 3353/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss:  
0.0015  
Epoch 3354/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss:  
0.0013  
Epoch 3355/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss:  
0.0013  
Epoch 3356/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss:  
0.0017  
Epoch 3357/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss:  
0.0016  
Epoch 3358/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss:  
0.0014  
Epoch 3359/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0013 - val\_loss:  
0.0014  
Epoch 3360/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss:  
0.0013  
Epoch 3361/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss:  
0.0015  
Epoch 3362/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss:  
0.0013

Epoch 3363/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss:  
0.0013  
Epoch 3364/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss:  
0.0014  
Epoch 3365/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss:  
0.0014  
Epoch 3366/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss:  
0.0012  
Epoch 3367/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss:  
0.0014  
Epoch 3368/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss:  
0.0012  
Epoch 3369/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss:  
0.0013  
Epoch 3370/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss:  
0.0014  
Epoch 3371/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0013 - val\_loss:  
0.0012  
Epoch 3372/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss:  
0.0013  
Epoch 3373/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss:  
0.0016  
Epoch 3374/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss:  
0.0013  
Epoch 3375/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss:  
0.0013  
Epoch 3376/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss:  
0.0012  
Epoch 3377/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss:  
0.0013  
Epoch 3378/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss:  
0.0011

Epoch 3379/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0011  
Epoch 3380/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0012  
Epoch 3381/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0015  
Epoch 3382/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0012  
Epoch 3383/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0012  
Epoch 3384/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0013 - val\_loss: 0.0013  
Epoch 3385/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0014 - val\_loss: 0.0015  
Epoch 3386/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0025  
Epoch 3387/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0021 - val\_loss: 0.0026  
Epoch 3388/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0017  
Epoch 3389/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0023  
Epoch 3390/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0020 - val\_loss: 0.0022  
Epoch 3391/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0019  
Epoch 3392/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0016  
Epoch 3393/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0021 - val\_loss: 0.0024  
Epoch 3394/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0020 - val\_loss: 0.0020

Epoch 3395/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0021 - val\_loss: 0.0024  
Epoch 3396/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0020 - val\_loss: 0.0025  
Epoch 3397/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0019 - val\_loss: 0.0019  
Epoch 3398/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss: 0.0021  
Epoch 3399/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0022 - val\_loss: 0.0019  
Epoch 3400/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0021  
Epoch 3401/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0022  
Epoch 3402/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0020 - val\_loss: 0.0018  
Epoch 3403/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0017 - val\_loss: 0.0015  
Epoch 3404/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0020  
Epoch 3405/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss: 0.0018  
Epoch 3406/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0022  
Epoch 3407/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0021 - val\_loss: 0.0019  
Epoch 3408/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0020 - val\_loss: 0.0022  
Epoch 3409/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0019  
Epoch 3410/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0019

Epoch 3411/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0018  
Epoch 3412/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0014  
Epoch 3413/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0021  
Epoch 3414/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0019  
Epoch 3415/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0024  
Epoch 3416/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0020  
Epoch 3417/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0015  
Epoch 3418/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0014  
Epoch 3419/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0016  
Epoch 3420/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0017  
Epoch 3421/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0015 - val\_loss: 0.0018  
Epoch 3422/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss: 0.0020  
Epoch 3423/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0018  
Epoch 3424/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0019  
Epoch 3425/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0019  
Epoch 3426/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0016

Epoch 3427/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0018  
Epoch 3428/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0015 - val\_loss: 0.0016  
Epoch 3429/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0018  
Epoch 3430/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0019  
Epoch 3431/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0017  
Epoch 3432/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0016  
Epoch 3433/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0017 - val\_loss: 0.0016  
Epoch 3434/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0019  
Epoch 3435/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0016  
Epoch 3436/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0018  
Epoch 3437/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0015  
Epoch 3438/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0019  
Epoch 3439/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0016  
Epoch 3440/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0016  
Epoch 3441/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0014  
Epoch 3442/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0017



Epoch 3443/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0017  
Epoch 3444/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0038  
Epoch 3445/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0021  
Epoch 3446/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0019  
Epoch 3447/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0015  
Epoch 3448/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0017  
Epoch 3449/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0018  
Epoch 3450/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0018  
Epoch 3451/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0016  
Epoch 3452/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0018  
Epoch 3453/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0020  
Epoch 3454/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0015  
Epoch 3455/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0015  
Epoch 3456/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0017 - val\_loss: 0.0013  
Epoch 3457/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0014 - val\_loss: 0.0016  
Epoch 3458/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0017

Epoch 3459/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0020

Epoch 3460/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0017

Epoch 3461/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0016

Epoch 3462/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0018

Epoch 3463/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0024

Epoch 3464/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0017

Epoch 3465/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0019

Epoch 3466/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0018

Epoch 3467/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0017

Epoch 3468/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0019

Epoch 3469/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0018

Epoch 3470/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0016

Epoch 3471/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0016

Epoch 3472/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0014

Epoch 3473/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0017 - val\_loss: 0.0020

Epoch 3474/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0020

Epoch 3475/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0016  
Epoch 3476/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0014  
Epoch 3477/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0022  
Epoch 3478/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0017 - val\_loss: 0.0018  
Epoch 3479/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0017 - val\_loss: 0.0016  
Epoch 3480/100000  
63/63 [=====] - 0s 6ms/step - loss: 0.0014 - val\_loss: 0.0016  
Epoch 3481/100000  
63/63 [=====] - 0s 6ms/step - loss: 0.0013 - val\_loss: 0.0016  
Epoch 3482/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0013 - val\_loss: 0.0015  
Epoch 3483/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0014 - val\_loss: 0.0014  
Epoch 3484/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss: 0.0015  
Epoch 3485/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0017  
Epoch 3486/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss: 0.0017  
Epoch 3487/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0015  
Epoch 3488/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0016  
Epoch 3489/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0014  
Epoch 3490/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss: 0.0015

Epoch 3491/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss: 0.0014  
Epoch 3492/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0014 - val\_loss: 0.0013  
Epoch 3493/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0014 - val\_loss: 0.0015  
Epoch 3494/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0017  
Epoch 3495/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0013  
Epoch 3496/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0015  
Epoch 3497/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0015  
Epoch 3498/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0017  
Epoch 3499/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0017  
Epoch 3500/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0015 - val\_loss: 0.0017  
Epoch 3501/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0018  
Epoch 3502/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0029 - val\_loss: 0.0026  
Epoch 3503/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0029 - val\_loss: 0.0026  
Epoch 3504/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0027 - val\_loss: 0.0028  
Epoch 3505/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0027  
Epoch 3506/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0023

Epoch 3507/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0024

Epoch 3508/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0034 - val\_loss: 0.0027

Epoch 3509/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0030

Epoch 3510/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0024

Epoch 3511/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0026

Epoch 3512/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0026

Epoch 3513/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0027

Epoch 3514/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0021

Epoch 3515/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0034

Epoch 3516/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0040 - val\_loss: 0.0044

Epoch 3517/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0040 - val\_loss: 0.0031

Epoch 3518/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0031 - val\_loss: 0.0033

Epoch 3519/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0033 - val\_loss: 0.0036

Epoch 3520/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0031 - val\_loss: 0.0031

Epoch 3521/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0029 - val\_loss: 0.0028

Epoch 3522/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0029 - val\_loss: 0.0027

Epoch 3523/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0027  
Epoch 3524/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0030 - val\_loss: 0.0047  
Epoch 3525/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0050 - val\_loss: 0.0035  
Epoch 3526/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0035 - val\_loss: 0.0032  
Epoch 3527/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0032 - val\_loss: 0.0041  
Epoch 3528/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0039 - val\_loss: 0.0041  
Epoch 3529/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0034 - val\_loss: 0.0032  
Epoch 3530/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0029 - val\_loss: 0.0029  
Epoch 3531/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0030 - val\_loss: 0.0030  
Epoch 3532/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0032 - val\_loss: 0.0040  
Epoch 3533/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0035 - val\_loss: 0.0039  
Epoch 3534/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0033 - val\_loss: 0.0037  
Epoch 3535/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0032 - val\_loss: 0.0036  
Epoch 3536/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0030 - val\_loss: 0.0037  
Epoch 3537/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0029 - val\_loss: 0.0035  
Epoch 3538/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0034 - val\_loss: 0.0037

Epoch 3539/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0033 - val\_loss: 0.0043  
Epoch 3540/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0033 - val\_loss: 0.0037  
Epoch 3541/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss: 0.0034  
Epoch 3542/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0029 - val\_loss: 0.0035  
Epoch 3543/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0029 - val\_loss: 0.0031  
Epoch 3544/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0030 - val\_loss: 0.0032  
Epoch 3545/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0029 - val\_loss: 0.0030  
Epoch 3546/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0030  
Epoch 3547/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0028 - val\_loss: 0.0032  
Epoch 3548/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0033  
Epoch 3549/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0033  
Epoch 3550/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0032  
Epoch 3551/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0036  
Epoch 3552/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0029 - val\_loss: 0.0029  
Epoch 3553/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0032  
Epoch 3554/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0028 - val\_loss: 0.0032

Epoch 3555/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss: 0.0033  
Epoch 3556/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0026 - val\_loss: 0.0031  
Epoch 3557/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0031  
Epoch 3558/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0036  
Epoch 3559/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0026 - val\_loss: 0.0035  
Epoch 3560/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0028 - val\_loss: 0.0029  
Epoch 3561/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0026 - val\_loss: 0.0029  
Epoch 3562/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0029  
Epoch 3563/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0025 - val\_loss: 0.0031  
Epoch 3564/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0030  
Epoch 3565/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0021  
Epoch 3566/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0017  
Epoch 3567/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0015  
Epoch 3568/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0024  
Epoch 3569/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0026  
Epoch 3570/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0022



Epoch 3571/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0020

Epoch 3572/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0026

Epoch 3573/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0023

Epoch 3574/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0023

Epoch 3575/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0023

Epoch 3576/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0021

Epoch 3577/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0025

Epoch 3578/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0024

Epoch 3579/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0029

Epoch 3580/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0025

Epoch 3581/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0023 - val\_loss: 0.0024

Epoch 3582/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0023 - val\_loss: 0.0023

Epoch 3583/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0021

Epoch 3584/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0024

Epoch 3585/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0023

Epoch 3586/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0021

Epoch 3587/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0024  
Epoch 3588/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0024  
Epoch 3589/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0022  
Epoch 3590/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0024  
Epoch 3591/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0022  
Epoch 3592/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0024  
Epoch 3593/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0026  
Epoch 3594/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0024  
Epoch 3595/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0022 - val\_loss: 0.0019  
Epoch 3596/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0020 - val\_loss: 0.0017  
Epoch 3597/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss: 0.0021  
Epoch 3598/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0019 - val\_loss: 0.0017  
Epoch 3599/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0017  
Epoch 3600/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0020 - val\_loss: 0.0018  
Epoch 3601/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0020  
Epoch 3602/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0017 - val\_loss: 0.0020

Epoch 3603/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0020  
Epoch 3604/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0017 - val\_loss: 0.0022  
Epoch 3605/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0024  
Epoch 3606/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0021 - val\_loss: 0.0017  
Epoch 3607/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0019  
Epoch 3608/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0019  
Epoch 3609/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0024  
Epoch 3610/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0016  
Epoch 3611/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0017  
Epoch 3612/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0020 - val\_loss: 0.0020  
Epoch 3613/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0021 - val\_loss: 0.0025  
Epoch 3614/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0021 - val\_loss: 0.0019  
Epoch 3615/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss: 0.0024  
Epoch 3616/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0020  
Epoch 3617/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0020  
Epoch 3618/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0018

Epoch 3619/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0021  
Epoch 3620/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0020 - val\_loss: 0.0015  
Epoch 3621/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0018  
Epoch 3622/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0024  
Epoch 3623/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0019  
Epoch 3624/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0022 - val\_loss: 0.0022  
Epoch 3625/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0021 - val\_loss: 0.0017  
Epoch 3626/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0016 - val\_loss: 0.0017  
Epoch 3627/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss: 0.0020  
Epoch 3628/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0018  
Epoch 3629/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0017 - val\_loss: 0.0019  
Epoch 3630/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0023  
Epoch 3631/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0020 - val\_loss: 0.0022  
Epoch 3632/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0019  
Epoch 3633/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0022  
Epoch 3634/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0020

Epoch 3635/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0019 - val\_loss: 0.0018  
Epoch 3636/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0016  
Epoch 3637/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0014  
Epoch 3638/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0017  
Epoch 3639/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss: 0.0018  
Epoch 3640/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0015  
Epoch 3641/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0020  
Epoch 3642/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss: 0.0021  
Epoch 3643/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0019 - val\_loss: 0.0020  
Epoch 3644/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0022  
Epoch 3645/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0016  
Epoch 3646/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0017  
Epoch 3647/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0022  
Epoch 3648/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0020  
Epoch 3649/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0018  
Epoch 3650/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0017 - val\_loss: 0.0015

Epoch 3651/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0017  
Epoch 3652/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0017  
Epoch 3653/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0016  
Epoch 3654/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0017 - val\_loss: 0.0017  
Epoch 3655/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss: 0.0018  
Epoch 3656/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0021  
Epoch 3657/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0025  
Epoch 3658/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0019 - val\_loss: 0.0021  
Epoch 3659/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0019 - val\_loss: 0.0028  
Epoch 3660/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0017  
Epoch 3661/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0019  
Epoch 3662/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0019  
Epoch 3663/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0020  
Epoch 3664/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0018  
Epoch 3665/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0016  
Epoch 3666/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0017

Epoch 3667/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss:  
0.0020  
Epoch 3668/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0016 - val\_loss:  
0.0020  
Epoch 3669/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss:  
0.0017  
Epoch 3670/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss:  
0.0018  
Epoch 3671/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss:  
0.0020  
Epoch 3672/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss:  
0.0014  
Epoch 3673/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss:  
0.0015  
Epoch 3674/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss:  
0.0018  
Epoch 3675/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss:  
0.0018  
Epoch 3676/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss:  
0.0018  
Epoch 3677/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss:  
0.0019  
Epoch 3678/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss:  
0.0016  
Epoch 3679/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss:  
0.0018  
Epoch 3680/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss:  
0.0018  
Epoch 3681/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss:  
0.0015  
Epoch 3682/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0015 - val\_loss:  
0.0019

Epoch 3683/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0017 - val\_loss: 0.0014  
Epoch 3684/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0017 - val\_loss: 0.0016  
Epoch 3685/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0016  
Epoch 3686/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0016  
Epoch 3687/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0017  
Epoch 3688/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0015 - val\_loss: 0.0016  
Epoch 3689/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0014 - val\_loss: 0.0014  
Epoch 3690/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0018  
Epoch 3691/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0022 - val\_loss: 0.0021  
Epoch 3692/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0017  
Epoch 3693/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss: 0.0014  
Epoch 3694/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0015  
Epoch 3695/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0016 - val\_loss: 0.0017  
Epoch 3696/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss: 0.0022  
Epoch 3697/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0017  
Epoch 3698/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0017 - val\_loss: 0.0018



Epoch 3699/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0016 - val\_loss: 0.0018  
Epoch 3700/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0015 - val\_loss: 0.0017  
Epoch 3701/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0015  
Epoch 3702/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0016 - val\_loss: 0.0019  
Epoch 3703/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0019 - val\_loss: 0.0016  
Epoch 3704/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0016 - val\_loss: 0.0014  
Epoch 3705/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0014 - val\_loss: 0.0015  
Epoch 3706/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0013 - val\_loss: 0.0014  
Epoch 3707/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0014 - val\_loss: 0.0017  
Epoch 3708/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0015 - val\_loss: 0.0016  
Epoch 3709/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0018  
Epoch 3710/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0016  
Epoch 3711/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0015  
Epoch 3712/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0016 - val\_loss: 0.0011  
Epoch 3713/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0014 - val\_loss: 0.0017  
Epoch 3714/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0015 - val\_loss: 0.0019

Epoch 3715/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0019  
Epoch 3716/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0017  
Epoch 3717/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0015 - val\_loss: 0.0019  
Epoch 3718/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0016  
Epoch 3719/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0019  
Epoch 3720/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0017  
Epoch 3721/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0017  
Epoch 3722/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0015  
Epoch 3723/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0015  
Epoch 3724/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0012  
Epoch 3725/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0015  
Epoch 3726/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0017  
Epoch 3727/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0025  
Epoch 3728/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0014  
Epoch 3729/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0016  
Epoch 3730/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0015

Epoch 3731/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0015 - val\_loss: 0.0015  
Epoch 3732/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0015 - val\_loss: 0.0013  
Epoch 3733/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0015 - val\_loss: 0.0012  
Epoch 3734/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0015  
Epoch 3735/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss: 0.0012  
Epoch 3736/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0016  
Epoch 3737/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0015  
Epoch 3738/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0012  
Epoch 3739/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0015  
Epoch 3740/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0016 - val\_loss: 0.0017  
Epoch 3741/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0015  
Epoch 3742/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0015  
Epoch 3743/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0018  
Epoch 3744/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0021  
Epoch 3745/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss: 0.0022  
Epoch 3746/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss: 0.0014

Epoch 3747/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0015 - val\_loss: 0.0020  
Epoch 3748/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0017 - val\_loss: 0.0015  
Epoch 3749/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0015 - val\_loss: 0.0016  
Epoch 3750/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0019  
Epoch 3751/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0016  
Epoch 3752/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss: 0.0017  
Epoch 3753/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0014 - val\_loss: 0.0015  
Epoch 3754/100000  
63/63 [=====] - 0s 6ms/step - loss: 0.0016 - val\_loss: 0.0014  
Epoch 3755/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0016 - val\_loss: 0.0013  
Epoch 3756/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0015 - val\_loss: 0.0016  
Epoch 3757/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0014  
Epoch 3758/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0013 - val\_loss: 0.0014  
Epoch 3759/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0015  
Epoch 3760/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0012  
Epoch 3761/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0012  
Epoch 3762/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0013

Epoch 3763/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss: 0.0012  
Epoch 3764/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0013 - val\_loss: 0.0020  
Epoch 3765/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0015 - val\_loss: 0.0016  
Epoch 3766/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0016  
Epoch 3767/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0013  
Epoch 3768/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0012  
Epoch 3769/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0015 - val\_loss: 0.0013  
Epoch 3770/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0016  
Epoch 3771/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0014  
Epoch 3772/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0013  
Epoch 3773/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss: 0.0013  
Epoch 3774/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0014 - val\_loss: 0.0012  
Epoch 3775/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss: 0.0014  
Epoch 3776/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0013 - val\_loss: 0.0013  
Epoch 3777/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss: 0.0014  
Epoch 3778/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0013 - val\_loss: 0.0014

Epoch 3779/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0014  
Epoch 3780/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0017  
Epoch 3781/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0017  
Epoch 3782/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0017  
Epoch 3783/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0016  
Epoch 3784/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0014  
Epoch 3785/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0014  
Epoch 3786/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0015  
Epoch 3787/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0015  
Epoch 3788/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0016  
Epoch 3789/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0016  
Epoch 3790/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0015 - val\_loss: 0.0013  
Epoch 3791/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0012 - val\_loss: 0.0015  
Epoch 3792/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0014 - val\_loss: 0.0014  
Epoch 3793/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0013  
Epoch 3794/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0015 - val\_loss: 0.0016

Epoch 3795/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0014  
Epoch 3796/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0015  
Epoch 3797/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss: 0.0013  
Epoch 3798/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0018  
Epoch 3799/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0013  
Epoch 3800/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0012  
Epoch 3801/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0013  
Epoch 3802/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0014  
Epoch 3803/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss: 0.0016  
Epoch 3804/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0023  
Epoch 3805/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0016  
Epoch 3806/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0017  
Epoch 3807/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0014  
Epoch 3808/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0017 - val\_loss: 0.0018  
Epoch 3809/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0015  
Epoch 3810/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss: 0.0014

Epoch 3811/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0016 - val\_loss: 0.0017  
Epoch 3812/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0019 - val\_loss: 0.0019  
Epoch 3813/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0017  
Epoch 3814/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0016 - val\_loss: 0.0016  
Epoch 3815/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0015  
Epoch 3816/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0017  
Epoch 3817/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0015  
Epoch 3818/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0016 - val\_loss: 0.0023  
Epoch 3819/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0014  
Epoch 3820/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0015  
Epoch 3821/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0018  
Epoch 3822/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0018  
Epoch 3823/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0016 - val\_loss: 0.0016  
Epoch 3824/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0015  
Epoch 3825/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0017  
Epoch 3826/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0015



Epoch 3827/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0016  
Epoch 3828/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0025  
Epoch 3829/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0023  
Epoch 3830/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0019 - val\_loss: 0.0016  
Epoch 3831/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0020  
Epoch 3832/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0015  
Epoch 3833/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0019  
Epoch 3834/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0017  
Epoch 3835/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0016  
Epoch 3836/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0017 - val\_loss: 0.0017  
Epoch 3837/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0017 - val\_loss: 0.0016  
Epoch 3838/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0016  
Epoch 3839/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0017  
Epoch 3840/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0016  
Epoch 3841/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0016  
Epoch 3842/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0018

Epoch 3843/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0016  
Epoch 3844/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0011  
Epoch 3845/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0014  
Epoch 3846/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0013  
Epoch 3847/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0012  
Epoch 3848/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0013 - val\_loss: 0.0013  
Epoch 3849/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0013 - val\_loss: 0.0010  
Epoch 3850/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0017 - val\_loss: 0.0020  
Epoch 3851/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0031 - val\_loss: 0.0025  
Epoch 3852/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0022  
Epoch 3853/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0023  
Epoch 3854/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0024  
Epoch 3855/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0025  
Epoch 3856/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0024  
Epoch 3857/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0019  
Epoch 3858/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0020 - val\_loss: 0.0022

Epoch 3859/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0022  
Epoch 3860/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0024  
Epoch 3861/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0019  
Epoch 3862/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0018  
Epoch 3863/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0019 - val\_loss: 0.0023  
Epoch 3864/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0019 - val\_loss: 0.0022  
Epoch 3865/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0021  
Epoch 3866/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0019  
Epoch 3867/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0020 - val\_loss: 0.0021  
Epoch 3868/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0021 - val\_loss: 0.0016  
Epoch 3869/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss: 0.0018  
Epoch 3870/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss: 0.0022  
Epoch 3871/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0020  
Epoch 3872/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0017 - val\_loss: 0.0021  
Epoch 3873/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0015  
Epoch 3874/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0019 - val\_loss: 0.0024

Epoch 3875/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0019  
Epoch 3876/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0016  
Epoch 3877/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0025  
Epoch 3878/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0023  
Epoch 3879/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0021  
Epoch 3880/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0019 - val\_loss: 0.0020  
Epoch 3881/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0013  
Epoch 3882/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0015  
Epoch 3883/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0023  
Epoch 3884/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss: 0.0015  
Epoch 3885/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0023 - val\_loss: 0.0023  
Epoch 3886/100000  
63/63 [=====] - 0s 6ms/step - loss: 0.0020 - val\_loss: 0.0014  
Epoch 3887/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0018 - val\_loss: 0.0018  
Epoch 3888/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0019 - val\_loss: 0.0017  
Epoch 3889/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0016  
Epoch 3890/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss: 0.0018

Epoch 3891/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0019 - val\_loss: 0.0015  
Epoch 3892/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0019 - val\_loss: 0.0014  
Epoch 3893/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss: 0.0019  
Epoch 3894/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0016 - val\_loss: 0.0024  
Epoch 3895/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0016  
Epoch 3896/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0019 - val\_loss: 0.0016  
Epoch 3897/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0019 - val\_loss: 0.0019  
Epoch 3898/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0019 - val\_loss: 0.0027  
Epoch 3899/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0019  
Epoch 3900/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0023 - val\_loss: 0.0016  
Epoch 3901/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0022 - val\_loss: 0.0021  
Epoch 3902/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0021 - val\_loss: 0.0023  
Epoch 3903/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0021 - val\_loss: 0.0015  
Epoch 3904/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0021 - val\_loss: 0.0022  
Epoch 3905/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0021 - val\_loss: 0.0021  
Epoch 3906/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0022 - val\_loss: 0.0016

Epoch 3907/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0019 - val\_loss: 0.0021  
Epoch 3908/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0021 - val\_loss: 0.0020  
Epoch 3909/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0018 - val\_loss: 0.0020  
Epoch 3910/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0015 - val\_loss: 0.0015  
Epoch 3911/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss: 0.0020  
Epoch 3912/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0027  
Epoch 3913/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0023  
Epoch 3914/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0017  
Epoch 3915/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0025  
Epoch 3916/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0017  
Epoch 3917/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0012  
Epoch 3918/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0014  
Epoch 3919/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0018  
Epoch 3920/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0016  
Epoch 3921/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0017 - val\_loss: 0.0015  
Epoch 3922/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0016

Epoch 3923/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0013  
Epoch 3924/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0013  
Epoch 3925/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0019  
Epoch 3926/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0018  
Epoch 3927/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0016  
Epoch 3928/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0027  
Epoch 3929/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0019 - val\_loss: 0.0016  
Epoch 3930/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0016 - val\_loss: 0.0014  
Epoch 3931/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0017  
Epoch 3932/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0016  
Epoch 3933/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0015  
Epoch 3934/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0014  
Epoch 3935/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0014 - val\_loss: 0.0013  
Epoch 3936/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss: 0.0013  
Epoch 3937/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0019  
Epoch 3938/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0017 - val\_loss: 0.0015

Epoch 3939/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0014  
Epoch 3940/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0015 - val\_loss: 0.0013  
Epoch 3941/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0018  
Epoch 3942/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0023 - val\_loss: 0.0025  
Epoch 3943/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0023 - val\_loss: 0.0017  
Epoch 3944/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0019  
Epoch 3945/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0014  
Epoch 3946/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0019  
Epoch 3947/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0027  
Epoch 3948/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss: 0.0018  
Epoch 3949/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0016  
Epoch 3950/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0015  
Epoch 3951/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0016  
Epoch 3952/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0014  
Epoch 3953/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0014  
Epoch 3954/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0017 - val\_loss: 0.0014



Epoch 3955/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0019  
Epoch 3956/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0024  
Epoch 3957/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss: 0.0015  
Epoch 3958/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0018  
Epoch 3959/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0015  
Epoch 3960/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0018  
Epoch 3961/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0016  
Epoch 3962/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0018  
Epoch 3963/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0016 - val\_loss: 0.0014  
Epoch 3964/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0014  
Epoch 3965/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0021  
Epoch 3966/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0020  
Epoch 3967/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0014  
Epoch 3968/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0022  
Epoch 3969/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0016  
Epoch 3970/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0017

Epoch 3971/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0014  
Epoch 3972/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0017  
Epoch 3973/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0014  
Epoch 3974/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0015  
Epoch 3975/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0015  
Epoch 3976/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss: 0.0010  
Epoch 3977/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0012 - val\_loss: 0.0014  
Epoch 3978/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss: 0.0012  
Epoch 3979/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0013 - val\_loss: 0.0019  
Epoch 3980/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0012  
Epoch 3981/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0012 - val\_loss: 0.0011  
Epoch 3982/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0013 - val\_loss: 0.0013  
Epoch 3983/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0016  
Epoch 3984/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0016  
Epoch 3985/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 9.7088e-04  
Epoch 3986/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0017

Epoch 3987/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0014

Epoch 3988/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0016 - val\_loss: 0.0022

Epoch 3989/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0022

Epoch 3990/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0017

Epoch 3991/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0015

Epoch 3992/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss: 0.0016

Epoch 3993/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss: 0.0011

Epoch 3994/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0012 - val\_loss: 0.0016

Epoch 3995/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0014

Epoch 3996/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0013

Epoch 3997/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0010

Epoch 3998/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss: 0.0012

Epoch 3999/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss: 0.0013

Epoch 4000/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0013 - val\_loss: 9.7663e-04

Epoch 4001/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0012 - val\_loss: 0.0013

Epoch 4002/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss: 0.0015

Epoch 4003/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0014

Epoch 4004/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss: 0.0015

Epoch 4005/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0014

Epoch 4006/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0015

Epoch 4007/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0013

Epoch 4008/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0012 - val\_loss: 0.0012

Epoch 4009/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 8.9149e-04

Epoch 4010/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss: 0.0015

Epoch 4011/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss: 0.0012

Epoch 4012/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss: 0.0014

Epoch 4013/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0014

Epoch 4014/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0013

Epoch 4015/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0011

Epoch 4016/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0012 - val\_loss: 0.0011

Epoch 4017/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0016

Epoch 4018/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0017

Epoch 4019/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0012

Epoch 4020/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0013

Epoch 4021/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0011

Epoch 4022/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0023

Epoch 4023/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0026

Epoch 4024/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss: 0.0013

Epoch 4025/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0012

Epoch 4026/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss: 0.0013

Epoch 4027/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss: 0.0015

Epoch 4028/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss: 0.0010

Epoch 4029/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss: 0.0010

Epoch 4030/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss: 0.0013

Epoch 4031/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0014 - val\_loss: 0.0014

Epoch 4032/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0019

Epoch 4033/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0023

Epoch 4034/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0013

Epoch 4035/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss: 0.0015  
Epoch 4036/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0022  
Epoch 4037/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0015  
Epoch 4038/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0014 - val\_loss: 0.0012  
Epoch 4039/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0017 - val\_loss: 0.0018  
Epoch 4040/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0017 - val\_loss: 0.0014  
Epoch 4041/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0016 - val\_loss: 0.0015  
Epoch 4042/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0015  
Epoch 4043/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0020 - val\_loss: 0.0016  
Epoch 4044/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0016 - val\_loss: 0.0018  
Epoch 4045/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0019  
Epoch 4046/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss: 0.0014  
Epoch 4047/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0016  
Epoch 4048/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0017 - val\_loss: 0.0013  
Epoch 4049/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss: 0.0016  
Epoch 4050/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0025

Epoch 4051/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0026  
Epoch 4052/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0017  
Epoch 4053/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0019  
Epoch 4054/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0024  
Epoch 4055/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0024  
Epoch 4056/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0017 - val\_loss: 0.0014  
Epoch 4057/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0019  
Epoch 4058/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0018  
Epoch 4059/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0014  
Epoch 4060/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0015  
Epoch 4061/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0016  
Epoch 4062/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0013  
Epoch 4063/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0014  
Epoch 4064/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0016  
Epoch 4065/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0018  
Epoch 4066/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0015

Epoch 4067/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0017 - val\_loss: 0.0021  
Epoch 4068/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss: 0.0016  
Epoch 4069/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0015 - val\_loss: 0.0018  
Epoch 4070/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss: 0.0019  
Epoch 4071/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss: 0.0019  
Epoch 4072/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0026  
Epoch 4073/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0029 - val\_loss: 0.0030  
Epoch 4074/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0028 - val\_loss: 0.0029  
Epoch 4075/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0026  
Epoch 4076/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0026 - val\_loss: 0.0027  
Epoch 4077/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0024 - val\_loss: 0.0019  
Epoch 4078/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss: 0.0020  
Epoch 4079/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0025 - val\_loss: 0.0025  
Epoch 4080/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0029 - val\_loss: 0.0025  
Epoch 4081/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0027 - val\_loss: 0.0024  
Epoch 4082/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0023



Epoch 4083/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0025 - val\_loss: 0.0024

Epoch 4084/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0023 - val\_loss: 0.0021

Epoch 4085/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0023 - val\_loss: 0.0024

Epoch 4086/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0022 - val\_loss: 0.0017

Epoch 4087/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0019 - val\_loss: 0.0022

Epoch 4088/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0024 - val\_loss: 0.0023

Epoch 4089/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0022

Epoch 4090/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0024 - val\_loss: 0.0023

Epoch 4091/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0027 - val\_loss: 0.0041

Epoch 4092/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0036 - val\_loss: 0.0026

Epoch 4093/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0025 - val\_loss: 0.0021

Epoch 4094/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0022 - val\_loss: 0.0020

Epoch 4095/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0023 - val\_loss: 0.0015

Epoch 4096/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0019 - val\_loss: 0.0016

Epoch 4097/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0020 - val\_loss: 0.0022

Epoch 4098/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0021 - val\_loss: 0.0035

Epoch 4099/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0022

Epoch 4100/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0023 - val\_loss: 0.0021

Epoch 4101/100000  
63/63 [=====] - 0s 6ms/step - loss: 0.0022 - val\_loss: 0.0021

Epoch 4102/100000  
63/63 [=====] - 0s 6ms/step - loss: 0.0021 - val\_loss: 0.0020

Epoch 4103/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0019 - val\_loss: 0.0021

Epoch 4104/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0025 - val\_loss: 0.0028

Epoch 4105/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0027 - val\_loss: 0.0022

Epoch 4106/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0024 - val\_loss: 0.0020

Epoch 4107/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0022 - val\_loss: 0.0022

Epoch 4108/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0023 - val\_loss: 0.0017

Epoch 4109/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0023 - val\_loss: 0.0021

Epoch 4110/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss: 0.0019

Epoch 4111/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0019 - val\_loss: 0.0017

Epoch 4112/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0022 - val\_loss: 0.0019

Epoch 4113/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0023 - val\_loss: 0.0023

Epoch 4114/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0025 - val\_loss: 0.0035

Epoch 4115/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0024 - val\_loss: 0.0018  
Epoch 4116/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0021 - val\_loss: 0.0021  
Epoch 4117/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0022 - val\_loss: 0.0021  
Epoch 4118/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0019 - val\_loss: 0.0022  
Epoch 4119/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0022 - val\_loss: 0.0020  
Epoch 4120/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0021 - val\_loss: 0.0025  
Epoch 4121/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0020 - val\_loss: 0.0017  
Epoch 4122/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0021 - val\_loss: 0.0018  
Epoch 4123/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0018  
Epoch 4124/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0020  
Epoch 4125/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0019  
Epoch 4126/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0026  
Epoch 4127/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss: 0.0018  
Epoch 4128/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0016 - val\_loss: 0.0014  
Epoch 4129/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0012  
Epoch 4130/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0019

Epoch 4131/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0017 - val\_loss: 0.0015  
Epoch 4132/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0015 - val\_loss: 0.0016  
Epoch 4133/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0017 - val\_loss: 0.0023  
Epoch 4134/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0022 - val\_loss: 0.0021  
Epoch 4135/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0019 - val\_loss: 0.0020  
Epoch 4136/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0017 - val\_loss: 0.0019  
Epoch 4137/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0016 - val\_loss: 0.0018  
Epoch 4138/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0017  
Epoch 4139/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0014 - val\_loss: 0.0017  
Epoch 4140/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0015 - val\_loss: 0.0018  
Epoch 4141/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0015 - val\_loss: 0.0014  
Epoch 4142/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0015 - val\_loss: 0.0016  
Epoch 4143/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0015 - val\_loss: 0.0014  
Epoch 4144/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0015 - val\_loss: 0.0014  
Epoch 4145/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0015 - val\_loss: 0.0013  
Epoch 4146/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0013

Epoch 4147/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss: 0.0013  
Epoch 4148/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0013  
Epoch 4149/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0013  
Epoch 4150/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0013  
Epoch 4151/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0017  
Epoch 4152/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0012  
Epoch 4153/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0013  
Epoch 4154/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0010  
Epoch 4155/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0012 - val\_loss: 0.0011  
Epoch 4156/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0012 - val\_loss: 0.0013  
Epoch 4157/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0014 - val\_loss: 0.0015  
Epoch 4158/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0012 - val\_loss: 8.6718e-04  
Epoch 4159/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0012  
Epoch 4160/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0013  
Epoch 4161/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0011  
Epoch 4162/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0011

Epoch 4163/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0011

Epoch 4164/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss: 0.0010

Epoch 4165/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss: 0.0012

Epoch 4166/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss: 0.0014

Epoch 4167/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0013

Epoch 4168/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0011

Epoch 4169/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0013 - val\_loss: 0.0011

Epoch 4170/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 9.7555e-04

Epoch 4171/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0013 - val\_loss: 0.0014

Epoch 4172/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0015 - val\_loss: 0.0016

Epoch 4173/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0014 - val\_loss: 0.0012

Epoch 4174/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0014 - val\_loss: 0.0018

Epoch 4175/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0016 - val\_loss: 0.0012

Epoch 4176/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0014 - val\_loss: 0.0013

Epoch 4177/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0013 - val\_loss: 0.0014

Epoch 4178/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0012 - val\_loss: 0.0016

Epoch 4179/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0014 - val\_loss: 0.0020  
Epoch 4180/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0016 - val\_loss: 0.0014  
Epoch 4181/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0014 - val\_loss: 0.0011  
Epoch 4182/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0016 - val\_loss: 0.0012  
Epoch 4183/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0016  
Epoch 4184/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0015  
Epoch 4185/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0013  
Epoch 4186/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0011  
Epoch 4187/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0016  
Epoch 4188/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0015  
Epoch 4189/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0014  
Epoch 4190/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0014  
Epoch 4191/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0015 - val\_loss: 0.0015  
Epoch 4192/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0012  
Epoch 4193/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0015  
Epoch 4194/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0011

Epoch 4195/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0012  
Epoch 4196/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0013 - val\_loss: 0.0011  
Epoch 4197/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0016  
Epoch 4198/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0013  
Epoch 4199/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0016  
Epoch 4200/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0017  
Epoch 4201/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0017  
Epoch 4202/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0016  
Epoch 4203/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0014 - val\_loss: 0.0012  
Epoch 4204/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0015 - val\_loss: 0.0016  
Epoch 4205/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0014 - val\_loss: 0.0017  
Epoch 4206/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0013  
Epoch 4207/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0015 - val\_loss: 0.0014  
Epoch 4208/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0013  
Epoch 4209/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0015  
Epoch 4210/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0012 - val\_loss: 0.0011



Epoch 4211/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss: 0.0013  
Epoch 4212/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0014 - val\_loss: 0.0014  
Epoch 4213/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0014  
Epoch 4214/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0013 - val\_loss: 0.0012  
Epoch 4215/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0015 - val\_loss: 0.0015  
Epoch 4216/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0015 - val\_loss: 0.0011  
Epoch 4217/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0013 - val\_loss: 0.0011  
Epoch 4218/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0015  
Epoch 4219/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0015 - val\_loss: 0.0014  
Epoch 4220/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0014 - val\_loss: 0.0011  
Epoch 4221/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0013 - val\_loss: 0.0014  
Epoch 4222/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0013 - val\_loss: 0.0012  
Epoch 4223/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0013 - val\_loss: 0.0013  
Epoch 4224/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0013 - val\_loss: 0.0013  
Epoch 4225/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0012 - val\_loss: 0.0014  
Epoch 4226/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0012

Epoch 4227/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0014  
Epoch 4228/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0012  
Epoch 4229/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0011  
Epoch 4230/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0013  
Epoch 4231/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss: 0.0013  
Epoch 4232/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0014  
Epoch 4233/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0016 - val\_loss: 0.0015  
Epoch 4234/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0011  
Epoch 4235/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss: 0.0012  
Epoch 4236/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss: 0.0015  
Epoch 4237/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss: 0.0012  
Epoch 4238/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0013  
Epoch 4239/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0016  
Epoch 4240/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0011  
Epoch 4241/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0019  
Epoch 4242/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0016 - val\_loss: 0.0013

Epoch 4243/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0027  
Epoch 4244/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0013  
Epoch 4245/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0013 - val\_loss: 0.0017  
Epoch 4246/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0012 - val\_loss: 0.0015  
Epoch 4247/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0013 - val\_loss: 0.0015  
Epoch 4248/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0015  
Epoch 4249/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0013 - val\_loss: 0.0016  
Epoch 4250/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0013 - val\_loss: 0.0018  
Epoch 4251/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0014 - val\_loss: 0.0013  
Epoch 4252/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0012 - val\_loss: 0.0012  
Epoch 4253/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss: 0.0018  
Epoch 4254/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0014 - val\_loss: 0.0012  
Epoch 4255/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss: 0.0013  
Epoch 4256/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss: 0.0015  
Epoch 4257/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0013 - val\_loss: 0.0011  
Epoch 4258/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0012

Epoch 4259/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0014 - val\_loss: 0.0027  
Epoch 4260/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0015 - val\_loss: 0.0016  
Epoch 4261/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0014 - val\_loss: 0.0015  
Epoch 4262/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0013 - val\_loss: 0.0017  
Epoch 4263/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0017  
Epoch 4264/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0013 - val\_loss: 0.0017  
Epoch 4265/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0013 - val\_loss: 0.0014  
Epoch 4266/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0015  
Epoch 4267/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0013 - val\_loss: 0.0015  
Epoch 4268/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0020 - val\_loss: 0.0022  
Epoch 4269/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0022  
Epoch 4270/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0018  
Epoch 4271/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0021  
Epoch 4272/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0019  
Epoch 4273/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0029  
Epoch 4274/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0017 - val\_loss: 0.0024

Epoch 4275/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0023  
Epoch 4276/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0017 - val\_loss: 0.0021  
Epoch 4277/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0020 - val\_loss: 0.0023  
Epoch 4278/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0018  
Epoch 4279/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0018  
Epoch 4280/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0021  
Epoch 4281/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0021  
Epoch 4282/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0018  
Epoch 4283/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0022  
Epoch 4284/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0016  
Epoch 4285/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0021  
Epoch 4286/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0019  
Epoch 4287/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss: 0.0015  
Epoch 4288/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0020  
Epoch 4289/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0019  
Epoch 4290/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0020

Epoch 4291/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0020  
Epoch 4292/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0017  
Epoch 4293/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0018  
Epoch 4294/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0017  
Epoch 4295/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0015 - val\_loss: 0.0018  
Epoch 4296/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0014 - val\_loss: 0.0022  
Epoch 4297/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0016  
Epoch 4298/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0020  
Epoch 4299/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0020  
Epoch 4300/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0017 - val\_loss: 0.0015  
Epoch 4301/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0017  
Epoch 4302/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0026  
Epoch 4303/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0027  
Epoch 4304/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0014  
Epoch 4305/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0020  
Epoch 4306/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0015

Epoch 4307/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0013  
Epoch 4308/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0017  
Epoch 4309/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0017 - val\_loss: 0.0015  
Epoch 4310/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0015  
Epoch 4311/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0021  
Epoch 4312/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0018  
Epoch 4313/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss: 0.0012  
Epoch 4314/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0012  
Epoch 4315/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0012  
Epoch 4316/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0017  
Epoch 4317/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0014  
Epoch 4318/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0016  
Epoch 4319/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0016  
Epoch 4320/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0016  
Epoch 4321/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0013  
Epoch 4322/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0016

Epoch 4323/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0013  
Epoch 4324/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0017  
Epoch 4325/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0015  
Epoch 4326/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0019  
Epoch 4327/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0014 - val\_loss: 0.0029  
Epoch 4328/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0022  
Epoch 4329/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0021 - val\_loss: 0.0025  
Epoch 4330/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0018  
Epoch 4331/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0021  
Epoch 4332/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0022  
Epoch 4333/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0028 - val\_loss: 0.0026  
Epoch 4334/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0019  
Epoch 4335/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0018  
Epoch 4336/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0016 - val\_loss: 0.0017  
Epoch 4337/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0017  
Epoch 4338/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0017



Epoch 4339/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0025 - val\_loss: 0.0025  
Epoch 4340/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0025  
Epoch 4341/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0022  
Epoch 4342/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0018  
Epoch 4343/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0017 - val\_loss: 0.0021  
Epoch 4344/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0020  
Epoch 4345/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0023  
Epoch 4346/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0016  
Epoch 4347/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0017  
Epoch 4348/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0028  
Epoch 4349/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0015  
Epoch 4350/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0017  
Epoch 4351/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0017  
Epoch 4352/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0027  
Epoch 4353/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0022  
Epoch 4354/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0019 - val\_loss: 0.0019

Epoch 4355/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0018  
Epoch 4356/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0016  
Epoch 4357/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0013  
Epoch 4358/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0020  
Epoch 4359/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0015  
Epoch 4360/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0019  
Epoch 4361/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0017  
Epoch 4362/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0015  
Epoch 4363/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0016  
Epoch 4364/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0013  
Epoch 4365/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0014 - val\_loss: 0.0019  
Epoch 4366/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0013  
Epoch 4367/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0012  
Epoch 4368/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0013  
Epoch 4369/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0016  
Epoch 4370/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0012

Epoch 4371/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0022  
Epoch 4372/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0017 - val\_loss: 0.0021  
Epoch 4373/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0014  
Epoch 4374/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0028  
Epoch 4375/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0018  
Epoch 4376/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0020  
Epoch 4377/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0018  
Epoch 4378/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0019  
Epoch 4379/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0019  
Epoch 4380/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0018  
Epoch 4381/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0023  
Epoch 4382/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0015 - val\_loss: 0.0014  
Epoch 4383/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0022  
Epoch 4384/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0019  
Epoch 4385/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0023  
Epoch 4386/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0029

Epoch 4387/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0022 - val\_loss: 0.0016  
Epoch 4388/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0019  
Epoch 4389/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0017  
Epoch 4390/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0021  
Epoch 4391/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0016  
Epoch 4392/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0012  
Epoch 4393/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0016  
Epoch 4394/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0015  
Epoch 4395/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0015  
Epoch 4396/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0016  
Epoch 4397/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0016  
Epoch 4398/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0022  
Epoch 4399/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0013  
Epoch 4400/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0016  
Epoch 4401/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0018  
Epoch 4402/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0013

Epoch 4403/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0017  
Epoch 4404/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0021  
Epoch 4405/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0020 - val\_loss: 0.0023  
Epoch 4406/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0024  
Epoch 4407/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0017  
Epoch 4408/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0016  
Epoch 4409/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0023  
Epoch 4410/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0015  
Epoch 4411/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0015  
Epoch 4412/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0011  
Epoch 4413/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0015  
Epoch 4414/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0011  
Epoch 4415/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0013  
Epoch 4416/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0013  
Epoch 4417/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0014 - val\_loss: 0.0017  
Epoch 4418/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0014 - val\_loss: 0.0020

Epoch 4419/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0016 - val\_loss: 0.0014  
Epoch 4420/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0016 - val\_loss: 0.0020  
Epoch 4421/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0016 - val\_loss: 0.0014  
Epoch 4422/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0015 - val\_loss: 0.0021  
Epoch 4423/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0013 - val\_loss: 0.0012  
Epoch 4424/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0016 - val\_loss: 0.0013  
Epoch 4425/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0016 - val\_loss: 0.0015  
Epoch 4426/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0015 - val\_loss: 0.0011  
Epoch 4427/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0014 - val\_loss: 0.0012  
Epoch 4428/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0013 - val\_loss: 0.0013  
Epoch 4429/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0012 - val\_loss: 0.0011  
Epoch 4430/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0012 - val\_loss: 8.5275e-04  
Epoch 4431/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0014  
Epoch 4432/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0015 - val\_loss: 0.0012  
Epoch 4433/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0017 - val\_loss: 0.0021  
Epoch 4434/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0019 - val\_loss: 0.0021

Epoch 4435/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss: 0.0020  
Epoch 4436/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0019 - val\_loss: 0.0016  
Epoch 4437/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0017 - val\_loss: 0.0019  
Epoch 4438/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0014 - val\_loss: 0.0012  
Epoch 4439/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0014 - val\_loss: 0.0013  
Epoch 4440/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0013 - val\_loss: 0.0014  
Epoch 4441/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss: 0.0016  
Epoch 4442/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0014 - val\_loss: 0.0012  
Epoch 4443/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0013 - val\_loss: 0.0011  
Epoch 4444/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss: 9.6194e-04  
Epoch 4445/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0015  
Epoch 4446/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0014 - val\_loss: 0.0017  
Epoch 4447/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0014 - val\_loss: 0.0015  
Epoch 4448/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0015 - val\_loss: 0.0013  
Epoch 4449/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0016 - val\_loss: 0.0013  
Epoch 4450/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0014 - val\_loss: 0.0011

Epoch 4451/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0014 - val\_loss: 0.0013  
Epoch 4452/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0012 - val\_loss: 0.0015  
Epoch 4453/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0010 - val\_loss: 0.0010  
Epoch 4454/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0012 - val\_loss: 0.0015  
Epoch 4455/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0013  
Epoch 4456/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss: 0.0013  
Epoch 4457/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0014 - val\_loss: 0.0013  
Epoch 4458/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0013 - val\_loss: 0.0013  
Epoch 4459/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0015  
Epoch 4460/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0011  
Epoch 4461/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0020  
Epoch 4462/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0021 - val\_loss: 0.0026  
Epoch 4463/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 0.0016  
Epoch 4464/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss: 0.0016  
Epoch 4465/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0019  
Epoch 4466/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0014



Epoch 4467/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0014 - val\_loss: 0.0017  
Epoch 4468/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0014  
Epoch 4469/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0013 - val\_loss: 0.0011  
Epoch 4470/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss: 0.0013  
Epoch 4471/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0012 - val\_loss: 0.0010  
Epoch 4472/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0012 - val\_loss: 0.0010  
Epoch 4473/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss: 0.0012  
Epoch 4474/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss: 0.0011  
Epoch 4475/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0012 - val\_loss: 0.0015  
Epoch 4476/100000  
63/63 [=====] - 0s 4ms/step - loss: 9.9436e-04 - val\_loss: 0.0014  
Epoch 4477/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0013 - val\_loss: 0.0010  
Epoch 4478/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss: 0.0014  
Epoch 4479/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss: 0.0012  
Epoch 4480/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0010 - val\_loss: 0.0012  
Epoch 4481/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss: 0.0010  
Epoch 4482/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0010 - val\_loss: 0.0012

Epoch 4483/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0013 - val\_loss: 0.0011

Epoch 4484/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0012 - val\_loss: 0.0012

Epoch 4485/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss: 0.0013

Epoch 4486/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss: 0.0016

Epoch 4487/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss: 0.0012

Epoch 4488/100000  
63/63 [=====] - 0s 4ms/step - loss: 9.9854e-04 - val\_loss: 0.0014

Epoch 4489/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0012 - val\_loss: 0.0011

Epoch 4490/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss: 0.0011

Epoch 4491/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0012 - val\_loss: 0.0012

Epoch 4492/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss: 0.0013

Epoch 4493/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss: 0.0010

Epoch 4494/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0010 - val\_loss: 9.1261e-04

Epoch 4495/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss: 0.0011

Epoch 4496/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss: 0.0013

Epoch 4497/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0012 - val\_loss: 9.5763e-04

Epoch 4498/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0012 - val\_loss: 0.0012

Epoch 4499/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0013 - val\_loss: 0.0012

Epoch 4500/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss: 0.0012

Epoch 4501/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss: 0.0011

Epoch 4502/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.8653e-04 - val\_loss: 0.0012

Epoch 4503/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0010 - val\_loss: 0.0018

Epoch 4504/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss: 0.0012

Epoch 4505/100000  
63/63 [=====] - 0s 4ms/step - loss: 9.8889e-04 - val\_loss: 9.5212e-04

Epoch 4506/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.9450e-04 - val\_loss: 0.0011

Epoch 4507/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.7897e-04 - val\_loss: 0.0013

Epoch 4508/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0013 - val\_loss: 0.0015

Epoch 4509/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0010 - val\_loss: 9.6770e-04

Epoch 4510/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0013 - val\_loss: 0.0011

Epoch 4511/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0012 - val\_loss: 0.0014

Epoch 4512/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss: 0.0013

Epoch 4513/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0012 - val\_loss: 0.0012

Epoch 4514/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0013

Epoch 4515/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0013

Epoch 4516/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss: 0.0012

Epoch 4517/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0010 - val\_loss: 0.0011

Epoch 4518/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss: 0.0011

Epoch 4519/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0012 - val\_loss: 9.1562e-04

Epoch 4520/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss: 0.0011

Epoch 4521/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss: 9.8230e-04

Epoch 4522/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0017 - val\_loss: 0.0016

Epoch 4523/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0013 - val\_loss: 0.0011

Epoch 4524/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0010

Epoch 4525/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss: 0.0010

Epoch 4526/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss: 0.0011

Epoch 4527/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss: 9.2478e-04

Epoch 4528/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0010 - val\_loss: 0.0012

Epoch 4529/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss: 0.0012

Epoch 4530/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss: 0.0014

Epoch 4531/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss:  
0.0017  
Epoch 4532/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0013 - val\_loss:  
0.0011  
Epoch 4533/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss:  
0.0012  
Epoch 4534/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss:  
0.0013  
Epoch 4535/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss:  
0.0022  
Epoch 4536/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss:  
0.0015  
Epoch 4537/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss:  
0.0014  
Epoch 4538/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss:  
0.0016  
Epoch 4539/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss:  
0.0011  
Epoch 4540/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss:  
0.0017  
Epoch 4541/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0014 - val\_loss:  
0.0013  
Epoch 4542/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss:  
0.0014  
Epoch 4543/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss:  
0.0011  
Epoch 4544/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss:  
0.0015  
Epoch 4545/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss:  
0.0017  
Epoch 4546/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss:  
0.0012

Epoch 4547/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss: 0.0016  
Epoch 4548/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss: 0.0013  
Epoch 4549/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0016 - val\_loss: 0.0016  
Epoch 4550/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0015 - val\_loss: 0.0015  
Epoch 4551/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0013  
Epoch 4552/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0013  
Epoch 4553/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0013 - val\_loss: 0.0015  
Epoch 4554/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss: 0.0012  
Epoch 4555/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0016 - val\_loss: 0.0014  
Epoch 4556/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0014 - val\_loss: 0.0013  
Epoch 4557/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0015 - val\_loss: 0.0013  
Epoch 4558/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0013  
Epoch 4559/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0016 - val\_loss: 0.0015  
Epoch 4560/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0015  
Epoch 4561/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0012  
Epoch 4562/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0014

Epoch 4563/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0014 - val\_loss: 0.0013  
Epoch 4564/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss: 0.0011  
Epoch 4565/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0010 - val\_loss: 0.0013  
Epoch 4566/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0014  
Epoch 4567/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0012  
Epoch 4568/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0014 - val\_loss: 0.0011  
Epoch 4569/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0012 - val\_loss: 0.0014  
Epoch 4570/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss: 0.0014  
Epoch 4571/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0012  
Epoch 4572/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0012  
Epoch 4573/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0013 - val\_loss: 0.0011  
Epoch 4574/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss: 0.0010  
Epoch 4575/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss: 0.0011  
Epoch 4576/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss: 0.0012  
Epoch 4577/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss: 9.4050e-04  
Epoch 4578/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0012 - val\_loss: 0.0011

Epoch 4579/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0016 - val\_loss:  
0.0016  
Epoch 4580/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss:  
0.0015  
Epoch 4581/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0012 - val\_loss:  
0.0012  
Epoch 4582/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss:  
0.0011  
Epoch 4583/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss:  
0.0015  
Epoch 4584/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss:  
0.0014  
Epoch 4585/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0013 - val\_loss:  
0.0013  
Epoch 4586/100000  
63/63 [=====] - 0s 4ms/step - loss: 9.8152e-04 -  
val\_loss: 0.0011  
Epoch 4587/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss:  
0.0011  
Epoch 4588/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss:  
0.0012  
Epoch 4589/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss:  
0.0015  
Epoch 4590/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss:  
0.0010  
Epoch 4591/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0012 - val\_loss:  
0.0011  
Epoch 4592/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0013 - val\_loss:  
0.0013  
Epoch 4593/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss:  
0.0013  
Epoch 4594/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss:  
0.0011



Epoch 4595/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss: 0.0010

Epoch 4596/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.1679e-04 - val\_loss: 9.1463e-04

Epoch 4597/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss: 9.3632e-04

Epoch 4598/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0012 - val\_loss: 9.9789e-04

Epoch 4599/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss: 0.0011

Epoch 4600/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0010 - val\_loss: 0.0014

Epoch 4601/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0012 - val\_loss: 0.0010

Epoch 4602/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0012 - val\_loss: 0.0013

Epoch 4603/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0013 - val\_loss: 0.0012

Epoch 4604/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.7382e-04 - val\_loss: 0.0011

Epoch 4605/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss: 0.0012

Epoch 4606/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0014 - val\_loss: 0.0011

Epoch 4607/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0010 - val\_loss: 0.0011

Epoch 4608/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.8721e-04 - val\_loss: 0.0013

Epoch 4609/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss: 0.0013

Epoch 4610/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss: 0.0012

Epoch 4611/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0010 - val\_loss: 9.0602e-04

Epoch 4612/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0010 - val\_loss: 0.0013

Epoch 4613/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss: 0.0010

Epoch 4614/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.5066e-04 - val\_loss: 9.9800e-04

Epoch 4615/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss: 0.0011

Epoch 4616/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0010 - val\_loss: 0.0012

Epoch 4617/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss: 8.3237e-04

Epoch 4618/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss: 9.5602e-04

Epoch 4619/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss: 0.0015

Epoch 4620/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.6179e-04 - val\_loss: 0.0015

Epoch 4621/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0024

Epoch 4622/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0017 - val\_loss: 0.0019

Epoch 4623/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0016 - val\_loss: 0.0014

Epoch 4624/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0010

Epoch 4625/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0010 - val\_loss: 0.0010

Epoch 4626/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss: 0.0011

Epoch 4627/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss: 0.0012

Epoch 4628/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss: 0.0017

Epoch 4629/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0013

Epoch 4630/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0010 - val\_loss: 0.0012

Epoch 4631/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0012

Epoch 4632/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0034

Epoch 4633/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss: 0.0015

Epoch 4634/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0014 - val\_loss: 0.0014

Epoch 4635/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0023 - val\_loss: 0.0021

Epoch 4636/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss: 0.0012

Epoch 4637/100000  
63/63 [=====] - 0s 4ms/step - loss: 9.7256e-04 - val\_loss: 9.2537e-04

Epoch 4638/100000  
63/63 [=====] - 0s 4ms/step - loss: 8.0386e-04 - val\_loss: 0.0012

Epoch 4639/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 9.9804e-04

Epoch 4640/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.1851e-04 - val\_loss: 8.4816e-04

Epoch 4641/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.7229e-04 - val\_loss: 9.7924e-04

Epoch 4642/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0010 - val\_loss: 0.0010

Epoch 4643/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss: 0.0012

Epoch 4644/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.0647e-04 - val\_loss: 8.9373e-04

Epoch 4645/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.9943e-04 - val\_loss: 0.0011

Epoch 4646/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.6123e-04 - val\_loss: 9.6670e-04

Epoch 4647/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss: 0.0011

Epoch 4648/100000  
63/63 [=====] - 0s 4ms/step - loss: 9.6247e-04 - val\_loss: 9.0794e-04

Epoch 4649/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss: 0.0010

Epoch 4650/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss: 0.0014

Epoch 4651/100000  
63/63 [=====] - 0s 4ms/step - loss: 8.8419e-04 - val\_loss: 0.0012

Epoch 4652/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.6525e-04 - val\_loss: 0.0012

Epoch 4653/100000  
63/63 [=====] - 0s 4ms/step - loss: 9.8435e-04 - val\_loss: 0.0010

Epoch 4654/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.5805e-04 - val\_loss: 0.0011

Epoch 4655/100000  
63/63 [=====] - 0s 4ms/step - loss: 8.5913e-04 - val\_loss: 9.6161e-04

Epoch 4656/100000  
63/63 [=====] - 0s 3ms/step - loss: 7.9423e-04 - val\_loss: 9.5258e-04

Epoch 4657/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.9985e-04 - val\_loss: 8.6270e-04

Epoch 4658/100000  
63/63 [=====] - 0s 4ms/step - loss: 8.0129e-04 - val\_loss: 0.0010

Epoch 4659/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss: 0.0010

Epoch 4660/100000  
63/63 [=====] - 0s 4ms/step - loss: 8.9134e-04 - val\_loss: 9.1670e-04

Epoch 4661/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss: 0.0013

Epoch 4662/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss: 9.8752e-04

Epoch 4663/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.1451e-04 - val\_loss: 9.0526e-04

Epoch 4664/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.2208e-04 - val\_loss: 8.5566e-04

Epoch 4665/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0013 - val\_loss: 0.0010

Epoch 4666/100000  
63/63 [=====] - 0s 4ms/step - loss: 8.6548e-04 - val\_loss: 0.0010

Epoch 4667/100000  
63/63 [=====] - 0s 4ms/step - loss: 9.1727e-04 - val\_loss: 0.0013

Epoch 4668/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0012 - val\_loss: 0.0018

Epoch 4669/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0014 - val\_loss: 0.0010

Epoch 4670/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0010 - val\_loss: 0.0013

Epoch 4671/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0012 - val\_loss: 0.0023

Epoch 4672/100000  
63/63 [=====] - 0s 6ms/step - loss: 0.0016 - val\_loss: 0.0014

Epoch 4673/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0012 - val\_loss: 0.0019

Epoch 4674/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0017 - val\_loss: 0.0018

Epoch 4675/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 9.8535e-04

Epoch 4676/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0012 - val\_loss: 0.0014

Epoch 4677/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss: 0.0013

Epoch 4678/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0014 - val\_loss: 0.0011

Epoch 4679/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss: 8.0732e-04

Epoch 4680/100000  
63/63 [=====] - 0s 4ms/step - loss: 9.8206e-04 - val\_loss: 7.6706e-04

Epoch 4681/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss: 0.0017

Epoch 4682/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss: 0.0012

Epoch 4683/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0012

Epoch 4684/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss: 0.0012

Epoch 4685/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss: 0.0014

Epoch 4686/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss: 0.0016

Epoch 4687/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0020

Epoch 4688/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0015

Epoch 4689/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0014 - val\_loss: 0.0017

Epoch 4690/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0013

Epoch 4691/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0019  
Epoch 4692/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss: 0.0012  
Epoch 4693/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0010 - val\_loss: 0.0014  
Epoch 4694/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss: 0.0012  
Epoch 4695/100000  
63/63 [=====] - 0s 4ms/step - loss: 9.7166e-04 - val\_loss: 0.0012  
Epoch 4696/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0010 - val\_loss: 0.0014  
Epoch 4697/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss: 0.0013  
Epoch 4698/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0012 - val\_loss: 0.0013  
Epoch 4699/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.6099e-04 - val\_loss: 0.0011  
Epoch 4700/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.8896e-04 - val\_loss: 9.7803e-04  
Epoch 4701/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.8091e-04 - val\_loss: 0.0010  
Epoch 4702/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0010 - val\_loss: 0.0011  
Epoch 4703/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss: 8.6746e-04  
Epoch 4704/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss: 0.0010  
Epoch 4705/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss: 0.0026  
Epoch 4706/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 9.4613e-04

Epoch 4707/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0012 - val\_loss: 0.0011

Epoch 4708/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0010 - val\_loss: 9.2471e-04

Epoch 4709/100000  
63/63 [=====] - 0s 4ms/step - loss: 8.3147e-04 - val\_loss: 9.2210e-04

Epoch 4710/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.3604e-04 - val\_loss: 9.2921e-04

Epoch 4711/100000  
63/63 [=====] - 0s 3ms/step - loss: 7.9672e-04 - val\_loss: 8.1687e-04

Epoch 4712/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.1991e-04 - val\_loss: 0.0010

Epoch 4713/100000  
63/63 [=====] - 0s 4ms/step - loss: 8.9232e-04 - val\_loss: 0.0015

Epoch 4714/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0010 - val\_loss: 8.2749e-04

Epoch 4715/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.8131e-04 - val\_loss: 9.9831e-04

Epoch 4716/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.5943e-04 - val\_loss: 0.0011

Epoch 4717/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0010 - val\_loss: 0.0012

Epoch 4718/100000  
63/63 [=====] - 0s 4ms/step - loss: 7.7649e-04 - val\_loss: 0.0013

Epoch 4719/100000  
63/63 [=====] - 0s 4ms/step - loss: 9.0621e-04 - val\_loss: 9.5300e-04

Epoch 4720/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0010 - val\_loss: 0.0012

Epoch 4721/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0010 - val\_loss: 0.0012

Epoch 4722/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss: 0.0012



Epoch 4723/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss: 9.3362e-04

Epoch 4724/100000  
63/63 [=====] - 0s 4ms/step - loss: 9.4904e-04 - val\_loss: 8.3987e-04

Epoch 4725/100000  
63/63 [=====] - 0s 5ms/step - loss: 9.1457e-04 - val\_loss: 9.6887e-04

Epoch 4726/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0010 - val\_loss: 0.0013

Epoch 4727/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0012 - val\_loss: 0.0026

Epoch 4728/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss: 0.0025

Epoch 4729/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0015 - val\_loss: 0.0024

Epoch 4730/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0019

Epoch 4731/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0024

Epoch 4732/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0022

Epoch 4733/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0014 - val\_loss: 0.0020

Epoch 4734/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0019

Epoch 4735/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0019

Epoch 4736/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0026

Epoch 4737/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0014 - val\_loss: 0.0021

Epoch 4738/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0024

Epoch 4739/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0019  
Epoch 4740/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0014 - val\_loss: 0.0022  
Epoch 4741/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0023  
Epoch 4742/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss: 0.0023  
Epoch 4743/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss: 0.0024  
Epoch 4744/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss: 0.0023  
Epoch 4745/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss: 0.0017  
Epoch 4746/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0018  
Epoch 4747/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0018  
Epoch 4748/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss: 0.0021  
Epoch 4749/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss: 0.0022  
Epoch 4750/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss: 0.0023  
Epoch 4751/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss: 0.0021  
Epoch 4752/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss: 0.0022  
Epoch 4753/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0022  
Epoch 4754/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss: 0.0022

Epoch 4755/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0012 - val\_loss: 0.0021  
Epoch 4756/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss: 0.0021  
Epoch 4757/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss: 0.0016  
Epoch 4758/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0013 - val\_loss: 0.0023  
Epoch 4759/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0020  
Epoch 4760/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss: 0.0020  
Epoch 4761/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss: 0.0025  
Epoch 4762/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0010 - val\_loss: 0.0017  
Epoch 4763/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss: 0.0018  
Epoch 4764/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss: 0.0019  
Epoch 4765/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss: 0.0023  
Epoch 4766/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0025  
Epoch 4767/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0012 - val\_loss: 0.0020  
Epoch 4768/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0010 - val\_loss: 0.0021  
Epoch 4769/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0010 - val\_loss: 0.0022  
Epoch 4770/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss: 0.0021

Epoch 4771/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss: 0.0019  
Epoch 4772/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.8932e-04 - val\_loss: 0.0020  
Epoch 4773/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0010 - val\_loss: 0.0020  
Epoch 4774/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss: 0.0018  
Epoch 4775/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0014 - val\_loss: 0.0018  
Epoch 4776/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss: 0.0026  
Epoch 4777/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0014  
Epoch 4778/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0021  
Epoch 4779/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss: 0.0022  
Epoch 4780/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0012 - val\_loss: 0.0028  
Epoch 4781/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0019  
Epoch 4782/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0019 - val\_loss: 0.0016  
Epoch 4783/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss: 0.0019  
Epoch 4784/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0021  
Epoch 4785/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss: 0.0020  
Epoch 4786/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0010 - val\_loss: 0.0016

Epoch 4787/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0010 - val\_loss: 0.0018

Epoch 4788/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss: 0.0018

Epoch 4789/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0010 - val\_loss: 0.0018

Epoch 4790/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0010 - val\_loss: 0.0020

Epoch 4791/100000  
63/63 [=====] - 0s 5ms/step - loss: 9.5509e-04 - val\_loss: 0.0021

Epoch 4792/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0013 - val\_loss: 0.0013

Epoch 4793/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss: 0.0014

Epoch 4794/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0013 - val\_loss: 0.0020

Epoch 4795/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss: 0.0018

Epoch 4796/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.0015e-04 - val\_loss: 0.0018

Epoch 4797/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0010 - val\_loss: 0.0021

Epoch 4798/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss: 0.0014

Epoch 4799/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss: 0.0021

Epoch 4800/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0010 - val\_loss: 0.0018

Epoch 4801/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0011

Epoch 4802/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0012

Epoch 4803/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0014

Epoch 4804/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0015

Epoch 4805/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0010

Epoch 4806/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0018

Epoch 4807/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0011

Epoch 4808/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss: 7.7562e-04

Epoch 4809/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0013 - val\_loss: 0.0014

Epoch 4810/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0012 - val\_loss: 0.0012

Epoch 4811/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss: 0.0019

Epoch 4812/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss: 0.0019

Epoch 4813/100000  
63/63 [=====] - 0s 4ms/step - loss: 9.9498e-04 - val\_loss: 0.0018

Epoch 4814/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.9029e-04 - val\_loss: 0.0018

Epoch 4815/100000  
63/63 [=====] - 0s 4ms/step - loss: 9.2063e-04 - val\_loss: 0.0020

Epoch 4816/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss: 0.0027

Epoch 4817/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss: 0.0019

Epoch 4818/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0012 - val\_loss: 0.0015

Epoch 4819/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0013 - val\_loss: 0.0018  
Epoch 4820/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss: 0.0020  
Epoch 4821/100000  
63/63 [=====] - 0s 4ms/step - loss: 9.1251e-04 - val\_loss: 0.0019  
Epoch 4822/100000  
63/63 [=====] - 0s 5ms/step - loss: 9.4672e-04 - val\_loss: 0.0015  
Epoch 4823/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0012 - val\_loss: 0.0017  
Epoch 4824/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.4779e-04 - val\_loss: 0.0015  
Epoch 4825/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.5422e-04 - val\_loss: 0.0019  
Epoch 4826/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0010 - val\_loss: 0.0019  
Epoch 4827/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.9956e-04 - val\_loss: 0.0018  
Epoch 4828/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss: 0.0015  
Epoch 4829/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0010 - val\_loss: 0.0015  
Epoch 4830/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.2648e-04 - val\_loss: 0.0019  
Epoch 4831/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss: 0.0015  
Epoch 4832/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.8619e-04 - val\_loss: 0.0016  
Epoch 4833/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0012  
Epoch 4834/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0014

Epoch 4835/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0013 - val\_loss: 9.7487e-04

Epoch 4836/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss: 0.0012

Epoch 4837/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0010 - val\_loss: 8.4025e-04

Epoch 4838/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0010 - val\_loss: 0.0017

Epoch 4839/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0010 - val\_loss: 9.3447e-04

Epoch 4840/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss: 0.0012

Epoch 4841/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss: 8.3252e-04

Epoch 4842/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss: 9.3503e-04

Epoch 4843/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss: 8.4861e-04

Epoch 4844/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss: 0.0016

Epoch 4845/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0012 - val\_loss: 8.9119e-04

Epoch 4846/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0012 - val\_loss: 8.5551e-04

Epoch 4847/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0010 - val\_loss: 8.8634e-04

Epoch 4848/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0010 - val\_loss: 0.0012

Epoch 4849/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0010 - val\_loss: 8.2874e-04

Epoch 4850/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss: 0.0024



Epoch 4851/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss: 0.0015

Epoch 4852/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0010 - val\_loss: 0.0017

Epoch 4853/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 9.5011e-04

Epoch 4854/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0013

Epoch 4855/100000  
63/63 [=====] - 0s 4ms/step - loss: 9.2459e-04 - val\_loss: 8.9737e-04

Epoch 4856/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss: 0.0011

Epoch 4857/100000  
63/63 [=====] - 0s 4ms/step - loss: 9.8989e-04 - val\_loss: 0.0013

Epoch 4858/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0010 - val\_loss: 0.0016

Epoch 4859/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss: 0.0012

Epoch 4860/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0010 - val\_loss: 0.0010

Epoch 4861/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0010 - val\_loss: 0.0016

Epoch 4862/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0012

Epoch 4863/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.4876e-04 - val\_loss: 0.0012

Epoch 4864/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss: 0.0011

Epoch 4865/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss: 0.0011

Epoch 4866/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss: 8.4965e-04

Epoch 4867/100000  
 63/63 [=====] - 0s 3ms/step - loss: 9.8907e-04 -  
 val\_loss: 8.0578e-04  
 Epoch 4868/100000  
 63/63 [=====] - 0s 3ms/step - loss: 8.9172e-04 -  
 val\_loss: 9.2919e-04  
 Epoch 4869/100000  
 63/63 [=====] - 0s 4ms/step - loss: 0.0010 - val\_loss:  
 8.1759e-04  
 Epoch 4870/100000  
 63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss:  
 9.4386e-04  
 Epoch 4871/100000  
 63/63 [=====] - 0s 3ms/step - loss: 0.0010 - val\_loss:  
 0.0013  
 Epoch 4872/100000  
 63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss:  
 0.0011  
 Epoch 4873/100000  
 63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss:  
 9.6791e-04  
 Epoch 4874/100000  
 63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss:  
 0.0018  
 Epoch 4875/100000  
 63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss:  
 0.0016  
 Epoch 4876/100000  
 63/63 [=====] - 0s 3ms/step - loss: 0.0010 - val\_loss:  
 0.0017  
 Epoch 4877/100000  
 63/63 [=====] - 0s 3ms/step - loss: 0.0010 - val\_loss:  
 0.0020  
 Epoch 4878/100000  
 63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss:  
 0.0013  
 Epoch 4879/100000  
 63/63 [=====] - 0s 3ms/step - loss: 9.2767e-04 -  
 val\_loss: 0.0015  
 Epoch 4880/100000  
 63/63 [=====] - 0s 3ms/step - loss: 8.7814e-04 -  
 val\_loss: 0.0012  
 Epoch 4881/100000  
 63/63 [=====] - 0s 4ms/step - loss: 8.9189e-04 -  
 val\_loss: 0.0015  
 Epoch 4882/100000  
 63/63 [=====] - 0s 4ms/step - loss: 7.6556e-04 -  
 val\_loss: 0.0014

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Epoch 4883/100000
63/63 [=====] - 0s 4ms/step - loss: 7.6585e-04 -
val_loss: 0.0013
Epoch 4884/100000
63/63 [=====] - 0s 4ms/step - loss: 7.4011e-04 -
val_loss: 0.0014
Epoch 4885/100000
63/63 [=====] - 0s 3ms/step - loss: 9.3528e-04 -
val_loss: 0.0018
Epoch 4886/100000
63/63 [=====] - 0s 4ms/step - loss: 0.0010 - val_loss:
0.0014
Epoch 4887/100000
63/63 [=====] - 0s 3ms/step - loss: 9.5069e-04 -
val_loss: 0.0012
Epoch 4888/100000
63/63 [=====] - 0s 3ms/step - loss: 9.6304e-04 -
val_loss: 0.0010
Epoch 4889/100000
63/63 [=====] - 0s 3ms/step - loss: 0.0010 - val_loss:
0.0010
Epoch 4890/100000
63/63 [=====] - 0s 3ms/step - loss: 8.4419e-04 -
val_loss: 0.0011
Epoch 4891/100000
63/63 [=====] - 0s 3ms/step - loss: 0.0010 - val_loss:
0.0010
Epoch 4892/100000
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val_loss:
0.0011
Epoch 4893/100000
63/63 [=====] - 0s 4ms/step - loss: 8.7315e-04 -
val_loss: 0.0012
Epoch 4894/100000
63/63 [=====] - 0s 4ms/step - loss: 8.4176e-04 -
val_loss: 0.0014
Epoch 4895/100000
63/63 [=====] - 0s 3ms/step - loss: 9.2109e-04 -
val_loss: 0.0016
Epoch 4896/100000
63/63 [=====] - 0s 4ms/step - loss: 6.9236e-04 -
val_loss: 0.0013
Epoch 4897/100000
63/63 [=====] - 0s 4ms/step - loss: 8.2110e-04 -
val_loss: 0.0017
Epoch 4898/100000
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val_loss:
0.0016

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Epoch 4899/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss: 0.0025

Epoch 4900/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss: 0.0012

Epoch 4901/100000  
63/63 [=====] - 0s 4ms/step - loss: 8.3345e-04 - val\_loss: 0.0014

Epoch 4902/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.2464e-04 - val\_loss: 0.0014

Epoch 4903/100000  
63/63 [=====] - 0s 4ms/step - loss: 8.2558e-04 - val\_loss: 0.0017

Epoch 4904/100000  
63/63 [=====] - 0s 4ms/step - loss: 8.2534e-04 - val\_loss: 0.0013

Epoch 4905/100000  
63/63 [=====] - 0s 3ms/step - loss: 7.9345e-04 - val\_loss: 8.9717e-04

Epoch 4906/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.1583e-04 - val\_loss: 8.1465e-04

Epoch 4907/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.8629e-04 - val\_loss: 9.5321e-04

Epoch 4908/100000  
63/63 [=====] - 0s 4ms/step - loss: 9.1476e-04 - val\_loss: 0.0011

Epoch 4909/100000  
63/63 [=====] - 0s 4ms/step - loss: 8.8176e-04 - val\_loss: 0.0014

Epoch 4910/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.5874e-04 - val\_loss: 0.0014

Epoch 4911/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.9971e-04 - val\_loss: 0.0012

Epoch 4912/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.2357e-04 - val\_loss: 0.0020

Epoch 4913/100000  
63/63 [=====] - 0s 4ms/step - loss: 8.8895e-04 - val\_loss: 0.0013

Epoch 4914/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss: 0.0013

Epoch 4915/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss: 0.0017  
Epoch 4916/100000  
63/63 [=====] - 0s 3ms/step - loss: 7.3662e-04 - val\_loss: 9.9404e-04  
Epoch 4917/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.7089e-04 - val\_loss: 8.9524e-04  
Epoch 4918/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.5005e-04 - val\_loss: 0.0014  
Epoch 4919/100000  
63/63 [=====] - 0s 4ms/step - loss: 8.4874e-04 - val\_loss: 0.0015  
Epoch 4920/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.6702e-04 - val\_loss: 0.0015  
Epoch 4921/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.9141e-04 - val\_loss: 0.0015  
Epoch 4922/100000  
63/63 [=====] - 0s 3ms/step - loss: 7.4022e-04 - val\_loss: 0.0015  
Epoch 4923/100000  
63/63 [=====] - 0s 4ms/step - loss: 8.8897e-04 - val\_loss: 0.0010  
Epoch 4924/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0010 - val\_loss: 0.0012  
Epoch 4925/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss: 0.0011  
Epoch 4926/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0010 - val\_loss: 0.0011  
Epoch 4927/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.2381e-04 - val\_loss: 0.0011  
Epoch 4928/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss: 0.0011  
Epoch 4929/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss: 0.0013  
Epoch 4930/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.8104e-04 - val\_loss: 0.0015

Epoch 4931/100000  
63/63 [=====] - 0s 4ms/step - loss: 9.4462e-04 -  
val\_loss: 9.3375e-04

Epoch 4932/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss:  
0.0021

Epoch 4933/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0012 - val\_loss:  
0.0012

Epoch 4934/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0010 - val\_loss:  
0.0012

Epoch 4935/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss:  
0.0010

Epoch 4936/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.9166e-04 -  
val\_loss: 9.1535e-04

Epoch 4937/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.8671e-04 -  
val\_loss: 0.0012

Epoch 4938/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0010 - val\_loss:  
9.7700e-04

Epoch 4939/100000  
63/63 [=====] - 0s 4ms/step - loss: 8.2328e-04 -  
val\_loss: 9.9924e-04

Epoch 4940/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss:  
0.0017

Epoch 4941/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.3590e-04 -  
val\_loss: 0.0012

Epoch 4942/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.7415e-04 -  
val\_loss: 0.0013

Epoch 4943/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.3020e-04 -  
val\_loss: 0.0014

Epoch 4944/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.5138e-04 -  
val\_loss: 0.0016

Epoch 4945/100000  
63/63 [=====] - 0s 4ms/step - loss: 7.4549e-04 -  
val\_loss: 9.7653e-04

Epoch 4946/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.3444e-04 -  
val\_loss: 0.0011

Epoch 4947/100000  
 63/63 [=====] - 0s 3ms/step - loss: 8.3186e-04 -  
 val\_loss: 9.7533e-04  
 Epoch 4948/100000  
 63/63 [=====] - 0s 3ms/step - loss: 9.1196e-04 -  
 val\_loss: 9.0287e-04  
 Epoch 4949/100000  
 63/63 [=====] - 0s 3ms/step - loss: 8.9823e-04 -  
 val\_loss: 0.0012  
 Epoch 4950/100000  
 63/63 [=====] - 0s 3ms/step - loss: 7.4418e-04 -  
 val\_loss: 0.0012  
 Epoch 4951/100000  
 63/63 [=====] - 0s 4ms/step - loss: 8.1472e-04 -  
 val\_loss: 0.0013  
 Epoch 4952/100000  
 63/63 [=====] - 0s 3ms/step - loss: 9.0866e-04 -  
 val\_loss: 9.5137e-04  
 Epoch 4953/100000  
 63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss:  
 0.0010  
 Epoch 4954/100000  
 63/63 [=====] - 0s 4ms/step - loss: 0.0012 - val\_loss:  
 7.1668e-04  
 Epoch 4955/100000  
 63/63 [=====] - 0s 4ms/step - loss: 0.0012 - val\_loss:  
 0.0020  
 Epoch 4956/100000  
 63/63 [=====] - 0s 4ms/step - loss: 0.0012 - val\_loss:  
 0.0010  
 Epoch 4957/100000  
 63/63 [=====] - 0s 4ms/step - loss: 0.0010 - val\_loss:  
 8.1669e-04  
 Epoch 4958/100000  
 63/63 [=====] - 0s 4ms/step - loss: 0.0010 - val\_loss:  
 0.0011  
 Epoch 4959/100000  
 63/63 [=====] - 0s 4ms/step - loss: 9.2871e-04 -  
 val\_loss: 0.0014  
 Epoch 4960/100000  
 63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss:  
 7.9283e-04  
 Epoch 4961/100000  
 63/63 [=====] - 0s 3ms/step - loss: 0.0010 - val\_loss:  
 0.0014  
 Epoch 4962/100000  
 63/63 [=====] - 0s 3ms/step - loss: 0.0010 - val\_loss:  
 0.0010

Epoch 4963/100000  
 63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss: 7.7456e-04  
 Epoch 4964/100000  
 63/63 [=====] - 0s 3ms/step - loss: 0.0010 - val\_loss: 6.7762e-04  
 Epoch 4965/100000  
 63/63 [=====] - 0s 3ms/step - loss: 8.1455e-04 - val\_loss: 8.8019e-04  
 Epoch 4966/100000  
 63/63 [=====] - 0s 4ms/step - loss: 9.6036e-04 - val\_loss: 7.7634e-04  
 Epoch 4967/100000  
 63/63 [=====] - 0s 4ms/step - loss: 0.0010 - val\_loss: 0.0011  
 Epoch 4968/100000  
 63/63 [=====] - 0s 3ms/step - loss: 8.9663e-04 - val\_loss: 7.1303e-04  
 Epoch 4969/100000  
 63/63 [=====] - 0s 3ms/step - loss: 9.3137e-04 - val\_loss: 8.3666e-04  
 Epoch 4970/100000  
 63/63 [=====] - 0s 3ms/step - loss: 9.6959e-04 - val\_loss: 8.8999e-04  
 Epoch 4971/100000  
 63/63 [=====] - 0s 4ms/step - loss: 9.6256e-04 - val\_loss: 9.1867e-04  
 Epoch 4972/100000  
 63/63 [=====] - 0s 4ms/step - loss: 9.8659e-04 - val\_loss: 0.0012  
 Epoch 4973/100000  
 63/63 [=====] - 0s 4ms/step - loss: 0.0010 - val\_loss: 0.0011  
 Epoch 4974/100000  
 63/63 [=====] - 0s 4ms/step - loss: 9.5074e-04 - val\_loss: 8.5076e-04  
 Epoch 4975/100000  
 63/63 [=====] - 0s 3ms/step - loss: 9.2277e-04 - val\_loss: 7.8576e-04  
 Epoch 4976/100000  
 63/63 [=====] - 0s 3ms/step - loss: 9.2408e-04 - val\_loss: 7.7952e-04  
 Epoch 4977/100000  
 63/63 [=====] - 0s 3ms/step - loss: 0.0010 - val\_loss: 9.0164e-04  
 Epoch 4978/100000  
 63/63 [=====] - 0s 3ms/step - loss: 9.8580e-04 - val\_loss: 0.0017



Epoch 4979/100000  
63/63 [=====] - 0s 4ms/step - loss: 9.8342e-04 -  
val\_loss: 6.0995e-04  
Epoch 4980/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.9380e-04 -  
val\_loss: 9.6123e-04  
Epoch 4981/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.7657e-04 -  
val\_loss: 5.6550e-04  
Epoch 4982/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.6461e-04 -  
val\_loss: 9.0534e-04  
Epoch 4983/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0013 - val\_loss:  
0.0016  
Epoch 4984/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss:  
8.8611e-04  
Epoch 4985/100000  
63/63 [=====] - 0s 4ms/step - loss: 7.7134e-04 -  
val\_loss: 8.3008e-04  
Epoch 4986/100000  
63/63 [=====] - 0s 4ms/step - loss: 8.6804e-04 -  
val\_loss: 8.6332e-04  
Epoch 4987/100000  
63/63 [=====] - 0s 4ms/step - loss: 8.9723e-04 -  
val\_loss: 9.3395e-04  
Epoch 4988/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss:  
8.5095e-04  
Epoch 4989/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0013 - val\_loss:  
8.4959e-04  
Epoch 4990/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss:  
0.0010  
Epoch 4991/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.5353e-04 -  
val\_loss: 5.0077e-04  
Epoch 4992/100000  
63/63 [=====] - 0s 4ms/step - loss: 9.6181e-04 -  
val\_loss: 7.1405e-04  
Epoch 4993/100000  
63/63 [=====] - 0s 4ms/step - loss: 8.6488e-04 -  
val\_loss: 9.1275e-04  
Epoch 4994/100000  
63/63 [=====] - 0s 4ms/step - loss: 8.3621e-04 -  
val\_loss: 6.9019e-04

Epoch 4995/100000  
63/63 [=====] - 0s 4ms/step - loss: 9.2068e-04 -  
val\_loss: 9.9402e-04  
Epoch 4996/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss:  
0.0012  
Epoch 4997/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.3166e-04 -  
val\_loss: 9.8634e-04  
Epoch 4998/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.0762e-04 -  
val\_loss: 0.0011  
Epoch 4999/100000  
63/63 [=====] - 0s 4ms/step - loss: 9.3434e-04 -  
val\_loss: 0.0012  
Epoch 5000/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0010 - val\_loss:  
9.1154e-04  
Epoch 5001/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.8729e-04 -  
val\_loss: 6.8571e-04  
Epoch 5002/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss:  
0.0012  
Epoch 5003/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.1642e-04 -  
val\_loss: 9.6864e-04  
Epoch 5004/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0010 - val\_loss:  
0.0010  
Epoch 5005/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.4001e-04 -  
val\_loss: 8.9152e-04  
Epoch 5006/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.9379e-04 -  
val\_loss: 7.9822e-04  
Epoch 5007/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.3908e-04 -  
val\_loss: 5.9733e-04  
Epoch 5008/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.8783e-04 -  
val\_loss: 6.9953e-04  
Epoch 5009/100000  
63/63 [=====] - 0s 3ms/step - loss: 7.5522e-04 -  
val\_loss: 8.4919e-04  
Epoch 5010/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0010 - val\_loss:  
9.9501e-04

Epoch 5011/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0013 - val\_loss: 7.7275e-04  
Epoch 5012/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss: 0.0013  
Epoch 5013/100000  
63/63 [=====] - 0s 4ms/step - loss: 9.5326e-04 - val\_loss: 9.1131e-04  
Epoch 5014/100000  
63/63 [=====] - 0s 4ms/step - loss: 8.7640e-04 - val\_loss: 6.8877e-04  
Epoch 5015/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0010 - val\_loss: 8.9589e-04  
Epoch 5016/100000  
63/63 [=====] - 0s 4ms/step - loss: 9.8427e-04 - val\_loss: 8.9129e-04  
Epoch 5017/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.3792e-04 - val\_loss: 0.0011  
Epoch 5018/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.4305e-04 - val\_loss: 8.7618e-04  
Epoch 5019/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.6886e-04 - val\_loss: 8.2813e-04  
Epoch 5020/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.7690e-04 - val\_loss: 0.0012  
Epoch 5021/100000  
63/63 [=====] - 0s 3ms/step - loss: 7.3583e-04 - val\_loss: 8.4067e-04  
Epoch 5022/100000  
63/63 [=====] - 0s 4ms/step - loss: 8.2000e-04 - val\_loss: 7.6149e-04  
Epoch 5023/100000  
63/63 [=====] - 0s 4ms/step - loss: 8.6870e-04 - val\_loss: 9.6519e-04  
Epoch 5024/100000  
63/63 [=====] - 0s 3ms/step - loss: 7.8135e-04 - val\_loss: 8.3036e-04  
Epoch 5025/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.0696e-04 - val\_loss: 0.0011  
Epoch 5026/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.9521e-04 - val\_loss: 9.4565e-04

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Epoch 5027/100000
63/63 [=====] - 0s 3ms/step - loss: 7.3437e-04 -
val_loss: 8.5711e-04
Epoch 5028/100000
63/63 [=====] - 0s 3ms/step - loss: 9.7699e-04 -
val_loss: 8.6384e-04
Epoch 5029/100000
63/63 [=====] - 0s 4ms/step - loss: 7.8210e-04 -
val_loss: 6.4924e-04
Epoch 5030/100000
63/63 [=====] - 0s 4ms/step - loss: 8.1329e-04 -
val_loss: 7.0936e-04
Epoch 5031/100000
63/63 [=====] - 0s 4ms/step - loss: 8.1342e-04 -
val_loss: 8.3196e-04
Epoch 5032/100000
63/63 [=====] - 0s 3ms/step - loss: 7.7599e-04 -
val_loss: 7.9739e-04
Epoch 5033/100000
63/63 [=====] - 0s 3ms/step - loss: 8.5622e-04 -
val_loss: 8.3662e-04
Epoch 5034/100000
63/63 [=====] - 0s 3ms/step - loss: 8.0330e-04 -
val_loss: 8.9934e-04
Epoch 5035/100000
63/63 [=====] - 0s 4ms/step - loss: 7.9683e-04 -
val_loss: 8.6489e-04
Epoch 5036/100000
63/63 [=====] - 0s 3ms/step - loss: 8.5805e-04 -
val_loss: 7.0882e-04
Epoch 5037/100000
63/63 [=====] - 0s 3ms/step - loss: 8.6502e-04 -
val_loss: 6.2162e-04
Epoch 5038/100000
63/63 [=====] - 0s 3ms/step - loss: 8.1218e-04 -
val_loss: 7.4298e-04
Epoch 5039/100000
63/63 [=====] - 0s 3ms/step - loss: 7.2762e-04 -
val_loss: 7.9420e-04
Epoch 5040/100000
63/63 [=====] - 0s 4ms/step - loss: 8.4862e-04 -
val_loss: 7.0875e-04
Epoch 5041/100000
63/63 [=====] - 0s 3ms/step - loss: 8.0324e-04 -
val_loss: 8.9063e-04
Epoch 5042/100000
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val_loss:
9.1712e-04

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Epoch 5043/100000  
 63/63 [=====] - 0s 3ms/step - loss: 0.0010 - val\_loss: 8.2825e-04  
 Epoch 5044/100000  
 63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss: 9.7392e-04  
 Epoch 5045/100000  
 63/63 [=====] - 0s 3ms/step - loss: 7.0986e-04 - val\_loss: 8.6254e-04  
 Epoch 5046/100000  
 63/63 [=====] - 0s 3ms/step - loss: 7.3699e-04 - val\_loss: 7.8308e-04  
 Epoch 5047/100000  
 63/63 [=====] - 0s 3ms/step - loss: 8.5533e-04 - val\_loss: 9.4242e-04  
 Epoch 5048/100000  
 63/63 [=====] - 0s 3ms/step - loss: 9.7289e-04 - val\_loss: 9.8639e-04  
 Epoch 5049/100000  
 63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss: 0.0012  
 Epoch 5050/100000  
 63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss: 0.0013  
 Epoch 5051/100000  
 63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss: 6.8606e-04  
 Epoch 5052/100000  
 63/63 [=====] - 0s 4ms/step - loss: 8.7824e-04 - val\_loss: 6.8323e-04  
 Epoch 5053/100000  
 63/63 [=====] - 0s 4ms/step - loss: 8.6804e-04 - val\_loss: 7.4060e-04  
 Epoch 5054/100000  
 63/63 [=====] - 0s 4ms/step - loss: 9.2111e-04 - val\_loss: 9.8955e-04  
 Epoch 5055/100000  
 63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss: 0.0021  
 Epoch 5056/100000  
 63/63 [=====] - 0s 4ms/step - loss: 0.0010 - val\_loss: 0.0014  
 Epoch 5057/100000  
 63/63 [=====] - 0s 4ms/step - loss: 9.3799e-04 - val\_loss: 0.0012  
 Epoch 5058/100000  
 63/63 [=====] - 0s 4ms/step - loss: 9.4927e-04 - val\_loss: 0.0012

Epoch 5059/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0010 - val\_loss: 0.0014

Epoch 5060/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.8380e-04 - val\_loss: 9.9810e-04

Epoch 5061/100000  
63/63 [=====] - 0s 4ms/step - loss: 9.9307e-04 - val\_loss: 0.0017

Epoch 5062/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0010 - val\_loss: 0.0011

Epoch 5063/100000  
63/63 [=====] - 0s 3ms/step - loss: 7.0869e-04 - val\_loss: 0.0013

Epoch 5064/100000  
63/63 [=====] - 0s 4ms/step - loss: 9.4001e-04 - val\_loss: 0.0012

Epoch 5065/100000  
63/63 [=====] - 0s 4ms/step - loss: 7.8618e-04 - val\_loss: 9.5924e-04

Epoch 5066/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.4515e-04 - val\_loss: 0.0014

Epoch 5067/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.1376e-04 - val\_loss: 7.6091e-04

Epoch 5068/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.3274e-04 - val\_loss: 9.5312e-04

Epoch 5069/100000  
63/63 [=====] - 0s 3ms/step - loss: 6.9780e-04 - val\_loss: 0.0012

Epoch 5070/100000  
63/63 [=====] - 0s 4ms/step - loss: 7.6923e-04 - val\_loss: 0.0011

Epoch 5071/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0010 - val\_loss: 0.0014

Epoch 5072/100000  
63/63 [=====] - 0s 4ms/step - loss: 9.7904e-04 - val\_loss: 8.7319e-04

Epoch 5073/100000  
63/63 [=====] - 0s 4ms/step - loss: 8.4323e-04 - val\_loss: 0.0010

Epoch 5074/100000  
63/63 [=====] - 0s 3ms/step - loss: 7.2097e-04 - val\_loss: 0.0011

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Epoch 5075/100000
63/63 [=====] - 0s 4ms/step - loss: 7.2396e-04 -
val_loss: 0.0011
Epoch 5076/100000
63/63 [=====] - 0s 4ms/step - loss: 8.3225e-04 -
val_loss: 0.0012
Epoch 5077/100000
63/63 [=====] - 0s 3ms/step - loss: 9.3316e-04 -
val_loss: 7.3766e-04
Epoch 5078/100000
63/63 [=====] - 0s 3ms/step - loss: 8.1978e-04 -
val_loss: 0.0011
Epoch 5079/100000
63/63 [=====] - 0s 4ms/step - loss: 7.7851e-04 -
val_loss: 0.0014
Epoch 5080/100000
63/63 [=====] - 0s 4ms/step - loss: 9.4948e-04 -
val_loss: 8.1006e-04
Epoch 5081/100000
63/63 [=====] - 0s 3ms/step - loss: 8.3019e-04 -
val_loss: 0.0011
Epoch 5082/100000
63/63 [=====] - 0s 4ms/step - loss: 7.0043e-04 -
val_loss: 0.0013
Epoch 5083/100000
63/63 [=====] - 0s 4ms/step - loss: 7.2070e-04 -
val_loss: 9.6807e-04
Epoch 5084/100000
63/63 [=====] - 0s 3ms/step - loss: 7.3893e-04 -
val_loss: 9.0826e-04
Epoch 5085/100000
63/63 [=====] - 0s 3ms/step - loss: 7.5623e-04 -
val_loss: 0.0012
Epoch 5086/100000
63/63 [=====] - 0s 3ms/step - loss: 7.8187e-04 -
val_loss: 0.0015
Epoch 5087/100000
63/63 [=====] - 0s 3ms/step - loss: 0.0010 - val_loss:
9.7572e-04
Epoch 5088/100000
63/63 [=====] - 0s 3ms/step - loss: 8.5065e-04 -
val_loss: 0.0015
Epoch 5089/100000
63/63 [=====] - 0s 4ms/step - loss: 8.5547e-04 -
val_loss: 0.0019
Epoch 5090/100000
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val_loss:
0.0016

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Epoch 5091/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0013

Epoch 5092/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.8027e-04 - val\_loss: 7.4482e-04

Epoch 5093/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.4212e-04 - val\_loss: 0.0013

Epoch 5094/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0010 - val\_loss: 9.3313e-04

Epoch 5095/100000  
63/63 [=====] - 0s 4ms/step - loss: 7.9008e-04 - val\_loss: 8.0490e-04

Epoch 5096/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.7390e-04 - val\_loss: 0.0012

Epoch 5097/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.8146e-04 - val\_loss: 9.7208e-04

Epoch 5098/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.2580e-04 - val\_loss: 8.9070e-04

Epoch 5099/100000  
63/63 [=====] - 0s 4ms/step - loss: 8.3462e-04 - val\_loss: 7.8140e-04

Epoch 5100/100000  
63/63 [=====] - 0s 4ms/step - loss: 7.8932e-04 - val\_loss: 8.8970e-04

Epoch 5101/100000  
63/63 [=====] - 0s 3ms/step - loss: 6.9424e-04 - val\_loss: 0.0011

Epoch 5102/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.2941e-04 - val\_loss: 7.8393e-04

Epoch 5103/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss: 0.0011

Epoch 5104/100000  
63/63 [=====] - 0s 4ms/step - loss: 9.1704e-04 - val\_loss: 9.4240e-04

Epoch 5105/100000  
63/63 [=====] - 0s 4ms/step - loss: 8.8348e-04 - val\_loss: 9.7692e-04

Epoch 5106/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.7697e-04 - val\_loss: 8.5124e-04



Epoch 5107/100000  
63/63 [=====] - 0s 4ms/step - loss: 8.9140e-04 -  
val\_loss: 9.6513e-04

Epoch 5108/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0012 - val\_loss:  
0.0010

Epoch 5109/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.2246e-04 -  
val\_loss: 9.0082e-04

Epoch 5110/100000  
63/63 [=====] - 0s 4ms/step - loss: 8.9291e-04 -  
val\_loss: 7.2687e-04

Epoch 5111/100000  
63/63 [=====] - 0s 4ms/step - loss: 9.6556e-04 -  
val\_loss: 8.0472e-04

Epoch 5112/100000  
63/63 [=====] - 0s 4ms/step - loss: 9.2508e-04 -  
val\_loss: 7.0984e-04

Epoch 5113/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss:  
7.9186e-04

Epoch 5114/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0012 - val\_loss:  
0.0015

Epoch 5115/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss:  
0.0010

Epoch 5116/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss:  
8.7158e-04

Epoch 5117/100000  
63/63 [=====] - 0s 4ms/step - loss: 8.7673e-04 -  
val\_loss: 8.1146e-04

Epoch 5118/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.6713e-04 -  
val\_loss: 7.0460e-04

Epoch 5119/100000  
63/63 [=====] - 0s 4ms/step - loss: 9.7955e-04 -  
val\_loss: 0.0014

Epoch 5120/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.5005e-04 -  
val\_loss: 8.9671e-04

Epoch 5121/100000  
63/63 [=====] - 0s 4ms/step - loss: 9.0168e-04 -  
val\_loss: 0.0013

Epoch 5122/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.6537e-04 -  
val\_loss: 7.3805e-04

Epoch 5123/100000  
 63/63 [=====] - 0s 4ms/step - loss: 8.6391e-04 -  
 val\_loss: 0.0013  
 Epoch 5124/100000  
 63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss:  
 8.8302e-04  
 Epoch 5125/100000  
 63/63 [=====] - 0s 3ms/step - loss: 9.3742e-04 -  
 val\_loss: 8.3039e-04  
 Epoch 5126/100000  
 63/63 [=====] - 0s 3ms/step - loss: 9.8886e-04 -  
 val\_loss: 9.6781e-04  
 Epoch 5127/100000  
 63/63 [=====] - 0s 4ms/step - loss: 9.7159e-04 -  
 val\_loss: 9.7853e-04  
 Epoch 5128/100000  
 63/63 [=====] - 0s 4ms/step - loss: 8.0621e-04 -  
 val\_loss: 9.1350e-04  
 Epoch 5129/100000  
 63/63 [=====] - 0s 4ms/step - loss: 0.0010 - val\_loss:  
 9.3201e-04  
 Epoch 5130/100000  
 63/63 [=====] - 0s 4ms/step - loss: 9.1158e-04 -  
 val\_loss: 9.5057e-04  
 Epoch 5131/100000  
 63/63 [=====] - 0s 3ms/step - loss: 9.7142e-04 -  
 val\_loss: 7.9555e-04  
 Epoch 5132/100000  
 63/63 [=====] - 0s 4ms/step - loss: 9.0407e-04 -  
 val\_loss: 9.7436e-04  
 Epoch 5133/100000  
 63/63 [=====] - 0s 3ms/step - loss: 9.4326e-04 -  
 val\_loss: 8.0606e-04  
 Epoch 5134/100000  
 63/63 [=====] - 0s 3ms/step - loss: 8.3010e-04 -  
 val\_loss: 7.8176e-04  
 Epoch 5135/100000  
 63/63 [=====] - 0s 4ms/step - loss: 8.8351e-04 -  
 val\_loss: 7.7899e-04  
 Epoch 5136/100000  
 63/63 [=====] - 0s 3ms/step - loss: 9.7336e-04 -  
 val\_loss: 0.0016  
 Epoch 5137/100000  
 63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss:  
 8.5692e-04  
 Epoch 5138/100000  
 63/63 [=====] - 0s 3ms/step - loss: 8.4166e-04 -  
 val\_loss: 0.0011

Epoch 5139/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.3680e-04 -  
val\_loss: 0.0011  
Epoch 5140/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0010 - val\_loss:  
7.5228e-04  
Epoch 5141/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0010 - val\_loss:  
7.7572e-04  
Epoch 5142/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.0657e-04 -  
val\_loss: 6.7400e-04  
Epoch 5143/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.4477e-04 -  
val\_loss: 9.0837e-04  
Epoch 5144/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.3017e-04 -  
val\_loss: 6.6631e-04  
Epoch 5145/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.8231e-04 -  
val\_loss: 5.4159e-04  
Epoch 5146/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss:  
6.9153e-04  
Epoch 5147/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss:  
0.0011  
Epoch 5148/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.3694e-04 -  
val\_loss: 7.2951e-04  
Epoch 5149/100000  
63/63 [=====] - 0s 4ms/step - loss: 9.9900e-04 -  
val\_loss: 6.1433e-04  
Epoch 5150/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.7999e-04 -  
val\_loss: 9.1421e-04  
Epoch 5151/100000  
63/63 [=====] - 0s 4ms/step - loss: 8.9275e-04 -  
val\_loss: 7.9513e-04  
Epoch 5152/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.8467e-04 -  
val\_loss: 0.0013  
Epoch 5153/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss:  
0.0013  
Epoch 5154/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.6300e-04 -  
val\_loss: 8.0443e-04

Epoch 5155/100000  
63/63 [=====] - 0s 4ms/step - loss: 8.2393e-04 -  
val\_loss: 0.0011  
Epoch 5156/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.2599e-04 -  
val\_loss: 0.0013  
Epoch 5157/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0010 - val\_loss:  
9.8257e-04  
Epoch 5158/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss:  
0.0016  
Epoch 5159/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss:  
9.2968e-04  
Epoch 5160/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.1077e-04 -  
val\_loss: 0.0010  
Epoch 5161/100000  
63/63 [=====] - 0s 4ms/step - loss: 8.2694e-04 -  
val\_loss: 9.1537e-04  
Epoch 5162/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.8583e-04 -  
val\_loss: 7.9865e-04  
Epoch 5163/100000  
63/63 [=====] - 0s 4ms/step - loss: 7.8884e-04 -  
val\_loss: 0.0012  
Epoch 5164/100000  
63/63 [=====] - 0s 3ms/step - loss: 7.5412e-04 -  
val\_loss: 8.3185e-04  
Epoch 5165/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss:  
0.0010  
Epoch 5166/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss:  
7.6234e-04  
Epoch 5167/100000  
63/63 [=====] - 0s 4ms/step - loss: 8.4193e-04 -  
val\_loss: 8.2212e-04  
Epoch 5168/100000  
63/63 [=====] - 0s 3ms/step - loss: 7.2447e-04 -  
val\_loss: 9.2723e-04  
Epoch 5169/100000  
63/63 [=====] - 0s 5ms/step - loss: 8.9820e-04 -  
val\_loss: 0.0011  
Epoch 5170/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.6043e-04 -  
val\_loss: 9.7684e-04

Epoch 5171/100000  
 63/63 [=====] - 0s 4ms/step - loss: 8.2273e-04 -  
 val\_loss: 8.4985e-04  
 Epoch 5172/100000  
 63/63 [=====] - 0s 3ms/step - loss: 7.9697e-04 -  
 val\_loss: 9.7330e-04  
 Epoch 5173/100000  
 63/63 [=====] - 0s 4ms/step - loss: 9.1279e-04 -  
 val\_loss: 9.1174e-04  
 Epoch 5174/100000  
 63/63 [=====] - 0s 5ms/step - loss: 8.4383e-04 -  
 val\_loss: 6.8888e-04  
 Epoch 5175/100000  
 63/63 [=====] - 0s 4ms/step - loss: 7.6719e-04 -  
 val\_loss: 7.2763e-04  
 Epoch 5176/100000  
 63/63 [=====] - 0s 3ms/step - loss: 8.8282e-04 -  
 val\_loss: 7.5081e-04  
 Epoch 5177/100000  
 63/63 [=====] - 0s 4ms/step - loss: 7.2950e-04 -  
 val\_loss: 6.8740e-04  
 Epoch 5178/100000  
 63/63 [=====] - 0s 4ms/step - loss: 7.3511e-04 -  
 val\_loss: 7.5117e-04  
 Epoch 5179/100000  
 63/63 [=====] - 0s 3ms/step - loss: 8.8799e-04 -  
 val\_loss: 8.0564e-04  
 Epoch 5180/100000  
 63/63 [=====] - 0s 4ms/step - loss: 0.0012 - val\_loss:  
 8.9760e-04  
 Epoch 5181/100000  
 63/63 [=====] - 0s 3ms/step - loss: 8.0132e-04 -  
 val\_loss: 6.2918e-04  
 Epoch 5182/100000  
 63/63 [=====] - 0s 3ms/step - loss: 7.1449e-04 -  
 val\_loss: 8.3460e-04  
 Epoch 5183/100000  
 63/63 [=====] - 0s 3ms/step - loss: 6.8919e-04 -  
 val\_loss: 6.7379e-04  
 Epoch 5184/100000  
 63/63 [=====] - 0s 4ms/step - loss: 9.5096e-04 -  
 val\_loss: 0.0013  
 Epoch 5185/100000  
 63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss:  
 6.2181e-04  
 Epoch 5186/100000  
 63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss:  
 7.9632e-04

Epoch 5187/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss: 0.0016  
Epoch 5188/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0013 - val\_loss: 0.0010  
Epoch 5189/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0016 - val\_loss: 0.0013  
Epoch 5190/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss: 0.0014  
Epoch 5191/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss: 0.0012  
Epoch 5192/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss: 9.0378e-04  
Epoch 5193/100000  
63/63 [=====] - 0s 4ms/step - loss: 9.8750e-04 - val\_loss: 8.8949e-04  
Epoch 5194/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0010 - val\_loss: 0.0013  
Epoch 5195/100000  
63/63 [=====] - 0s 4ms/step - loss: 9.7585e-04 - val\_loss: 7.2940e-04  
Epoch 5196/100000  
63/63 [=====] - 0s 4ms/step - loss: 9.4246e-04 - val\_loss: 0.0013  
Epoch 5197/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0010 - val\_loss: 7.6802e-04  
Epoch 5198/100000  
63/63 [=====] - 0s 4ms/step - loss: 8.0853e-04 - val\_loss: 5.2863e-04  
Epoch 5199/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss: 0.0017  
Epoch 5200/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0012 - val\_loss: 9.8455e-04  
Epoch 5201/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss: 7.0685e-04  
Epoch 5202/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss: 8.9541e-04

Epoch 5203/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.4772e-04 -  
val\_loss: 7.1877e-04

Epoch 5204/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.8220e-04 -  
val\_loss: 7.2068e-04

Epoch 5205/100000  
63/63 [=====] - 0s 4ms/step - loss: 9.2540e-04 -  
val\_loss: 6.5828e-04

Epoch 5206/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.2980e-04 -  
val\_loss: 8.3671e-04

Epoch 5207/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0010 - val\_loss:  
7.9267e-04

Epoch 5208/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.3663e-04 -  
val\_loss: 6.6680e-04

Epoch 5209/100000  
63/63 [=====] - 0s 3ms/step - loss: 7.6410e-04 -  
val\_loss: 6.7844e-04

Epoch 5210/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss:  
0.0011

Epoch 5211/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.1014e-04 -  
val\_loss: 0.0011

Epoch 5212/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss:  
7.9002e-04

Epoch 5213/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0010 - val\_loss:  
6.9375e-04

Epoch 5214/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.5303e-04 -  
val\_loss: 7.4463e-04

Epoch 5215/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.7099e-04 -  
val\_loss: 7.8101e-04

Epoch 5216/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.2298e-04 -  
val\_loss: 5.4623e-04

Epoch 5217/100000  
63/63 [=====] - 0s 3ms/step - loss: 7.6688e-04 -  
val\_loss: 8.4920e-04

Epoch 5218/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.9043e-04 -  
val\_loss: 7.0736e-04

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Epoch 5219/100000
63/63 [=====] - 0s 3ms/step - loss: 9.9269e-04 -
val_loss: 7.3611e-04
Epoch 5220/100000
63/63 [=====] - 0s 4ms/step - loss: 8.3833e-04 -
val_loss: 8.6632e-04
Epoch 5221/100000
63/63 [=====] - 0s 3ms/step - loss: 9.3934e-04 -
val_loss: 7.0027e-04
Epoch 5222/100000
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val_loss:
0.0013
Epoch 5223/100000
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val_loss:
7.2735e-04
Epoch 5224/100000
63/63 [=====] - 0s 3ms/step - loss: 9.4950e-04 -
val_loss: 8.6933e-04
Epoch 5225/100000
63/63 [=====] - 0s 3ms/step - loss: 9.9416e-04 -
val_loss: 0.0011
Epoch 5226/100000
63/63 [=====] - 0s 3ms/step - loss: 9.9252e-04 -
val_loss: 9.7601e-04
Epoch 5227/100000
63/63 [=====] - 0s 3ms/step - loss: 0.0010 - val_loss:
0.0012
Epoch 5228/100000
63/63 [=====] - 0s 4ms/step - loss: 0.0012 - val_loss:
9.5958e-04
Epoch 5229/100000
63/63 [=====] - 0s 4ms/step - loss: 0.0010 - val_loss:
0.0014
Epoch 5230/100000
63/63 [=====] - 0s 4ms/step - loss: 0.0012 - val_loss:
0.0014
Epoch 5231/100000
63/63 [=====] - 0s 4ms/step - loss: 0.0014 - val_loss:
0.0011
Epoch 5232/100000
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val_loss:
0.0016
Epoch 5233/100000
63/63 [=====] - 0s 4ms/step - loss: 0.0013 - val_loss:
0.0020
Epoch 5234/100000
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val_loss:
0.0014

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Epoch 5235/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0013 - val\_loss: 0.0010

Epoch 5236/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss: 0.0012

Epoch 5237/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss: 0.0012

Epoch 5238/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss: 8.1645e-04

Epoch 5239/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss: 0.0013

Epoch 5240/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss: 9.2463e-04

Epoch 5241/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0012

Epoch 5242/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0013 - val\_loss: 9.8788e-04

Epoch 5243/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss: 0.0012

Epoch 5244/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0010 - val\_loss: 0.0010

Epoch 5245/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0011

Epoch 5246/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.0635e-04 - val\_loss: 8.9216e-04

Epoch 5247/100000  
63/63 [=====] - 0s 3ms/step - loss: 7.9670e-04 - val\_loss: 8.6410e-04

Epoch 5248/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.3691e-04 - val\_loss: 8.0047e-04

Epoch 5249/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss: 8.5159e-04

Epoch 5250/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss: 0.0013

Epoch 5251/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.3383e-04 -  
val\_loss: 0.0011  
Epoch 5252/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss:  
0.0011  
Epoch 5253/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss:  
6.9373e-04  
Epoch 5254/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.6923e-04 -  
val\_loss: 0.0013  
Epoch 5255/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss:  
0.0012  
Epoch 5256/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss:  
0.0013  
Epoch 5257/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss:  
0.0011  
Epoch 5258/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss:  
0.0014  
Epoch 5259/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss:  
0.0013  
Epoch 5260/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss:  
0.0011  
Epoch 5261/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss:  
0.0013  
Epoch 5262/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss:  
0.0012  
Epoch 5263/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss:  
0.0014  
Epoch 5264/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss:  
0.0017  
Epoch 5265/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss:  
0.0011  
Epoch 5266/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val\_loss:  
0.0010

Epoch 5267/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 9.4349e-04

Epoch 5268/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0015

Epoch 5269/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 0.0012

Epoch 5270/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0011

Epoch 5271/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0014

Epoch 5272/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss: 0.0012

Epoch 5273/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss: 0.0015

Epoch 5274/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss: 0.0012

Epoch 5275/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss: 0.0015

Epoch 5276/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0013

Epoch 5277/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss: 0.0014

Epoch 5278/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 8.2281e-04

Epoch 5279/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss: 0.0013

Epoch 5280/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0011

Epoch 5281/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss: 0.0011

Epoch 5282/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss: 8.6091e-04

Epoch 5283/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.0059e-04 -  
val\_loss: 0.0011

Epoch 5284/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss:  
0.0020

Epoch 5285/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss:  
9.9142e-04

Epoch 5286/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0010 - val\_loss:  
0.0012

Epoch 5287/100000  
63/63 [=====] - 0s 4ms/step - loss: 8.7565e-04 -  
val\_loss: 9.9023e-04

Epoch 5288/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss:  
0.0013

Epoch 5289/100000  
63/63 [=====] - 0s 4ms/step - loss: 8.4522e-04 -  
val\_loss: 9.0203e-04

Epoch 5290/100000  
63/63 [=====] - 0s 4ms/step - loss: 9.6067e-04 -  
val\_loss: 0.0013

Epoch 5291/100000  
63/63 [=====] - 0s 4ms/step - loss: 9.8313e-04 -  
val\_loss: 9.9640e-04

Epoch 5292/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss:  
0.0011

Epoch 5293/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0012 - val\_loss:  
0.0011

Epoch 5294/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0015 - val\_loss:  
0.0022

Epoch 5295/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0014 - val\_loss:  
0.0010

Epoch 5296/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss:  
0.0012

Epoch 5297/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss:  
0.0010

Epoch 5298/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss:  
0.0011

Epoch 5299/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0014 - val\_loss: 0.0010

Epoch 5300/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss: 0.0013

Epoch 5301/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss: 0.0010

Epoch 5302/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss: 9.6750e-04

Epoch 5303/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0010

Epoch 5304/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0013 - val\_loss: 0.0014

Epoch 5305/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss: 0.0012

Epoch 5306/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0013 - val\_loss: 9.0157e-04

Epoch 5307/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0013 - val\_loss: 9.2956e-04

Epoch 5308/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0014 - val\_loss: 8.6909e-04

Epoch 5309/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss: 0.0012

Epoch 5310/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss: 0.0011

Epoch 5311/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0010 - val\_loss: 0.0014

Epoch 5312/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0012 - val\_loss: 0.0011

Epoch 5313/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0013 - val\_loss: 0.0013

Epoch 5314/100000  
63/63 [=====] - 0s 4ms/step - loss: 8.8033e-04 - val\_loss: 0.0012

Epoch 5315/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.2252e-04 -  
val\_loss: 7.8330e-04

Epoch 5316/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0010 - val\_loss:  
0.0011

Epoch 5317/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0010 - val\_loss:  
0.0012

Epoch 5318/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss:  
0.0012

Epoch 5319/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss:  
9.6548e-04

Epoch 5320/100000  
63/63 [=====] - 0s 4ms/step - loss: 9.6744e-04 -  
val\_loss: 0.0015

Epoch 5321/100000  
63/63 [=====] - 0s 4ms/step - loss: 9.2277e-04 -  
val\_loss: 0.0011

Epoch 5322/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0013 - val\_loss:  
0.0012

Epoch 5323/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0012 - val\_loss:  
0.0012

Epoch 5324/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss:  
0.0016

Epoch 5325/100000  
63/63 [=====] - 0s 4ms/step - loss: 9.9213e-04 -  
val\_loss: 0.0011

Epoch 5326/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss:  
0.0016

Epoch 5327/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss:  
0.0011

Epoch 5328/100000  
63/63 [=====] - 0s 4ms/step - loss: 9.9188e-04 -  
val\_loss: 9.3772e-04

Epoch 5329/100000  
63/63 [=====] - 0s 4ms/step - loss: 8.7178e-04 -  
val\_loss: 8.4131e-04

Epoch 5330/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss:  
0.0010

Epoch 5331/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss: 0.0017

Epoch 5332/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0013 - val\_loss: 0.0012

Epoch 5333/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss: 8.4386e-04

Epoch 5334/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0010 - val\_loss: 0.0015

Epoch 5335/100000  
63/63 [=====] - 0s 4ms/step - loss: 9.9455e-04 - val\_loss: 0.0014

Epoch 5336/100000  
63/63 [=====] - 0s 4ms/step - loss: 9.9208e-04 - val\_loss: 0.0011

Epoch 5337/100000  
63/63 [=====] - 0s 4ms/step - loss: 8.8333e-04 - val\_loss: 8.8843e-04

Epoch 5338/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss: 0.0012

Epoch 5339/100000  
63/63 [=====] - 0s 4ms/step - loss: 9.9575e-04 - val\_loss: 0.0010

Epoch 5340/100000  
63/63 [=====] - 0s 4ms/step - loss: 9.7611e-04 - val\_loss: 0.0013

Epoch 5341/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0010 - val\_loss: 7.9555e-04

Epoch 5342/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss: 0.0011

Epoch 5343/100000  
63/63 [=====] - 0s 4ms/step - loss: 9.2287e-04 - val\_loss: 9.7721e-04

Epoch 5344/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0010 - val\_loss: 0.0017

Epoch 5345/100000  
63/63 [=====] - 0s 6ms/step - loss: 0.0011 - val\_loss: 8.9911e-04

Epoch 5346/100000  
63/63 [=====] - 0s 5ms/step - loss: 9.4925e-04 - val\_loss: 7.3078e-04

Epoch 5347/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0011 - val\_loss: 0.0014

Epoch 5348/100000  
63/63 [=====] - 0s 5ms/step - loss: 9.8852e-04 - val\_loss: 8.5493e-04

Epoch 5349/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0010 - val\_loss: 0.0010

Epoch 5350/100000  
63/63 [=====] - 0s 5ms/step - loss: 0.0012 - val\_loss: 0.0012

Epoch 5351/100000  
63/63 [=====] - 0s 4ms/step - loss: 9.9099e-04 - val\_loss: 0.0011

Epoch 5352/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.5225e-04 - val\_loss: 0.0012

Epoch 5353/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.7117e-04 - val\_loss: 0.0010

Epoch 5354/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss: 0.0011

Epoch 5355/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0010 - val\_loss: 0.0011

Epoch 5356/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0012 - val\_loss: 0.0011

Epoch 5357/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss: 9.2084e-04

Epoch 5358/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0012 - val\_loss: 0.0011

Epoch 5359/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss: 9.1648e-04

Epoch 5360/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss: 9.8438e-04

Epoch 5361/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss: 9.3123e-04

Epoch 5362/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0012 - val\_loss: 0.0012



Epoch 5363/100000  
63/63 [=====] - 0s 4ms/step - loss: 9.8455e-04 -  
val\_loss: 0.0010  
Epoch 5364/100000  
63/63 [=====] - 0s 4ms/step - loss: 9.6817e-04 -  
val\_loss: 9.7871e-04  
Epoch 5365/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0017 - val\_loss:  
0.0012  
Epoch 5366/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0010 - val\_loss:  
8.5456e-04  
Epoch 5367/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss:  
0.0011  
Epoch 5368/100000  
63/63 [=====] - 0s 4ms/step - loss: 9.9025e-04 -  
val\_loss: 9.3668e-04  
Epoch 5369/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0012 - val\_loss:  
0.0012  
Epoch 5370/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.9077e-04 -  
val\_loss: 0.0015  
Epoch 5371/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0013 - val\_loss:  
0.0012  
Epoch 5372/100000  
63/63 [=====] - 0s 4ms/step - loss: 8.6407e-04 -  
val\_loss: 0.0010  
Epoch 5373/100000  
63/63 [=====] - 0s 4ms/step - loss: 9.1788e-04 -  
val\_loss: 9.2680e-04  
Epoch 5374/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0010 - val\_loss:  
7.7723e-04  
Epoch 5375/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.3033e-04 -  
val\_loss: 9.8932e-04  
Epoch 5376/100000  
63/63 [=====] - 0s 4ms/step - loss: 9.9956e-04 -  
val\_loss: 9.3344e-04  
Epoch 5377/100000  
63/63 [=====] - 0s 4ms/step - loss: 9.3233e-04 -  
val\_loss: 9.9229e-04  
Epoch 5378/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0010 - val\_loss:  
8.1110e-04

Epoch 5379/100000  
 63/63 [=====] - 0s 4ms/step - loss: 8.8945e-04 -  
 val\_loss: 0.0012  
 Epoch 5380/100000  
 63/63 [=====] - 0s 4ms/step - loss: 0.0010 - val\_loss:  
 8.9240e-04  
 Epoch 5381/100000  
 63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss:  
 0.0013  
 Epoch 5382/100000  
 63/63 [=====] - 0s 4ms/step - loss: 0.0010 - val\_loss:  
 9.3383e-04  
 Epoch 5383/100000  
 63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss:  
 0.0012  
 Epoch 5384/100000  
 63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss:  
 0.0011  
 Epoch 5385/100000  
 63/63 [=====] - 0s 4ms/step - loss: 9.2928e-04 -  
 val\_loss: 9.1605e-04  
 Epoch 5386/100000  
 63/63 [=====] - 0s 5ms/step - loss: 9.2423e-04 -  
 val\_loss: 9.9089e-04  
 Epoch 5387/100000  
 63/63 [=====] - 0s 4ms/step - loss: 9.3687e-04 -  
 val\_loss: 0.0013  
 Epoch 5388/100000  
 63/63 [=====] - 0s 3ms/step - loss: 9.3940e-04 -  
 val\_loss: 6.9468e-04  
 Epoch 5389/100000  
 63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss:  
 7.6106e-04  
 Epoch 5390/100000  
 63/63 [=====] - 0s 4ms/step - loss: 9.3053e-04 -  
 val\_loss: 0.0010  
 Epoch 5391/100000  
 63/63 [=====] - 0s 3ms/step - loss: 0.0010 - val\_loss:  
 0.0011  
 Epoch 5392/100000  
 63/63 [=====] - 0s 3ms/step - loss: 8.7673e-04 -  
 val\_loss: 0.0010  
 Epoch 5393/100000  
 63/63 [=====] - 0s 3ms/step - loss: 9.1790e-04 -  
 val\_loss: 0.0011  
 Epoch 5394/100000  
 63/63 [=====] - 0s 3ms/step - loss: 8.4821e-04 -  
 val\_loss: 7.3127e-04

Epoch 5395/100000  
 63/63 [=====] - 0s 4ms/step - loss: 9.2179e-04 -  
 val\_loss: 0.0012  
 Epoch 5396/100000  
 63/63 [=====] - 0s 4ms/step - loss: 0.0012 - val\_loss:  
 0.0017  
 Epoch 5397/100000  
 63/63 [=====] - 0s 4ms/step - loss: 0.0010 - val\_loss:  
 8.2193e-04  
 Epoch 5398/100000  
 63/63 [=====] - 0s 3ms/step - loss: 9.3299e-04 -  
 val\_loss: 7.9740e-04  
 Epoch 5399/100000  
 63/63 [=====] - 0s 4ms/step - loss: 9.0013e-04 -  
 val\_loss: 0.0012  
 Epoch 5400/100000  
 63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss:  
 8.5576e-04  
 Epoch 5401/100000  
 63/63 [=====] - 0s 4ms/step - loss: 9.0934e-04 -  
 val\_loss: 9.8239e-04  
 Epoch 5402/100000  
 63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss:  
 0.0010  
 Epoch 5403/100000  
 63/63 [=====] - 0s 4ms/step - loss: 9.0597e-04 -  
 val\_loss: 8.6879e-04  
 Epoch 5404/100000  
 63/63 [=====] - 0s 4ms/step - loss: 0.0012 - val\_loss:  
 0.0012  
 Epoch 5405/100000  
 63/63 [=====] - 0s 4ms/step - loss: 9.6296e-04 -  
 val\_loss: 8.8156e-04  
 Epoch 5406/100000  
 63/63 [=====] - 0s 4ms/step - loss: 8.5520e-04 -  
 val\_loss: 8.0664e-04  
 Epoch 5407/100000  
 63/63 [=====] - 0s 5ms/step - loss: 8.8838e-04 -  
 val\_loss: 0.0010  
 Epoch 5408/100000  
 63/63 [=====] - 0s 4ms/step - loss: 8.2292e-04 -  
 val\_loss: 7.7292e-04  
 Epoch 5409/100000  
 63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss:  
 8.8880e-04  
 Epoch 5410/100000  
 63/63 [=====] - 0s 4ms/step - loss: 9.4632e-04 -  
 val\_loss: 0.0011

Epoch 5411/100000  
 63/63 [=====] - 0s 3ms/step - loss: 9.8708e-04 -  
 val\_loss: 0.0010  
 Epoch 5412/100000  
 63/63 [=====] - 0s 4ms/step - loss: 0.0012 - val\_loss:  
 0.0012  
 Epoch 5413/100000  
 63/63 [=====] - 0s 3ms/step - loss: 9.8593e-04 -  
 val\_loss: 0.0011  
 Epoch 5414/100000  
 63/63 [=====] - 0s 3ms/step - loss: 8.8359e-04 -  
 val\_loss: 0.0011  
 Epoch 5415/100000  
 63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss:  
 0.0014  
 Epoch 5416/100000  
 63/63 [=====] - 0s 3ms/step - loss: 8.8995e-04 -  
 val\_loss: 9.9912e-04  
 Epoch 5417/100000  
 63/63 [=====] - 0s 3ms/step - loss: 9.2103e-04 -  
 val\_loss: 8.3538e-04  
 Epoch 5418/100000  
 63/63 [=====] - 0s 3ms/step - loss: 9.3791e-04 -  
 val\_loss: 6.6778e-04  
 Epoch 5419/100000  
 63/63 [=====] - 0s 3ms/step - loss: 8.3145e-04 -  
 val\_loss: 0.0011  
 Epoch 5420/100000  
 63/63 [=====] - 0s 3ms/step - loss: 7.3481e-04 -  
 val\_loss: 9.9475e-04  
 Epoch 5421/100000  
 63/63 [=====] - 0s 3ms/step - loss: 9.0141e-04 -  
 val\_loss: 0.0011  
 Epoch 5422/100000  
 63/63 [=====] - 0s 3ms/step - loss: 8.2529e-04 -  
 val\_loss: 0.0011  
 Epoch 5423/100000  
 63/63 [=====] - 0s 3ms/step - loss: 0.0010 - val\_loss:  
 0.0012  
 Epoch 5424/100000  
 63/63 [=====] - 0s 4ms/step - loss: 0.0010 - val\_loss:  
 0.0011  
 Epoch 5425/100000  
 63/63 [=====] - 0s 3ms/step - loss: 9.9956e-04 -  
 val\_loss: 0.0015  
 Epoch 5426/100000  
 63/63 [=====] - 0s 4ms/step - loss: 8.5803e-04 -  
 val\_loss: 7.8905e-04

Epoch 5427/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss:  
6.5077e-04  
Epoch 5428/100000  
63/63 [=====] - 0s 3ms/step - loss: 7.8801e-04 -  
val\_loss: 5.0284e-04  
Epoch 5429/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0010 - val\_loss:  
6.9045e-04  
Epoch 5430/100000  
63/63 [=====] - 0s 3ms/step - loss: 7.2918e-04 -  
val\_loss: 7.2742e-04  
Epoch 5431/100000  
63/63 [=====] - 0s 3ms/step - loss: 6.9965e-04 -  
val\_loss: 8.5010e-04  
Epoch 5432/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss:  
0.0011  
Epoch 5433/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.5710e-04 -  
val\_loss: 0.0011  
Epoch 5434/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0010 - val\_loss:  
0.0012  
Epoch 5435/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0010 - val\_loss:  
0.0017  
Epoch 5436/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0013 - val\_loss:  
8.8798e-04  
Epoch 5437/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0012 - val\_loss:  
7.4672e-04  
Epoch 5438/100000  
63/63 [=====] - 0s 4ms/step - loss: 9.6011e-04 -  
val\_loss: 0.0011  
Epoch 5439/100000  
63/63 [=====] - 0s 4ms/step - loss: 8.0412e-04 -  
val\_loss: 9.8625e-04  
Epoch 5440/100000  
63/63 [=====] - 0s 4ms/step - loss: 9.6613e-04 -  
val\_loss: 7.2009e-04  
Epoch 5441/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.6072e-04 -  
val\_loss: 7.2017e-04  
Epoch 5442/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss:  
0.0010

Epoch 5443/100000  
63/63 [=====] - 0s 4ms/step - loss: 8.7852e-04 -  
val\_loss: 0.0012  
Epoch 5444/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.5864e-04 -  
val\_loss: 0.0010  
Epoch 5445/100000  
63/63 [=====] - 0s 4ms/step - loss: 7.6063e-04 -  
val\_loss: 9.1373e-04  
Epoch 5446/100000  
63/63 [=====] - 0s 4ms/step - loss: 9.6225e-04 -  
val\_loss: 0.0014  
Epoch 5447/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss:  
0.0011  
Epoch 5448/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0010 - val\_loss:  
9.1530e-04  
Epoch 5449/100000  
63/63 [=====] - 0s 4ms/step - loss: 8.6885e-04 -  
val\_loss: 8.6173e-04  
Epoch 5450/100000  
63/63 [=====] - 0s 3ms/step - loss: 7.9255e-04 -  
val\_loss: 7.5450e-04  
Epoch 5451/100000  
63/63 [=====] - 0s 4ms/step - loss: 7.5343e-04 -  
val\_loss: 7.9986e-04  
Epoch 5452/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.1482e-04 -  
val\_loss: 0.0012  
Epoch 5453/100000  
63/63 [=====] - 0s 3ms/step - loss: 7.6213e-04 -  
val\_loss: 7.1567e-04  
Epoch 5454/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.6768e-04 -  
val\_loss: 8.5389e-04  
Epoch 5455/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.0265e-04 -  
val\_loss: 0.0010  
Epoch 5456/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0010 - val\_loss:  
6.8764e-04  
Epoch 5457/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0010 - val\_loss:  
7.6791e-04  
Epoch 5458/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.3772e-04 -  
val\_loss: 6.6010e-04

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Epoch 5459/100000
63/63 [=====] - 0s 3ms/step - loss: 9.0742e-04 -
val_loss: 8.2337e-04
Epoch 5460/100000
63/63 [=====] - 0s 3ms/step - loss: 8.8017e-04 -
val_loss: 8.2144e-04
Epoch 5461/100000
63/63 [=====] - 0s 3ms/step - loss: 9.4923e-04 -
val_loss: 9.7962e-04
Epoch 5462/100000
63/63 [=====] - 0s 3ms/step - loss: 0.0010 - val_loss:
0.0011
Epoch 5463/100000
58/63 [=====>...] - ETA: 0s - loss: 9.0765e-04Epoch 05462:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 8.7909e-04 -
val_loss: 4.7453e-04
Epoch 5464/100000
63/63 [=====] - 0s 3ms/step - loss: 7.7745e-04 -
val_loss: 0.0010
Epoch 5465/100000
63/63 [=====] - 0s 3ms/step - loss: 8.6713e-04 -
val_loss: 6.0165e-04
Epoch 5466/100000
63/63 [=====] - 0s 3ms/step - loss: 0.0010 - val_loss:
0.0013
Epoch 5467/100000
61/63 [=====>.] - ETA: 0s - loss: 0.0010Epoch 05466:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 0.0010 - val_loss:
3.7075e-04
Epoch 5468/100000
63/63 [=====] - 0s 3ms/step - loss: 7.7976e-04 -
val_loss: 8.6497e-04
Epoch 5469/100000
59/63 [=====>..] - ETA: 0s - loss: 7.2554e-04Epoch 05468:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 7.3432e-04 -
val_loss: 4.8097e-04
Epoch 5470/100000
63/63 [=====] - 0s 3ms/step - loss: 8.0358e-04 -
val_loss: 7.1626e-04
Epoch 5471/100000
63/63 [=====] - 0s 3ms/step - loss: 6.8565e-04 -
val_loss: 6.2559e-04
Epoch 5472/100000
63/63 [=====] - 0s 4ms/step - loss: 8.2105e-04 -
val_loss: 5.0465e-04

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Epoch 5473/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.0978e-04 -  
val\_loss: 9.3355e-04  
Epoch 5474/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss:  
8.0776e-04  
Epoch 5475/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.7468e-04 -  
val\_loss: 6.2869e-04  
Epoch 5476/100000  
63/63 [=====] - 0s 4ms/step - loss: 8.0282e-04 -  
val\_loss: 7.2839e-04  
Epoch 5477/100000  
63/63 [=====] - 0s 4ms/step - loss: 8.9159e-04 -  
val\_loss: 7.1363e-04  
Epoch 5478/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.7390e-04 -  
val\_loss: 5.2622e-04  
Epoch 5479/100000  
63/63 [=====] - 0s 4ms/step - loss: 8.2979e-04 -  
val\_loss: 9.0005e-04  
Epoch 5480/100000  
63/63 [=====] - 0s 3ms/step - loss: 7.6944e-04 -  
val\_loss: 5.5766e-04  
Epoch 5481/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.6398e-04 -  
val\_loss: 8.8318e-04  
Epoch 5482/100000  
63/63 [=====] - 0s 3ms/step - loss: 7.6362e-04 -  
val\_loss: 7.3825e-04  
Epoch 5483/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.2062e-04 -  
val\_loss: 6.8126e-04  
Epoch 5484/100000  
63/63 [=====] - 0s 3ms/step - loss: 7.6151e-04 -  
val\_loss: 8.7891e-04  
Epoch 5485/100000  
63/63 [=====] - 0s 3ms/step - loss: 7.8422e-04 -  
val\_loss: 5.3502e-04  
Epoch 5486/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.5754e-04 -  
val\_loss: 6.3013e-04  
Epoch 5487/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.7254e-04 -  
val\_loss: 7.3207e-04  
Epoch 5488/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.5069e-04 -  
val\_loss: 6.7549e-04



Epoch 5489/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.3221e-04 -  
val\_loss: 9.4292e-04  
Epoch 5490/100000  
63/63 [=====] - 0s 4ms/step - loss: 9.3812e-04 -  
val\_loss: 0.0013  
Epoch 5491/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss:  
7.3052e-04  
Epoch 5492/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.0030e-04 -  
val\_loss: 0.0010  
Epoch 5493/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss:  
0.0011  
Epoch 5494/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.8483e-04 -  
val\_loss: 6.1576e-04  
Epoch 5495/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.0159e-04 -  
val\_loss: 6.4023e-04  
Epoch 5496/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.9261e-04 -  
val\_loss: 8.5993e-04  
Epoch 5497/100000  
63/63 [=====] - 0s 4ms/step - loss: 9.9447e-04 -  
val\_loss: 7.1122e-04  
Epoch 5498/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.5450e-04 -  
val\_loss: 6.9482e-04  
Epoch 5499/100000  
63/63 [=====] - 0s 4ms/step - loss: 9.0848e-04 -  
val\_loss: 5.5010e-04  
Epoch 5500/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.1090e-04 -  
val\_loss: 8.4730e-04  
Epoch 5501/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.0740e-04 -  
val\_loss: 6.4225e-04  
Epoch 5502/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.4905e-04 -  
val\_loss: 7.6120e-04  
Epoch 5503/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.4124e-04 -  
val\_loss: 8.6409e-04  
Epoch 5504/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.3793e-04 -  
val\_loss: 9.6118e-04

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Epoch 5505/100000
63/63 [=====] - 0s 3ms/step - loss: 9.8433e-04 -
val_loss: 6.0874e-04
Epoch 5506/100000
63/63 [=====] - 0s 3ms/step - loss: 7.4362e-04 -
val_loss: 8.1862e-04
Epoch 5507/100000
63/63 [=====] - 0s 3ms/step - loss: 8.6445e-04 -
val_loss: 5.8762e-04
Epoch 5508/100000
63/63 [=====] - 0s 3ms/step - loss: 7.3937e-04 -
val_loss: 7.5302e-04
Epoch 5509/100000
63/63 [=====] - 0s 3ms/step - loss: 7.5975e-04 -
val_loss: 7.0616e-04
Epoch 5510/100000
63/63 [=====] - 0s 3ms/step - loss: 8.0309e-04 -
val_loss: 5.3345e-04
Epoch 5511/100000
63/63 [=====] - 0s 3ms/step - loss: 7.9246e-04 -
val_loss: 7.8461e-04
Epoch 5512/100000
63/63 [=====] - 0s 3ms/step - loss: 9.2850e-04 -
val_loss: 6.2353e-04
Epoch 5513/100000
63/63 [=====] - 0s 3ms/step - loss: 8.1099e-04 -
val_loss: 5.4469e-04
Epoch 5514/100000
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val_loss:
0.0013
Epoch 5515/100000
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val_loss:
0.0012
Epoch 5516/100000
63/63 [=====] - 0s 3ms/step - loss: 8.6314e-04 -
val_loss: 0.0010
Epoch 5517/100000
63/63 [=====] - 0s 3ms/step - loss: 7.8179e-04 -
val_loss: 7.6410e-04
Epoch 5518/100000
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val_loss:
0.0018
Epoch 5519/100000
63/63 [=====] - 0s 3ms/step - loss: 0.0010 - val_loss:
5.6015e-04
Epoch 5520/100000
63/63 [=====] - 0s 3ms/step - loss: 7.1829e-04 -
val_loss: 9.5930e-04

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Epoch 5521/100000
63/63 [=====] - 0s 3ms/step - loss: 7.5140e-04 -
val_loss: 7.1203e-04
Epoch 5522/100000
63/63 [=====] - 0s 3ms/step - loss: 7.8301e-04 -
val_loss: 0.0010
Epoch 5523/100000
63/63 [=====] - 0s 3ms/step - loss: 6.2497e-04 -
val_loss: 6.6592e-04
Epoch 5524/100000
63/63 [=====] - 0s 3ms/step - loss: 8.3804e-04 -
val_loss: 8.1136e-04
Epoch 5525/100000
63/63 [=====] - 0s 3ms/step - loss: 9.6286e-04 -
val_loss: 0.0013
Epoch 5526/100000
63/63 [=====] - 0s 3ms/step - loss: 8.0282e-04 -
val_loss: 5.7824e-04
Epoch 5527/100000
63/63 [=====] - 0s 3ms/step - loss: 9.6014e-04 -
val_loss: 6.3313e-04
Epoch 5528/100000
63/63 [=====] - 0s 3ms/step - loss: 8.3975e-04 -
val_loss: 7.9686e-04
Epoch 5529/100000
63/63 [=====] - 0s 3ms/step - loss: 8.8600e-04 -
val_loss: 9.6152e-04
Epoch 5530/100000
63/63 [=====] - 0s 3ms/step - loss: 7.4972e-04 -
val_loss: 7.1295e-04
Epoch 5531/100000
62/63 [=====>.] - ETA: 0s - loss: 7.3235e-04Epoch 05530:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 7.3125e-04 -
val_loss: 4.8099e-04
Epoch 5532/100000
63/63 [=====] - 0s 3ms/step - loss: 6.8294e-04 -
val_loss: 0.0010
Epoch 5533/100000
63/63 [=====] - 0s 3ms/step - loss: 8.2571e-04 -
val_loss: 6.6851e-04
Epoch 5534/100000
63/63 [=====] - 0s 3ms/step - loss: 7.8845e-04 -
val_loss: 5.7962e-04
Epoch 5535/100000
63/63 [=====] - 0s 3ms/step - loss: 7.1922e-04 -
val_loss: 6.5507e-04
Epoch 5536/100000

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63/63 [=====] - 0s 3ms/step - loss: 7.5712e-04 -
val_loss: 0.0012
Epoch 5537/100000
63/63 [=====] - 0s 4ms/step - loss: 9.0811e-04 -
val_loss: 0.0010
Epoch 5538/100000
63/63 [=====] - 0s 4ms/step - loss: 7.6440e-04 -
val_loss: 8.8178e-04
Epoch 5539/100000
63/63 [=====] - 0s 4ms/step - loss: 7.1015e-04 -
val_loss: 6.8073e-04
Epoch 5540/100000
63/63 [=====] - 0s 3ms/step - loss: 7.6701e-04 -
val_loss: 8.1577e-04
Epoch 5541/100000
63/63 [=====] - 0s 3ms/step - loss: 8.3228e-04 -
val_loss: 0.0013
Epoch 5542/100000
63/63 [=====] - 0s 4ms/step - loss: 7.8610e-04 -
val_loss: 6.9594e-04
Epoch 5543/100000
63/63 [=====] - 0s 3ms/step - loss: 9.9668e-04 -
val_loss: 0.0012
Epoch 5544/100000
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val_loss:
6.9552e-04
Epoch 5545/100000
63/63 [=====] - 0s 3ms/step - loss: 8.3542e-04 -
val_loss: 0.0011
Epoch 5546/100000
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val_loss:
0.0011
Epoch 5547/100000
63/63 [=====] - 0s 4ms/step - loss: 9.4868e-04 -
val_loss: 0.0014
Epoch 5548/100000
63/63 [=====] - 0s 4ms/step - loss: 9.3692e-04 -
val_loss: 6.4395e-04
Epoch 5549/100000
63/63 [=====] - 0s 4ms/step - loss: 7.7004e-04 -
val_loss: 6.4842e-04
Epoch 5550/100000
63/63 [=====] - 0s 5ms/step - loss: 8.4314e-04 -
val_loss: 0.0011
Epoch 5551/100000
63/63 [=====] - 0s 5ms/step - loss: 7.8310e-04 -
val_loss: 8.2055e-04
Epoch 5552/100000

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63/63 [=====] - 0s 5ms/step - loss: 7.0275e-04 -
val_loss: 7.3646e-04
Epoch 5553/100000
63/63 [=====] - 0s 5ms/step - loss: 0.0011 - val_loss:
9.0562e-04
Epoch 5554/100000
63/63 [=====] - 0s 4ms/step - loss: 7.1848e-04 -
val_loss: 8.9573e-04
Epoch 5555/100000
63/63 [=====] - 0s 4ms/step - loss: 8.1436e-04 -
val_loss: 0.0011
Epoch 5556/100000
63/63 [=====] - 0s 4ms/step - loss: 8.8808e-04 -
val_loss: 7.2504e-04
Epoch 5557/100000
63/63 [=====] - 0s 4ms/step - loss: 0.0020 - val_loss:
0.0016
Epoch 5558/100000
63/63 [=====] - 0s 4ms/step - loss: 9.7527e-04 -
val_loss: 9.1943e-04
Epoch 5559/100000
63/63 [=====] - 0s 4ms/step - loss: 8.7361e-04 -
val_loss: 8.2260e-04
Epoch 5560/100000
63/63 [=====] - 0s 3ms/step - loss: 8.9114e-04 -
val_loss: 8.1306e-04
Epoch 5561/100000
63/63 [=====] - 0s 4ms/step - loss: 7.6275e-04 -
val_loss: 8.0150e-04
Epoch 5562/100000
63/63 [=====] - 0s 3ms/step - loss: 8.6397e-04 -
val_loss: 8.2163e-04
Epoch 5563/100000
63/63 [=====] - 0s 4ms/step - loss: 8.3287e-04 -
val_loss: 8.3824e-04
Epoch 5564/100000
63/63 [=====] - 0s 3ms/step - loss: 8.9025e-04 -
val_loss: 0.0010
Epoch 5565/100000
63/63 [=====] - 0s 3ms/step - loss: 7.6703e-04 -
val_loss: 8.2701e-04
Epoch 5566/100000
63/63 [=====] - 0s 4ms/step - loss: 6.3955e-04 -
val_loss: 8.3856e-04
Epoch 5567/100000
63/63 [=====] - 0s 3ms/step - loss: 6.8702e-04 -
val_loss: 8.3395e-04
Epoch 5568/100000

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63/63 [=====] - 0s 4ms/step - loss: 7.3526e-04 -
val_loss: 9.8882e-04
Epoch 5569/100000
63/63 [=====] - 0s 4ms/step - loss: 7.6470e-04 -
val_loss: 0.0011
Epoch 5570/100000
63/63 [=====] - 0s 4ms/step - loss: 8.2645e-04 -
val_loss: 8.9806e-04
Epoch 5571/100000
63/63 [=====] - 0s 4ms/step - loss: 9.3360e-04 -
val_loss: 7.5171e-04
Epoch 5572/100000
63/63 [=====] - 0s 4ms/step - loss: 9.6483e-04 -
val_loss: 0.0020
Epoch 5573/100000
63/63 [=====] - 0s 4ms/step - loss: 9.0294e-04 -
val_loss: 7.2694e-04
Epoch 5574/100000
63/63 [=====] - 0s 3ms/step - loss: 7.1158e-04 -
val_loss: 6.7038e-04
Epoch 5575/100000
63/63 [=====] - 0s 3ms/step - loss: 0.0010 - val_loss:
8.5706e-04
Epoch 5576/100000
63/63 [=====] - 0s 4ms/step - loss: 9.9533e-04 -
val_loss: 0.0010
Epoch 5577/100000
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val_loss:
0.0010
Epoch 5578/100000
63/63 [=====] - 0s 4ms/step - loss: 8.1945e-04 -
val_loss: 8.6136e-04
Epoch 5579/100000
63/63 [=====] - 0s 4ms/step - loss: 7.8844e-04 -
val_loss: 8.7915e-04
Epoch 5580/100000
63/63 [=====] - 0s 5ms/step - loss: 9.4484e-04 -
val_loss: 0.0011
Epoch 5581/100000
63/63 [=====] - 0s 4ms/step - loss: 0.0010 - val_loss:
6.2948e-04
Epoch 5582/100000
63/63 [=====] - 0s 4ms/step - loss: 6.8510e-04 -
val_loss: 8.3639e-04
Epoch 5583/100000
63/63 [=====] - 0s 3ms/step - loss: 8.3506e-04 -
val_loss: 9.1448e-04
Epoch 5584/100000

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63/63 [=====] - 0s 4ms/step - loss: 9.1030e-04 -
val_loss: 9.6594e-04
Epoch 5585/100000
63/63 [=====] - 0s 4ms/step - loss: 9.2907e-04 -
val_loss: 0.0012
Epoch 5586/100000
63/63 [=====] - 0s 4ms/step - loss: 9.3383e-04 -
val_loss: 6.0161e-04
Epoch 5587/100000
63/63 [=====] - 0s 4ms/step - loss: 9.2350e-04 -
val_loss: 0.0010
Epoch 5588/100000
63/63 [=====] - 0s 3ms/step - loss: 0.0010 - val_loss:
8.1385e-04
Epoch 5589/100000
63/63 [=====] - 0s 4ms/step - loss: 9.7140e-04 -
val_loss: 0.0012
Epoch 5590/100000
63/63 [=====] - 0s 4ms/step - loss: 0.0013 - val_loss:
9.8953e-04
Epoch 5591/100000
63/63 [=====] - 0s 4ms/step - loss: 7.5227e-04 -
val_loss: 8.8999e-04
Epoch 5592/100000
63/63 [=====] - 0s 3ms/step - loss: 7.6078e-04 -
val_loss: 7.5062e-04
Epoch 5593/100000
63/63 [=====] - 0s 3ms/step - loss: 6.8645e-04 -
val_loss: 8.1456e-04
Epoch 5594/100000
63/63 [=====] - 0s 3ms/step - loss: 7.8531e-04 -
val_loss: 0.0012
Epoch 5595/100000
63/63 [=====] - 0s 3ms/step - loss: 8.9807e-04 -
val_loss: 8.3050e-04
Epoch 5596/100000
63/63 [=====] - 0s 3ms/step - loss: 8.3040e-04 -
val_loss: 5.3607e-04
Epoch 5597/100000
63/63 [=====] - 0s 4ms/step - loss: 8.9339e-04 -
val_loss: 0.0013
Epoch 5598/100000
63/63 [=====] - 0s 4ms/step - loss: 0.0010 - val_loss:
9.2293e-04
Epoch 5599/100000
63/63 [=====] - 0s 4ms/step - loss: 8.4105e-04 -
val_loss: 8.3562e-04
Epoch 5600/100000

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63/63 [=====] - 0s 4ms/step - loss: 7.6700e-04 -
val_loss: 8.3920e-04
Epoch 5601/100000
63/63 [=====] - 0s 3ms/step - loss: 9.3181e-04 -
val_loss: 9.1583e-04
Epoch 5602/100000
63/63 [=====] - 0s 4ms/step - loss: 7.5412e-04 -
val_loss: 7.9873e-04
Epoch 5603/100000
63/63 [=====] - 0s 4ms/step - loss: 8.7104e-04 -
val_loss: 8.0306e-04
Epoch 5604/100000
63/63 [=====] - 0s 4ms/step - loss: 8.5505e-04 -
val_loss: 0.0010
Epoch 5605/100000
63/63 [=====] - 0s 3ms/step - loss: 7.6478e-04 -
val_loss: 7.0585e-04
Epoch 5606/100000
63/63 [=====] - 0s 4ms/step - loss: 8.5966e-04 -
val_loss: 9.5686e-04
Epoch 5607/100000
63/63 [=====] - 0s 4ms/step - loss: 9.4700e-04 -
val_loss: 9.7540e-04
Epoch 5608/100000
63/63 [=====] - 0s 4ms/step - loss: 7.2387e-04 -
val_loss: 7.1713e-04
Epoch 5609/100000
63/63 [=====] - 0s 3ms/step - loss: 0.0010 - val_loss:
9.3037e-04
Epoch 5610/100000
63/63 [=====] - 0s 3ms/step - loss: 9.9645e-04 -
val_loss: 7.8086e-04
Epoch 5611/100000
63/63 [=====] - 0s 4ms/step - loss: 8.9600e-04 -
val_loss: 6.4316e-04
Epoch 5612/100000
63/63 [=====] - 0s 4ms/step - loss: 7.6311e-04 -
val_loss: 0.0010
Epoch 5613/100000
63/63 [=====] - 0s 3ms/step - loss: 9.6386e-04 -
val_loss: 9.1475e-04
Epoch 5614/100000
63/63 [=====] - 0s 3ms/step - loss: 7.0113e-04 -
val_loss: 7.1882e-04
Epoch 5615/100000
63/63 [=====] - 0s 3ms/step - loss: 8.1560e-04 -
val_loss: 9.9176e-04
Epoch 5616/100000

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63/63 [=====] - 0s 3ms/step - loss: 8.0818e-04 -
val_loss: 9.3462e-04
Epoch 5617/100000
63/63 [=====] - 0s 4ms/step - loss: 0.0010 - val_loss:
0.0011
Epoch 5618/100000
63/63 [=====] - 0s 3ms/step - loss: 8.3834e-04 -
val_loss: 8.4464e-04
Epoch 5619/100000
63/63 [=====] - 0s 4ms/step - loss: 0.0010 - val_loss:
0.0011
Epoch 5620/100000
63/63 [=====] - 0s 4ms/step - loss: 0.0010 - val_loss:
0.0011
Epoch 5621/100000
63/63 [=====] - 0s 4ms/step - loss: 9.0998e-04 -
val_loss: 0.0011
Epoch 5622/100000
63/63 [=====] - 0s 4ms/step - loss: 8.8441e-04 -
val_loss: 0.0011
Epoch 5623/100000
63/63 [=====] - 0s 4ms/step - loss: 0.0010 - val_loss:
8.7311e-04
Epoch 5624/100000
63/63 [=====] - 0s 3ms/step - loss: 0.0010 - val_loss:
0.0014
Epoch 5625/100000
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val_loss:
7.9571e-04
Epoch 5626/100000
63/63 [=====] - 0s 4ms/step - loss: 9.7238e-04 -
val_loss: 9.5830e-04
Epoch 5627/100000
63/63 [=====] - 0s 4ms/step - loss: 0.0010 - val_loss:
7.9767e-04
Epoch 5628/100000
63/63 [=====] - 0s 4ms/step - loss: 0.0010 - val_loss:
0.0019
Epoch 5629/100000
63/63 [=====] - 0s 4ms/step - loss: 0.0012 - val_loss:
0.0010
Epoch 5630/100000
63/63 [=====] - 0s 4ms/step - loss: 9.5387e-04 -
val_loss: 0.0015
Epoch 5631/100000
63/63 [=====] - 0s 4ms/step - loss: 9.6007e-04 -
val_loss: 5.5781e-04
Epoch 5632/100000

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63/63 [=====] - 0s 3ms/step - loss: 0.0010 - val_loss:
9.8687e-04
Epoch 5633/100000
63/63 [=====] - 0s 4ms/step - loss: 9.6461e-04 -
val_loss: 8.3987e-04
Epoch 5634/100000
63/63 [=====] - 0s 4ms/step - loss: 7.9114e-04 -
val_loss: 0.0012
Epoch 5635/100000
63/63 [=====] - 0s 3ms/step - loss: 9.3769e-04 -
val_loss: 6.7865e-04
Epoch 5636/100000
63/63 [=====] - 0s 3ms/step - loss: 9.3305e-04 -
val_loss: 6.6921e-04
Epoch 5637/100000
63/63 [=====] - 0s 4ms/step - loss: 8.1975e-04 -
val_loss: 9.7465e-04
Epoch 5638/100000
63/63 [=====] - 0s 3ms/step - loss: 9.7220e-04 -
val_loss: 9.7780e-04
Epoch 5639/100000
63/63 [=====] - 0s 4ms/step - loss: 8.2642e-04 -
val_loss: 8.0603e-04
Epoch 5640/100000
63/63 [=====] - 0s 4ms/step - loss: 9.7200e-04 -
val_loss: 7.6141e-04
Epoch 5641/100000
63/63 [=====] - 0s 4ms/step - loss: 0.0010 - val_loss:
6.1044e-04
Epoch 5642/100000
63/63 [=====] - 0s 4ms/step - loss: 7.6135e-04 -
val_loss: 8.3340e-04
Epoch 5643/100000
63/63 [=====] - 0s 4ms/step - loss: 7.3862e-04 -
val_loss: 7.3674e-04
Epoch 5644/100000
63/63 [=====] - 0s 4ms/step - loss: 8.6025e-04 -
val_loss: 7.5779e-04
Epoch 5645/100000
63/63 [=====] - 0s 4ms/step - loss: 8.6308e-04 -
val_loss: 6.6745e-04
Epoch 5646/100000
63/63 [=====] - 0s 4ms/step - loss: 7.8320e-04 -
val_loss: 6.2116e-04
Epoch 5647/100000
63/63 [=====] - 0s 4ms/step - loss: 8.2471e-04 -
val_loss: 6.6781e-04
Epoch 5648/100000

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63/63 [=====] - 0s 4ms/step - loss: 8.4923e-04 -
val_loss: 7.2671e-04
Epoch 5649/100000
63/63 [=====] - 0s 4ms/step - loss: 9.0616e-04 -
val_loss: 0.0013
Epoch 5650/100000
63/63 [=====] - 0s 5ms/step - loss: 9.4940e-04 -
val_loss: 8.9897e-04
Epoch 5651/100000
63/63 [=====] - 0s 3ms/step - loss: 7.9593e-04 -
val_loss: 8.5346e-04
Epoch 5652/100000
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val_loss:
8.7070e-04
Epoch 5653/100000
63/63 [=====] - 0s 3ms/step - loss: 7.7651e-04 -
val_loss: 0.0011
Epoch 5654/100000
63/63 [=====] - 0s 3ms/step - loss: 8.1555e-04 -
val_loss: 6.8020e-04
Epoch 5655/100000
63/63 [=====] - 0s 3ms/step - loss: 9.4691e-04 -
val_loss: 8.2220e-04
Epoch 5656/100000
63/63 [=====] - 0s 3ms/step - loss: 9.0424e-04 -
val_loss: 8.6544e-04
Epoch 5657/100000
63/63 [=====] - 0s 3ms/step - loss: 8.3656e-04 -
val_loss: 0.0013
Epoch 5658/100000
63/63 [=====] - 0s 3ms/step - loss: 8.6984e-04 -
val_loss: 0.0011
Epoch 5659/100000
63/63 [=====] - 0s 3ms/step - loss: 8.8918e-04 -
val_loss: 0.0014
Epoch 5660/100000
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val_loss:
6.3831e-04
Epoch 5661/100000
63/63 [=====] - 0s 3ms/step - loss: 7.9214e-04 -
val_loss: 8.4657e-04
Epoch 5662/100000
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val_loss:
0.0013
Epoch 5663/100000
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val_loss:
9.4578e-04
Epoch 5664/100000

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63/63 [=====] - 0s 4ms/step - loss: 9.8207e-04 -
val_loss: 7.0239e-04
Epoch 5665/100000
63/63 [=====] - 0s 4ms/step - loss: 8.0690e-04 -
val_loss: 9.3832e-04
Epoch 5666/100000
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val_loss:
8.1945e-04
Epoch 5667/100000
63/63 [=====] - 0s 4ms/step - loss: 8.8543e-04 -
val_loss: 7.1806e-04
Epoch 5668/100000
63/63 [=====] - 0s 4ms/step - loss: 9.8426e-04 -
val_loss: 0.0014
Epoch 5669/100000
63/63 [=====] - 0s 3ms/step - loss: 7.2936e-04 -
val_loss: 7.1809e-04
Epoch 5670/100000
63/63 [=====] - 0s 3ms/step - loss: 8.3439e-04 -
val_loss: 8.9329e-04
Epoch 5671/100000
63/63 [=====] - 0s 3ms/step - loss: 6.6394e-04 -
val_loss: 9.0175e-04
Epoch 5672/100000
63/63 [=====] - 0s 3ms/step - loss: 7.0825e-04 -
val_loss: 6.0445e-04
Epoch 5673/100000
63/63 [=====] - 0s 4ms/step - loss: 9.2331e-04 -
val_loss: 0.0011
Epoch 5674/100000
63/63 [=====] - 0s 4ms/step - loss: 8.5563e-04 -
val_loss: 0.0010
Epoch 5675/100000
63/63 [=====] - 0s 3ms/step - loss: 7.9519e-04 -
val_loss: 8.7398e-04
Epoch 5676/100000
63/63 [=====] - 0s 4ms/step - loss: 9.1193e-04 -
val_loss: 0.0010
Epoch 5677/100000
63/63 [=====] - 0s 3ms/step - loss: 9.0073e-04 -
val_loss: 9.3498e-04
Epoch 5678/100000
63/63 [=====] - 0s 3ms/step - loss: 8.5425e-04 -
val_loss: 8.8808e-04
Epoch 5679/100000
63/63 [=====] - 0s 4ms/step - loss: 9.4746e-04 -
val_loss: 5.7715e-04
Epoch 5680/100000

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63/63 [=====] - 0s 4ms/step - loss: 9.1467e-04 -
val_loss: 6.2575e-04
Epoch 5681/100000
63/63 [=====] - 0s 4ms/step - loss: 9.0606e-04 -
val_loss: 8.7905e-04
Epoch 5682/100000
63/63 [=====] - 0s 4ms/step - loss: 9.3327e-04 -
val_loss: 8.3383e-04
Epoch 5683/100000
63/63 [=====] - 0s 4ms/step - loss: 9.4647e-04 -
val_loss: 0.0012
Epoch 5684/100000
63/63 [=====] - 0s 3ms/step - loss: 7.7969e-04 -
val_loss: 9.2372e-04
Epoch 5685/100000
63/63 [=====] - 0s 3ms/step - loss: 7.3631e-04 -
val_loss: 7.2826e-04
Epoch 5686/100000
63/63 [=====] - 0s 4ms/step - loss: 7.3026e-04 -
val_loss: 0.0012
Epoch 5687/100000
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val_loss:
0.0013
Epoch 5688/100000
63/63 [=====] - 0s 3ms/step - loss: 8.1956e-04 -
val_loss: 5.6030e-04
Epoch 5689/100000
63/63 [=====] - 0s 3ms/step - loss: 8.4255e-04 -
val_loss: 0.0014
Epoch 5690/100000
63/63 [=====] - 0s 3ms/step - loss: 9.6301e-04 -
val_loss: 8.6873e-04
Epoch 5691/100000
63/63 [=====] - 0s 4ms/step - loss: 9.3028e-04 -
val_loss: 8.6466e-04
Epoch 5692/100000
63/63 [=====] - 0s 3ms/step - loss: 7.0655e-04 -
val_loss: 8.2504e-04
Epoch 5693/100000
63/63 [=====] - 0s 3ms/step - loss: 8.7492e-04 -
val_loss: 9.7957e-04
Epoch 5694/100000
63/63 [=====] - 0s 4ms/step - loss: 8.9292e-04 -
val_loss: 7.9398e-04
Epoch 5695/100000
63/63 [=====] - 0s 4ms/step - loss: 7.9633e-04 -
val_loss: 0.0010
Epoch 5696/100000

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63/63 [=====] - 0s 4ms/step - loss: 7.5282e-04 -
val_loss: 7.2606e-04
Epoch 5697/100000
63/63 [=====] - 0s 4ms/step - loss: 8.6018e-04 -
val_loss: 6.1226e-04
Epoch 5698/100000
63/63 [=====] - 0s 4ms/step - loss: 7.1824e-04 -
val_loss: 7.4138e-04
Epoch 5699/100000
63/63 [=====] - 0s 4ms/step - loss: 8.1829e-04 -
val_loss: 6.8115e-04
Epoch 5700/100000
63/63 [=====] - 0s 4ms/step - loss: 7.6221e-04 -
val_loss: 0.0012
Epoch 5701/100000
56/63 [=====>...] - ETA: 0s - loss: 7.4386e-04Epoch 05700:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 7.9505e-04 -
val_loss: 4.9767e-04
Epoch 5702/100000
63/63 [=====] - 0s 3ms/step - loss: 9.2511e-04 -
val_loss: 0.0012
Epoch 5703/100000
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val_loss:
8.2238e-04
Epoch 5704/100000
63/63 [=====] - 0s 4ms/step - loss: 7.9113e-04 -
val_loss: 8.6768e-04
Epoch 5705/100000
63/63 [=====] - 0s 4ms/step - loss: 9.1163e-04 -
val_loss: 8.4126e-04
Epoch 5706/100000
63/63 [=====] - 0s 4ms/step - loss: 8.4725e-04 -
val_loss: 9.1382e-04
Epoch 5707/100000
63/63 [=====] - 0s 4ms/step - loss: 8.3448e-04 -
val_loss: 0.0011
Epoch 5708/100000
63/63 [=====] - 0s 4ms/step - loss: 9.6564e-04 -
val_loss: 5.8113e-04
Epoch 5709/100000
63/63 [=====] - 0s 3ms/step - loss: 6.6162e-04 -
val_loss: 8.0784e-04
Epoch 5710/100000
63/63 [=====] - 0s 4ms/step - loss: 7.7877e-04 -
val_loss: 6.9276e-04
Epoch 5711/100000
63/63 [=====] - 0s 4ms/step - loss: 8.5805e-04 -

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val_loss: 6.8248e-04
Epoch 5712/100000
63/63 [=====] - 0s 4ms/step - loss: 9.3952e-04 -
val_loss: 6.5046e-04
Epoch 5713/100000
63/63 [=====] - 0s 4ms/step - loss: 0.0010 - val_loss:
0.0011
Epoch 5714/100000
63/63 [=====] - 0s 4ms/step - loss: 8.9739e-04 -
val_loss: 9.1706e-04
Epoch 5715/100000
63/63 [=====] - 0s 3ms/step - loss: 0.0010 - val_loss:
0.0011
Epoch 5716/100000
63/63 [=====] - 0s 4ms/step - loss: 9.2240e-04 -
val_loss: 7.5216e-04
Epoch 5717/100000
63/63 [=====] - 0s 4ms/step - loss: 8.6432e-04 -
val_loss: 9.9622e-04
Epoch 5718/100000
63/63 [=====] - 0s 4ms/step - loss: 8.5475e-04 -
val_loss: 6.7955e-04
Epoch 5719/100000
63/63 [=====] - 0s 3ms/step - loss: 7.4294e-04 -
val_loss: 6.9799e-04
Epoch 5720/100000
63/63 [=====] - 0s 4ms/step - loss: 9.7546e-04 -
val_loss: 7.4485e-04
Epoch 5721/100000
63/63 [=====] - 0s 4ms/step - loss: 8.3681e-04 -
val_loss: 6.1722e-04
Epoch 5722/100000
63/63 [=====] - 0s 4ms/step - loss: 0.0010 - val_loss:
6.5792e-04
Epoch 5723/100000
63/63 [=====] - 0s 4ms/step - loss: 8.8994e-04 -
val_loss: 8.4807e-04
Epoch 5724/100000
63/63 [=====] - 0s 4ms/step - loss: 9.3237e-04 -
val_loss: 0.0010
Epoch 5725/100000
63/63 [=====] - 0s 3ms/step - loss: 8.6039e-04 -
val_loss: 7.2266e-04
Epoch 5726/100000
63/63 [=====] - 0s 3ms/step - loss: 9.4205e-04 -
val_loss: 9.3293e-04
Epoch 5727/100000
63/63 [=====] - 0s 3ms/step - loss: 7.3480e-04 -

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val_loss: 7.5217e-04
Epoch 5728/100000
63/63 [=====] - 0s 3ms/step - loss: 8.4048e-04 -
val_loss: 7.8349e-04
Epoch 5729/100000
63/63 [=====] - 0s 3ms/step - loss: 9.8708e-04 -
val_loss: 0.0012
Epoch 5730/100000
63/63 [=====] - 0s 3ms/step - loss: 7.7340e-04 -
val_loss: 9.1421e-04
Epoch 5731/100000
63/63 [=====] - 0s 3ms/step - loss: 8.5896e-04 -
val_loss: 9.7049e-04
Epoch 5732/100000
63/63 [=====] - 0s 4ms/step - loss: 8.8515e-04 -
val_loss: 0.0011
Epoch 5733/100000
63/63 [=====] - 0s 3ms/step - loss: 7.8453e-04 -
val_loss: 0.0014
Epoch 5734/100000
63/63 [=====] - 0s 4ms/step - loss: 8.5402e-04 -
val_loss: 0.0014
Epoch 5735/100000
63/63 [=====] - 0s 4ms/step - loss: 9.5327e-04 -
val_loss: 0.0012
Epoch 5736/100000
63/63 [=====] - 0s 3ms/step - loss: 8.9050e-04 -
val_loss: 0.0012
Epoch 5737/100000
63/63 [=====] - 0s 4ms/step - loss: 8.3720e-04 -
val_loss: 7.5627e-04
Epoch 5738/100000
63/63 [=====] - 0s 4ms/step - loss: 7.9335e-04 -
val_loss: 7.5486e-04
Epoch 5739/100000
63/63 [=====] - 0s 4ms/step - loss: 7.2522e-04 -
val_loss: 8.5594e-04
Epoch 5740/100000
63/63 [=====] - 0s 4ms/step - loss: 7.4511e-04 -
val_loss: 8.8977e-04
Epoch 5741/100000
63/63 [=====] - 0s 4ms/step - loss: 7.6894e-04 -
val_loss: 0.0014
Epoch 5742/100000
63/63 [=====] - 0s 3ms/step - loss: 8.2967e-04 -
val_loss: 0.0011
Epoch 5743/100000
63/63 [=====] - 0s 4ms/step - loss: 9.8616e-04 -

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val_loss: 0.0011
Epoch 5744/100000
63/63 [=====] - 0s 3ms/step - loss: 8.5932e-04 -
val_loss: 0.0014
Epoch 5745/100000
63/63 [=====] - 0s 3ms/step - loss: 7.7388e-04 -
val_loss: 7.7912e-04
Epoch 5746/100000
63/63 [=====] - 0s 3ms/step - loss: 8.3264e-04 -
val_loss: 0.0014
Epoch 5747/100000
63/63 [=====] - 0s 3ms/step - loss: 9.3745e-04 -
val_loss: 0.0014
Epoch 5748/100000
63/63 [=====] - 0s 3ms/step - loss: 7.3002e-04 -
val_loss: 8.0127e-04
Epoch 5749/100000
63/63 [=====] - 0s 4ms/step - loss: 7.1494e-04 -
val_loss: 7.8666e-04
Epoch 5750/100000
63/63 [=====] - 0s 3ms/step - loss: 5.7014e-04 -
val_loss: 8.4009e-04
Epoch 5751/100000
63/63 [=====] - 0s 3ms/step - loss: 6.3361e-04 -
val_loss: 0.0013
Epoch 5752/100000
63/63 [=====] - 0s 3ms/step - loss: 6.4590e-04 -
val_loss: 0.0014
Epoch 5753/100000
63/63 [=====] - 0s 3ms/step - loss: 7.6378e-04 -
val_loss: 9.1649e-04
Epoch 5754/100000
63/63 [=====] - 0s 3ms/step - loss: 6.3276e-04 -
val_loss: 0.0010
Epoch 5755/100000
63/63 [=====] - 0s 3ms/step - loss: 6.4280e-04 -
val_loss: 8.1005e-04
Epoch 5756/100000
63/63 [=====] - 0s 3ms/step - loss: 6.2364e-04 -
val_loss: 0.0011
Epoch 5757/100000
63/63 [=====] - 0s 4ms/step - loss: 6.7329e-04 -
val_loss: 9.5657e-04
Epoch 5758/100000
63/63 [=====] - 0s 4ms/step - loss: 7.9536e-04 -
val_loss: 6.4776e-04
Epoch 5759/100000
63/63 [=====] - 0s 4ms/step - loss: 6.5956e-04 -

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val_loss: 9.1680e-04
Epoch 5760/100000
63/63 [=====] - 0s 4ms/step - loss: 8.7714e-04 -
val_loss: 0.0010
Epoch 5761/100000
63/63 [=====] - 0s 3ms/step - loss: 7.3976e-04 -
val_loss: 0.0012
Epoch 5762/100000
63/63 [=====] - 0s 3ms/step - loss: 9.0583e-04 -
val_loss: 0.0013
Epoch 5763/100000
63/63 [=====] - 0s 3ms/step - loss: 8.2893e-04 -
val_loss: 0.0012
Epoch 5764/100000
63/63 [=====] - 0s 3ms/step - loss: 9.9175e-04 -
val_loss: 0.0010
Epoch 5765/100000
63/63 [=====] - 0s 3ms/step - loss: 6.4212e-04 -
val_loss: 6.5762e-04
Epoch 5766/100000
63/63 [=====] - 0s 4ms/step - loss: 7.0553e-04 -
val_loss: 7.6256e-04
Epoch 5767/100000
63/63 [=====] - 0s 3ms/step - loss: 7.7394e-04 -
val_loss: 8.6729e-04
Epoch 5768/100000
63/63 [=====] - 0s 3ms/step - loss: 7.6920e-04 -
val_loss: 9.1561e-04
Epoch 5769/100000
63/63 [=====] - 0s 3ms/step - loss: 7.8254e-04 -
val_loss: 0.0013
Epoch 5770/100000
63/63 [=====] - 0s 3ms/step - loss: 6.6013e-04 -
val_loss: 8.4533e-04
Epoch 5771/100000
63/63 [=====] - 0s 3ms/step - loss: 7.4293e-04 -
val_loss: 8.5142e-04
Epoch 5772/100000
63/63 [=====] - 0s 3ms/step - loss: 6.8779e-04 -
val_loss: 8.8862e-04
Epoch 5773/100000
63/63 [=====] - 0s 4ms/step - loss: 7.4021e-04 -
val_loss: 8.9537e-04
Epoch 5774/100000
63/63 [=====] - 0s 3ms/step - loss: 9.9747e-04 -
val_loss: 8.2958e-04
Epoch 5775/100000
63/63 [=====] - 0s 4ms/step - loss: 8.1597e-04 -

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val_loss: 9.6430e-04
Epoch 5776/100000
63/63 [=====] - 0s 3ms/step - loss: 9.4258e-04 -
val_loss: 9.2263e-04
Epoch 5777/100000
63/63 [=====] - 0s 4ms/step - loss: 8.4791e-04 -
val_loss: 0.0010
Epoch 5778/100000
63/63 [=====] - 0s 4ms/step - loss: 7.4954e-04 -
val_loss: 6.0699e-04
Epoch 5779/100000
63/63 [=====] - 0s 4ms/step - loss: 8.3336e-04 -
val_loss: 6.9733e-04
Epoch 5780/100000
63/63 [=====] - 0s 3ms/step - loss: 9.7873e-04 -
val_loss: 7.1632e-04
Epoch 5781/100000
63/63 [=====] - 0s 3ms/step - loss: 8.0066e-04 -
val_loss: 7.2708e-04
Epoch 5782/100000
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val_loss:
8.6881e-04
Epoch 5783/100000
63/63 [=====] - 0s 3ms/step - loss: 7.0575e-04 -
val_loss: 7.2430e-04
Epoch 5784/100000
63/63 [=====] - 0s 3ms/step - loss: 6.3770e-04 -
val_loss: 7.7221e-04
Epoch 5785/100000
63/63 [=====] - 0s 3ms/step - loss: 6.3627e-04 -
val_loss: 8.1586e-04
Epoch 5786/100000
63/63 [=====] - 0s 3ms/step - loss: 8.9415e-04 -
val_loss: 0.0013
Epoch 5787/100000
63/63 [=====] - 0s 3ms/step - loss: 6.3890e-04 -
val_loss: 9.1397e-04
Epoch 5788/100000
63/63 [=====] - 0s 3ms/step - loss: 7.3885e-04 -
val_loss: 0.0014
Epoch 5789/100000
63/63 [=====] - 0s 3ms/step - loss: 9.7147e-04 -
val_loss: 0.0014
Epoch 5790/100000
63/63 [=====] - 0s 3ms/step - loss: 7.1048e-04 -
val_loss: 0.0010
Epoch 5791/100000
63/63 [=====] - 0s 4ms/step - loss: 7.0685e-04 -

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val_loss: 6.0003e-04
Epoch 5792/100000
63/63 [=====] - 0s 3ms/step - loss: 8.8664e-04 -
val_loss: 0.0014
Epoch 5793/100000
63/63 [=====] - 0s 3ms/step - loss: 9.2697e-04 -
val_loss: 0.0010
Epoch 5794/100000
63/63 [=====] - 0s 3ms/step - loss: 0.0010 - val_loss:
7.6223e-04
Epoch 5795/100000
63/63 [=====] - 0s 3ms/step - loss: 8.6706e-04 -
val_loss: 7.9749e-04
Epoch 5796/100000
63/63 [=====] - 0s 3ms/step - loss: 7.1964e-04 -
val_loss: 6.0695e-04
Epoch 5797/100000
63/63 [=====] - 0s 4ms/step - loss: 6.8145e-04 -
val_loss: 0.0016
Epoch 5798/100000
63/63 [=====] - 0s 3ms/step - loss: 9.2211e-04 -
val_loss: 6.7486e-04
Epoch 5799/100000
63/63 [=====] - 0s 3ms/step - loss: 6.8707e-04 -
val_loss: 7.6162e-04
Epoch 5800/100000
63/63 [=====] - 0s 4ms/step - loss: 6.6839e-04 -
val_loss: 0.0015
Epoch 5801/100000
63/63 [=====] - 0s 3ms/step - loss: 7.9293e-04 -
val_loss: 9.8469e-04
Epoch 5802/100000
63/63 [=====] - 0s 3ms/step - loss: 6.7711e-04 -
val_loss: 9.5401e-04
Epoch 5803/100000
63/63 [=====] - 0s 3ms/step - loss: 6.6998e-04 -
val_loss: 0.0011
Epoch 5804/100000
63/63 [=====] - 0s 3ms/step - loss: 7.2902e-04 -
val_loss: 9.2135e-04
Epoch 5805/100000
63/63 [=====] - 0s 3ms/step - loss: 7.7561e-04 -
val_loss: 6.5945e-04
Epoch 5806/100000
63/63 [=====] - 0s 3ms/step - loss: 6.5028e-04 -
val_loss: 0.0011
Epoch 5807/100000
63/63 [=====] - 0s 3ms/step - loss: 6.2814e-04 -

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val_loss: 8.9355e-04
Epoch 5808/100000
63/63 [=====] - 0s 3ms/step - loss: 5.7503e-04 -
val_loss: 0.0011
Epoch 5809/100000
63/63 [=====] - 0s 3ms/step - loss: 5.5332e-04 -
val_loss: 9.7522e-04
Epoch 5810/100000
63/63 [=====] - 0s 3ms/step - loss: 5.6675e-04 -
val_loss: 8.3802e-04
Epoch 5811/100000
63/63 [=====] - 0s 3ms/step - loss: 5.9138e-04 -
val_loss: 8.2134e-04
Epoch 5812/100000
63/63 [=====] - 0s 3ms/step - loss: 5.7269e-04 -
val_loss: 0.0015
Epoch 5813/100000
63/63 [=====] - 0s 3ms/step - loss: 6.1417e-04 -
val_loss: 8.2656e-04
Epoch 5814/100000
63/63 [=====] - 0s 4ms/step - loss: 5.6463e-04 -
val_loss: 6.8404e-04
Epoch 5815/100000
63/63 [=====] - 0s 3ms/step - loss: 5.9341e-04 -
val_loss: 7.0687e-04
Epoch 5816/100000
63/63 [=====] - 0s 3ms/step - loss: 6.6183e-04 -
val_loss: 6.0745e-04
Epoch 5817/100000
63/63 [=====] - 0s 3ms/step - loss: 6.7585e-04 -
val_loss: 5.3555e-04
Epoch 5818/100000
40/63 [=====>...] - ETA: 0s - loss: 9.0695e-04Epoch 05817:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 8.1186e-04 -
val_loss: 4.0524e-04
Epoch 5819/100000
63/63 [=====] - 0s 3ms/step - loss: 7.2973e-04 -
val_loss: 0.0014
Epoch 5820/100000
63/63 [=====] - 0s 3ms/step - loss: 6.8801e-04 -
val_loss: 7.1356e-04
Epoch 5821/100000
63/63 [=====] - 0s 3ms/step - loss: 7.5066e-04 -
val_loss: 8.2589e-04
Epoch 5822/100000
63/63 [=====] - 0s 3ms/step - loss: 7.1544e-04 -
val_loss: 9.4793e-04

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Epoch 5823/100000  
63/63 [=====] - 0s 4ms/step - loss: 7.0066e-04 -  
val\_loss: 6.1651e-04  
Epoch 5824/100000  
63/63 [=====] - 0s 3ms/step - loss: 7.0209e-04 -  
val\_loss: 7.7177e-04  
Epoch 5825/100000  
63/63 [=====] - 0s 3ms/step - loss: 6.0397e-04 -  
val\_loss: 7.0716e-04  
Epoch 5826/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.1234e-04 -  
val\_loss: 8.2037e-04  
Epoch 5827/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.3756e-04 -  
val\_loss: 5.8209e-04  
Epoch 5828/100000  
63/63 [=====] - 0s 3ms/step - loss: 7.2046e-04 -  
val\_loss: 0.0010  
Epoch 5829/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.2810e-04 -  
val\_loss: 0.0010  
Epoch 5830/100000  
63/63 [=====] - 0s 3ms/step - loss: 7.0844e-04 -  
val\_loss: 6.0477e-04  
Epoch 5831/100000  
63/63 [=====] - 0s 3ms/step - loss: 6.6041e-04 -  
val\_loss: 8.5385e-04  
Epoch 5832/100000  
63/63 [=====] - 0s 3ms/step - loss: 5.2785e-04 -  
val\_loss: 7.0025e-04  
Epoch 5833/100000  
63/63 [=====] - 0s 3ms/step - loss: 6.7717e-04 -  
val\_loss: 7.2859e-04  
Epoch 5834/100000  
63/63 [=====] - 0s 3ms/step - loss: 6.8252e-04 -  
val\_loss: 0.0010  
Epoch 5835/100000  
63/63 [=====] - 0s 3ms/step - loss: 5.2096e-04 -  
val\_loss: 8.3872e-04  
Epoch 5836/100000  
63/63 [=====] - 0s 3ms/step - loss: 6.3609e-04 -  
val\_loss: 7.0298e-04  
Epoch 5837/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.1336e-04 -  
val\_loss: 0.0014  
Epoch 5838/100000  
63/63 [=====] - 0s 3ms/step - loss: 7.2291e-04 -  
val\_loss: 0.0010

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Epoch 5839/100000
63/63 [=====] - 0s 3ms/step - loss: 7.9361e-04 -
val_loss: 6.1463e-04
Epoch 5840/100000
63/63 [=====] - 0s 3ms/step - loss: 6.5210e-04 -
val_loss: 7.0774e-04
Epoch 5841/100000
57/63 [=====>...] - ETA: 0s - loss: 6.3300e-04Epoch 05840:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 6.5263e-04 -
val_loss: 4.4802e-04
Epoch 5842/100000
63/63 [=====] - 0s 3ms/step - loss: 7.3802e-04 -
val_loss: 7.6288e-04
Epoch 5843/100000
63/63 [=====] - 0s 3ms/step - loss: 7.8856e-04 -
val_loss: 6.8911e-04
Epoch 5844/100000
63/63 [=====] - 0s 3ms/step - loss: 7.9310e-04 -
val_loss: 6.3430e-04
Epoch 5845/100000
58/63 [=====>...] - ETA: 0s - loss: 7.1806e-04Epoch 05844:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 7.0481e-04 -
val_loss: 4.8891e-04
Epoch 5846/100000
63/63 [=====] - 0s 3ms/step - loss: 6.9721e-04 -
val_loss: 6.1447e-04
Epoch 5847/100000
63/63 [=====] - 0s 3ms/step - loss: 7.3270e-04 -
val_loss: 8.4393e-04
Epoch 5848/100000
63/63 [=====] - 0s 3ms/step - loss: 8.4465e-04 -
val_loss: 5.0267e-04
Epoch 5849/100000
63/63 [=====] - 0s 3ms/step - loss: 7.2037e-04 -
val_loss: 0.0014
Epoch 5850/100000
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val_loss:
0.0023
Epoch 5851/100000
63/63 [=====] - 0s 3ms/step - loss: 0.0010 - val_loss:
5.7035e-04
Epoch 5852/100000
63/63 [=====] - 0s 3ms/step - loss: 9.4407e-04 -
val_loss: 5.6605e-04
Epoch 5853/100000
63/63 [=====] - 0s 3ms/step - loss: 9.8850e-04 -

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val_loss: 6.9418e-04
Epoch 5854/100000
61/63 [=====>.] - ETA: 0s - loss: 6.7787e-04Epoch 05853:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 6.6920e-04 -
val_loss: 4.2839e-04
Epoch 5855/100000
62/63 [=====>.] - ETA: 0s - loss: 6.7685e-04Epoch 05854:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 6.7376e-04 -
val_loss: 4.9214e-04
Epoch 5856/100000
63/63 [=====] - 0s 3ms/step - loss: 7.3522e-04 -
val_loss: 6.2535e-04
Epoch 5857/100000
63/63 [=====] - 0s 3ms/step - loss: 5.8268e-04 -
val_loss: 8.4942e-04
Epoch 5858/100000
63/63 [=====] - 0s 3ms/step - loss: 6.2845e-04 -
val_loss: 5.6116e-04
Epoch 5859/100000
63/63 [=====] - 0s 3ms/step - loss: 7.2902e-04 -
val_loss: 5.5542e-04
Epoch 5860/100000
63/63 [=====] - 0s 3ms/step - loss: 8.2678e-04 -
val_loss: 6.9996e-04
Epoch 5861/100000
63/63 [=====] - 0s 3ms/step - loss: 8.6900e-04 -
val_loss: 7.0484e-04
Epoch 5862/100000
63/63 [=====] - 0s 3ms/step - loss: 6.7025e-04 -
val_loss: 5.7957e-04
Epoch 5863/100000
63/63 [=====] - 0s 3ms/step - loss: 7.1137e-04 -
val_loss: 5.9577e-04
Epoch 5864/100000
53/63 [=====>...] - ETA: 0s - loss: 7.3497e-04Epoch 05863:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 7.4219e-04 -
val_loss: 4.2584e-04
Epoch 5865/100000
63/63 [=====] - 0s 3ms/step - loss: 9.0932e-04 -
val_loss: 0.0011
Epoch 5866/100000
63/63 [=====] - 0s 3ms/step - loss: 9.2046e-04 -
val_loss: 9.9173e-04
Epoch 5867/100000
63/63 [=====] - 0s 3ms/step - loss: 9.0875e-04 -

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val_loss: 7.1362e-04
Epoch 5868/100000
63/63 [=====] - 0s 3ms/step - loss: 8.4939e-04 -
val_loss: 8.8140e-04
Epoch 5869/100000
63/63 [=====] - 0s 3ms/step - loss: 6.7246e-04 -
val_loss: 0.0011
Epoch 5870/100000
63/63 [=====] - 0s 3ms/step - loss: 8.7396e-04 -
val_loss: 7.3099e-04
Epoch 5871/100000
63/63 [=====] - 0s 3ms/step - loss: 9.1833e-04 -
val_loss: 9.4037e-04
Epoch 5872/100000
63/63 [=====] - 0s 3ms/step - loss: 7.1283e-04 -
val_loss: 0.0011
Epoch 5873/100000
63/63 [=====] - 0s 3ms/step - loss: 8.9027e-04 -
val_loss: 9.6926e-04
Epoch 5874/100000
63/63 [=====] - 0s 4ms/step - loss: 7.8036e-04 -
val_loss: 9.3432e-04
Epoch 5875/100000
63/63 [=====] - 0s 3ms/step - loss: 6.9745e-04 -
val_loss: 7.9811e-04
Epoch 5876/100000
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val_loss:
9.3910e-04
Epoch 5877/100000
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val_loss:
6.2733e-04
Epoch 5878/100000
63/63 [=====] - 0s 3ms/step - loss: 8.5442e-04 -
val_loss: 8.8530e-04
Epoch 5879/100000
63/63 [=====] - 0s 3ms/step - loss: 7.2291e-04 -
val_loss: 6.4622e-04
Epoch 5880/100000
63/63 [=====] - 0s 3ms/step - loss: 6.1890e-04 -
val_loss: 8.5274e-04
Epoch 5881/100000
60/63 [=====>...] - ETA: 0s - loss: 7.1123e-04Epoch 05880:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 6.9945e-04 -
val_loss: 4.2848e-04
Epoch 5882/100000
63/63 [=====] - 0s 3ms/step - loss: 6.6292e-04 -
val_loss: 5.4726e-04

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Epoch 5883/100000
63/63 [=====] - 0s 4ms/step - loss: 8.5108e-04 -
val_loss: 5.7181e-04
Epoch 5884/100000
63/63 [=====] - 0s 4ms/step - loss: 7.3247e-04 -
val_loss: 7.2536e-04
Epoch 5885/100000
63/63 [=====] - 0s 4ms/step - loss: 8.0030e-04 -
val_loss: 0.0011
Epoch 5886/100000
63/63 [=====] - 0s 4ms/step - loss: 7.2048e-04 -
val_loss: 0.0010
Epoch 5887/100000
63/63 [=====] - 0s 4ms/step - loss: 6.3809e-04 -
val_loss: 9.5953e-04
Epoch 5888/100000
63/63 [=====] - 0s 3ms/step - loss: 7.8015e-04 -
val_loss: 5.0588e-04
Epoch 5889/100000
53/63 [=====>...] - ETA: 0s - loss: 7.3592e-04Epoch 05888:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 7.4012e-04 -
val_loss: 3.5142e-04
Epoch 5890/100000
52/63 [=====>...] - ETA: 0s - loss: 9.2021e-04Epoch 05889:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 8.7645e-04 -
val_loss: 4.6747e-04
Epoch 5891/100000
63/63 [=====] - 0s 4ms/step - loss: 7.5657e-04 -
val_loss: 5.9935e-04
Epoch 5892/100000
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val_loss:
7.2348e-04
Epoch 5893/100000
63/63 [=====] - 0s 3ms/step - loss: 0.0010 - val_loss:
6.7107e-04
Epoch 5894/100000
63/63 [=====] - 0s 4ms/step - loss: 8.5850e-04 -
val_loss: 6.4589e-04
Epoch 5895/100000
63/63 [=====] - 0s 3ms/step - loss: 8.1068e-04 -
val_loss: 7.5580e-04
Epoch 5896/100000
63/63 [=====] - 0s 3ms/step - loss: 0.0010 - val_loss:
9.8655e-04
Epoch 5897/100000
63/63 [=====] - 0s 3ms/step - loss: 8.4558e-04 -

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val_loss: 9.6847e-04
Epoch 5898/100000
63/63 [=====] - 0s 3ms/step - loss: 7.5382e-04 -
val_loss: 6.7195e-04
Epoch 5899/100000
63/63 [=====] - 0s 3ms/step - loss: 6.7007e-04 -
val_loss: 7.2082e-04
Epoch 5900/100000
63/63 [=====] - 0s 4ms/step - loss: 5.9936e-04 -
val_loss: 6.8240e-04
Epoch 5901/100000
63/63 [=====] - 0s 4ms/step - loss: 6.6654e-04 -
val_loss: 5.7464e-04
Epoch 5902/100000
63/63 [=====] - 0s 4ms/step - loss: 7.7463e-04 -
val_loss: 5.4904e-04
Epoch 5903/100000
63/63 [=====] - 0s 4ms/step - loss: 7.0859e-04 -
val_loss: 8.3398e-04
Epoch 5904/100000
63/63 [=====] - 0s 4ms/step - loss: 6.0210e-04 -
val_loss: 5.5100e-04
Epoch 5905/100000
63/63 [=====] - 0s 4ms/step - loss: 5.9728e-04 -
val_loss: 5.3175e-04
Epoch 5906/100000
63/63 [=====] - 0s 4ms/step - loss: 6.1704e-04 -
val_loss: 6.5466e-04
Epoch 5907/100000
63/63 [=====] - 0s 3ms/step - loss: 6.0072e-04 -
val_loss: 5.6302e-04
Epoch 5908/100000
63/63 [=====] - 0s 4ms/step - loss: 7.4579e-04 -
val_loss: 6.5636e-04
Epoch 5909/100000
63/63 [=====] - 0s 4ms/step - loss: 7.0960e-04 -
val_loss: 5.5904e-04
Epoch 5910/100000
63/63 [=====] - 0s 4ms/step - loss: 8.1552e-04 -
val_loss: 5.8302e-04
Epoch 5911/100000
63/63 [=====] - 0s 4ms/step - loss: 9.9290e-04 -
val_loss: 8.3232e-04
Epoch 5912/100000
63/63 [=====] - 0s 4ms/step - loss: 7.9606e-04 -
val_loss: 6.7388e-04
Epoch 5913/100000
63/63 [=====] - 0s 4ms/step - loss: 6.9131e-04 -

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val_loss: 6.6965e-04
Epoch 5914/100000
63/63 [=====] - 0s 4ms/step - loss: 8.3462e-04 -
val_loss: 7.0337e-04
Epoch 5915/100000
63/63 [=====] - 0s 4ms/step - loss: 5.9006e-04 -
val_loss: 5.0716e-04
Epoch 5916/100000
63/63 [=====] - 0s 5ms/step - loss: 6.8619e-04 -
val_loss: 6.4415e-04
Epoch 5917/100000
63/63 [=====] - 0s 4ms/step - loss: 6.3267e-04 -
val_loss: 7.2811e-04
Epoch 5918/100000
63/63 [=====] - 0s 4ms/step - loss: 8.3621e-04 -
val_loss: 7.8089e-04
Epoch 5919/100000
63/63 [=====] - 0s 5ms/step - loss: 6.6558e-04 -
val_loss: 5.2888e-04
Epoch 5920/100000
63/63 [=====] - 0s 6ms/step - loss: 5.1558e-04 -
val_loss: 7.3718e-04
Epoch 5921/100000
63/63 [=====] - 0s 5ms/step - loss: 5.8692e-04 -
val_loss: 7.6683e-04
Epoch 5922/100000
63/63 [=====] - 0s 5ms/step - loss: 5.9115e-04 -
val_loss: 8.0036e-04
Epoch 5923/100000
63/63 [=====] - 0s 5ms/step - loss: 5.9430e-04 -
val_loss: 5.1436e-04
Epoch 5924/100000
63/63 [=====] - 0s 5ms/step - loss: 5.5299e-04 -
val_loss: 6.7132e-04
Epoch 5925/100000
63/63 [=====] - 0s 4ms/step - loss: 5.9697e-04 -
val_loss: 6.1365e-04
Epoch 5926/100000
63/63 [=====] - 0s 4ms/step - loss: 5.7573e-04 -
val_loss: 6.7986e-04
Epoch 5927/100000
63/63 [=====] - 0s 4ms/step - loss: 7.5656e-04 -
val_loss: 9.9925e-04
Epoch 5928/100000
63/63 [=====] - 0s 3ms/step - loss: 6.9941e-04 -
val_loss: 6.6353e-04
Epoch 5929/100000
63/63 [=====] - 0s 4ms/step - loss: 7.2950e-04 -

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val_loss: 5.9890e-04
Epoch 5930/100000
63/63 [=====] - 0s 4ms/step - loss: 8.6884e-04 -
val_loss: 5.2585e-04
Epoch 5931/100000
63/63 [=====] - 0s 4ms/step - loss: 0.0012 - val_loss:
8.7315e-04
Epoch 5932/100000
52/63 [=====>...] - ETA: 0s - loss: 8.4108e-04Epoch 05931:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 8.1404e-04 -
val_loss: 3.4355e-04
Epoch 5933/100000
63/63 [=====] - 0s 4ms/step - loss: 7.4072e-04 -
val_loss: 5.1068e-04
Epoch 5934/100000
63/63 [=====] - 0s 3ms/step - loss: 6.7628e-04 -
val_loss: 5.8208e-04
Epoch 5935/100000
63/63 [=====] - 0s 4ms/step - loss: 6.4519e-04 -
val_loss: 7.0003e-04
Epoch 5936/100000
63/63 [=====] - 0s 4ms/step - loss: 6.8609e-04 -
val_loss: 6.4700e-04
Epoch 5937/100000
63/63 [=====] - 0s 4ms/step - loss: 8.2598e-04 -
val_loss: 6.2237e-04
Epoch 5938/100000
63/63 [=====] - 0s 4ms/step - loss: 7.6704e-04 -
val_loss: 7.0908e-04
Epoch 5939/100000
63/63 [=====] - 0s 4ms/step - loss: 8.8604e-04 -
val_loss: 7.4348e-04
Epoch 5940/100000
62/63 [=====>.] - ETA: 0s - loss: 6.0425e-04Epoch 05939:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 6.0300e-04 -
val_loss: 4.7225e-04
Epoch 5941/100000
63/63 [=====] - 0s 5ms/step - loss: 7.0617e-04 -
val_loss: 0.0010
Epoch 5942/100000
63/63 [=====] - 0s 5ms/step - loss: 6.7186e-04 -
val_loss: 5.6633e-04
Epoch 5943/100000
63/63 [=====] - 0s 4ms/step - loss: 6.7422e-04 -
val_loss: 6.7547e-04
Epoch 5944/100000

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63/63 [=====] - 0s 4ms/step - loss: 5.9546e-04 -
val_loss: 7.8609e-04
Epoch 5945/100000
62/63 [=====>...] - ETA: 0s - loss: 6.1401e-04Epoch 05944:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 6.0486e-04 -
val_loss: 3.5767e-04
Epoch 5946/100000
63/63 [=====] - 0s 4ms/step - loss: 7.2177e-04 -
val_loss: 5.5058e-04
Epoch 5947/100000
63/63 [=====] - 0s 3ms/step - loss: 6.3092e-04 -
val_loss: 6.0495e-04
Epoch 5948/100000
63/63 [=====] - 0s 4ms/step - loss: 5.8103e-04 -
val_loss: 6.1127e-04
Epoch 5949/100000
63/63 [=====] - 0s 3ms/step - loss: 6.2019e-04 -
val_loss: 6.2084e-04
Epoch 5950/100000
63/63 [=====] - 0s 4ms/step - loss: 6.6236e-04 -
val_loss: 6.4587e-04
Epoch 5951/100000
63/63 [=====] - 0s 3ms/step - loss: 5.5482e-04 -
val_loss: 6.0948e-04
Epoch 5952/100000
63/63 [=====] - 0s 4ms/step - loss: 7.8011e-04 -
val_loss: 6.6038e-04
Epoch 5953/100000
64/63 [=====>...] - ETA: 0s - loss: 4.8554e-04Epoch 05952:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.5586e-04 -
val_loss: 4.3186e-04
Epoch 5954/100000
63/63 [=====] - 0s 4ms/step - loss: 6.0908e-04 -
val_loss: 5.1935e-04
Epoch 5955/100000
63/63 [=====] - 0s 3ms/step - loss: 5.9681e-04 -
val_loss: 5.5050e-04
Epoch 5956/100000
63/63 [=====] - 0s 3ms/step - loss: 6.4350e-04 -
val_loss: 7.6011e-04
Epoch 5957/100000
63/63 [=====] - 0s 4ms/step - loss: 7.0475e-04 -
val_loss: 7.2086e-04
Epoch 5958/100000
63/63 [=====] - 0s 4ms/step - loss: 6.2708e-04 -
val_loss: 6.9580e-04

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Epoch 5959/100000
63/63 [=====] - 0s 3ms/step - loss: 6.2866e-04 -
val_loss: 0.0011
Epoch 5960/100000
63/63 [=====] - 0s 4ms/step - loss: 7.0540e-04 -
val_loss: 8.2867e-04
Epoch 5961/100000
63/63 [=====] - 0s 4ms/step - loss: 5.2488e-04 -
val_loss: 0.0011
Epoch 5962/100000
63/63 [=====] - 0s 3ms/step - loss: 5.5002e-04 -
val_loss: 9.3958e-04
Epoch 5963/100000
63/63 [=====] - 0s 4ms/step - loss: 6.1566e-04 -
val_loss: 6.7291e-04
Epoch 5964/100000
53/63 [=====>...] - ETA: 0s - loss: 5.2074e-04Epoch 05963:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.0505e-04 -
val_loss: 3.7821e-04
Epoch 5965/100000
63/63 [=====] - 0s 4ms/step - loss: 6.8609e-04 -
val_loss: 0.0011
Epoch 5966/100000
63/63 [=====] - 0s 3ms/step - loss: 7.6707e-04 -
val_loss: 0.0010
Epoch 5967/100000
63/63 [=====] - 0s 4ms/step - loss: 7.8477e-04 -
val_loss: 0.0010
Epoch 5968/100000
63/63 [=====] - 0s 4ms/step - loss: 5.1864e-04 -
val_loss: 9.3001e-04
Epoch 5969/100000
63/63 [=====] - 0s 4ms/step - loss: 4.9807e-04 -
val_loss: 0.0011
Epoch 5970/100000
63/63 [=====] - 0s 4ms/step - loss: 5.2730e-04 -
val_loss: 6.7275e-04
Epoch 5971/100000
63/63 [=====] - 0s 4ms/step - loss: 6.0253e-04 -
val_loss: 9.8755e-04
Epoch 5972/100000
63/63 [=====] - 0s 3ms/step - loss: 6.5598e-04 -
val_loss: 8.2505e-04
Epoch 5973/100000
63/63 [=====] - 0s 4ms/step - loss: 5.8440e-04 -
val_loss: 5.5860e-04
Epoch 5974/100000

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63/63 [=====] - 0s 4ms/step - loss: 6.6114e-04 -
val_loss: 8.9775e-04
Epoch 5975/100000
63/63 [=====] - 0s 4ms/step - loss: 7.3875e-04 -
val_loss: 8.2648e-04
Epoch 5976/100000
63/63 [=====] - 0s 4ms/step - loss: 7.4409e-04 -
val_loss: 9.0133e-04
Epoch 5977/100000
63/63 [=====] - 0s 4ms/step - loss: 8.9420e-04 -
val_loss: 0.0011
Epoch 5978/100000
63/63 [=====] - 0s 3ms/step - loss: 7.8040e-04 -
val_loss: 9.7952e-04
Epoch 5979/100000
63/63 [=====] - 0s 4ms/step - loss: 9.7550e-04 -
val_loss: 5.9118e-04
Epoch 5980/100000
63/63 [=====] - 0s 3ms/step - loss: 8.3256e-04 -
val_loss: 8.1110e-04
Epoch 5981/100000
63/63 [=====] - 0s 3ms/step - loss: 8.8511e-04 -
val_loss: 0.0012
Epoch 5982/100000
63/63 [=====] - 0s 4ms/step - loss: 9.4153e-04 -
val_loss: 0.0011
Epoch 5983/100000
63/63 [=====] - 0s 4ms/step - loss: 8.1883e-04 -
val_loss: 8.7055e-04
Epoch 5984/100000
63/63 [=====] - 0s 4ms/step - loss: 0.0010 - val_loss:
6.1936e-04
Epoch 5985/100000
63/63 [=====] - 0s 3ms/step - loss: 7.4661e-04 -
val_loss: 8.1443e-04
Epoch 5986/100000
63/63 [=====] - 0s 3ms/step - loss: 8.2094e-04 -
val_loss: 9.5963e-04
Epoch 5987/100000
63/63 [=====] - 0s 3ms/step - loss: 8.2113e-04 -
val_loss: 8.3242e-04
Epoch 5988/100000
63/63 [=====] - 0s 4ms/step - loss: 8.7044e-04 -
val_loss: 0.0011
Epoch 5989/100000
63/63 [=====] - 0s 4ms/step - loss: 8.2508e-04 -
val_loss: 9.1504e-04
Epoch 5990/100000

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63/63 [=====] - 0s 4ms/step - loss: 8.2406e-04 -
val_loss: 7.1555e-04
Epoch 5991/100000
63/63 [=====] - 0s 3ms/step - loss: 8.4474e-04 -
val_loss: 9.3759e-04
Epoch 5992/100000
63/63 [=====] - 0s 4ms/step - loss: 7.3549e-04 -
val_loss: 5.5433e-04
Epoch 5993/100000
63/63 [=====] - 0s 3ms/step - loss: 7.8050e-04 -
val_loss: 5.5165e-04
Epoch 5994/100000
63/63 [=====] - 0s 3ms/step - loss: 9.1635e-04 -
val_loss: 7.0285e-04
Epoch 5995/100000
63/63 [=====] - 0s 3ms/step - loss: 6.6372e-04 -
val_loss: 8.3113e-04
Epoch 5996/100000
63/63 [=====] - 0s 3ms/step - loss: 5.8773e-04 -
val_loss: 5.6757e-04
Epoch 5997/100000
63/63 [=====] - 0s 3ms/step - loss: 5.3547e-04 -
val_loss: 7.9694e-04
Epoch 5998/100000
63/63 [=====] - 0s 3ms/step - loss: 6.0229e-04 -
val_loss: 9.3796e-04
Epoch 5999/100000
63/63 [=====] - 0s 4ms/step - loss: 5.7337e-04 -
val_loss: 5.3504e-04
Epoch 6000/100000
63/63 [=====] - 0s 4ms/step - loss: 8.1713e-04 -
val_loss: 7.4404e-04
Epoch 6001/100000
63/63 [=====] - 0s 4ms/step - loss: 5.9839e-04 -
val_loss: 0.0014
Epoch 6002/100000
63/63 [=====] - 0s 5ms/step - loss: 8.7829e-04 -
val_loss: 7.6032e-04
Epoch 6003/100000
63/63 [=====] - 0s 4ms/step - loss: 6.6350e-04 -
val_loss: 5.2211e-04
Epoch 6004/100000
63/63 [=====] - 0s 4ms/step - loss: 5.7878e-04 -
val_loss: 8.1010e-04
Epoch 6005/100000
63/63 [=====] - 0s 4ms/step - loss: 7.9695e-04 -
val_loss: 6.4090e-04
Epoch 6006/100000

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52/63 [=====>...] - ETA: 0s - loss: 6.6110e-04Epoch 06005:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 6.5787e-04 -
val_loss: 4.5696e-04
Epoch 6007/100000
63/63 [=====] - 0s 4ms/step - loss: 4.9766e-04 -
val_loss: 5.2569e-04
Epoch 6008/100000
63/63 [=====] - 0s 4ms/step - loss: 7.6470e-04 -
val_loss: 5.1329e-04
Epoch 6009/100000
63/63 [=====] - 0s 4ms/step - loss: 5.8879e-04 -
val_loss: 6.1189e-04
Epoch 6010/100000
63/63 [=====] - 0s 4ms/step - loss: 4.9234e-04 -
val_loss: 6.7546e-04
Epoch 6011/100000
63/63 [=====] - 0s 4ms/step - loss: 8.8086e-04 -
val_loss: 6.9125e-04
Epoch 6012/100000
63/63 [=====] - 0s 4ms/step - loss: 6.1259e-04 -
val_loss: 9.2312e-04
Epoch 6013/100000
63/63 [=====] - 0s 4ms/step - loss: 7.2541e-04 -
val_loss: 7.9080e-04
Epoch 6014/100000
59/63 [=====>..] - ETA: 0s - loss: 5.8802e-04Epoch 06013:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.9287e-04 -
val_loss: 4.5447e-04
Epoch 6015/100000
63/63 [=====] - ETA: 0s - loss: 5.5369e-04Epoch 06014:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.5369e-04 -
val_loss: 4.6058e-04
Epoch 6016/100000
63/63 [=====] - 0s 4ms/step - loss: 6.9660e-04 -
val_loss: 9.9710e-04
Epoch 6017/100000
63/63 [=====] - 0s 4ms/step - loss: 6.0945e-04 -
val_loss: 6.2960e-04
Epoch 6018/100000
55/63 [=====>...] - ETA: 0s - loss: 6.1616e-04Epoch 06017:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 6.0807e-04 -
val_loss: 4.0078e-04
Epoch 6019/100000
63/63 [=====] - 0s 4ms/step - loss: 6.1454e-04 -

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val_loss: 5.1328e-04
Epoch 6020/100000
63/63 [=====] - 0s 4ms/step - loss: 6.2062e-04 -
val_loss: 5.3995e-04
Epoch 6021/100000
61/63 [=====>.] - ETA: 0s - loss: 4.8539e-04Epoch 06020:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 4.7934e-04 -
val_loss: 4.8123e-04
Epoch 6022/100000
63/63 [=====] - 0s 4ms/step - loss: 4.5532e-04 -
val_loss: 5.0278e-04
Epoch 6023/100000
63/63 [=====] - 0s 4ms/step - loss: 6.8735e-04 -
val_loss: 7.1939e-04
Epoch 6024/100000
63/63 [=====] - 0s 4ms/step - loss: 8.1670e-04 -
val_loss: 7.0200e-04
Epoch 6025/100000
63/63 [=====] - 0s 3ms/step - loss: 4.9831e-04 -
val_loss: 7.2376e-04
Epoch 6026/100000
63/63 [=====] - 0s 4ms/step - loss: 6.6939e-04 -
val_loss: 7.2669e-04
Epoch 6027/100000
58/63 [=====>...] - ETA: 0s - loss: 6.6205e-04Epoch 06026:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 6.7884e-04 -
val_loss: 4.3517e-04
Epoch 6028/100000
63/63 [=====] - 0s 4ms/step - loss: 7.9479e-04 -
val_loss: 6.7698e-04
Epoch 6029/100000
63/63 [=====] - 0s 4ms/step - loss: 8.5175e-04 -
val_loss: 8.0562e-04
Epoch 6030/100000
63/63 [=====] - 0s 3ms/step - loss: 7.8735e-04 -
val_loss: 6.7884e-04
Epoch 6031/100000
63/63 [=====] - 0s 3ms/step - loss: 9.5598e-04 -
val_loss: 5.1242e-04
Epoch 6032/100000
63/63 [=====] - 0s 3ms/step - loss: 8.2992e-04 -
val_loss: 8.4008e-04
Epoch 6033/100000
63/63 [=====] - 0s 4ms/step - loss: 8.0063e-04 -
val_loss: 8.9789e-04
Epoch 6034/100000

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63/63 [=====] - 0s 4ms/step - loss: 8.6394e-04 -
val_loss: 6.5151e-04
Epoch 6035/100000
63/63 [=====] - 0s 4ms/step - loss: 6.8044e-04 -
val_loss: 7.0494e-04
Epoch 6036/100000
63/63 [=====] - 0s 5ms/step - loss: 0.0010 - val_loss:
8.4425e-04
Epoch 6037/100000
63/63 [=====] - 0s 5ms/step - loss: 8.7686e-04 -
val_loss: 7.1224e-04
Epoch 6038/100000
63/63 [=====] - 0s 5ms/step - loss: 8.3502e-04 -
val_loss: 7.9806e-04
Epoch 6039/100000
63/63 [=====] - 0s 5ms/step - loss: 6.2069e-04 -
val_loss: 8.7540e-04
Epoch 6040/100000
63/63 [=====] - 0s 5ms/step - loss: 7.3809e-04 -
val_loss: 5.1849e-04
Epoch 6041/100000
63/63 [=====] - 0s 5ms/step - loss: 6.6539e-04 -
val_loss: 6.4507e-04
Epoch 6042/100000
63/63 [=====] - 0s 4ms/step - loss: 6.2933e-04 -
val_loss: 5.3939e-04
Epoch 6043/100000
48/63 [=====>...] - ETA: 0s - loss: 5.1425e-04Epoch 06042:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.7416e-04 -
val_loss: 4.4523e-04
Epoch 6044/100000
63/63 [=====] - 0s 4ms/step - loss: 5.2243e-04 -
val_loss: 5.0284e-04
Epoch 6045/100000
63/63 [=====] - 0s 4ms/step - loss: 6.7941e-04 -
val_loss: 7.3882e-04
Epoch 6046/100000
48/63 [=====>...] - ETA: 0s - loss: 6.1277e-04Epoch 06045:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.8946e-04 -
val_loss: 4.5860e-04
Epoch 6047/100000
63/63 [=====] - 0s 4ms/step - loss: 8.5221e-04 -
val_loss: 9.2654e-04
Epoch 6048/100000
57/63 [=====>...] - ETA: 0s - loss: 8.2562e-04Epoch 06047:
early stopping THR

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63/63 [=====] - 0s 3ms/step - loss: 8.0787e-04 -
val_loss: 4.9787e-04
Epoch 6049/100000
63/63 [=====] - 0s 4ms/step - loss: 5.4394e-04 -
val_loss: 0.0014
Epoch 6050/100000
63/63 [=====] - 0s 4ms/step - loss: 5.3483e-04 -
val_loss: 8.6838e-04
Epoch 6051/100000
63/63 [=====] - 0s 5ms/step - loss: 5.4101e-04 -
val_loss: 7.7517e-04
Epoch 6052/100000
50/63 [=====>...] - ETA: 0s - loss: 4.0772e-04Epoch 06051:
early stopping THR
63/63 [=====] - 0s 5ms/step - loss: 4.3424e-04 -
val_loss: 4.0257e-04
Epoch 6053/100000
56/63 [=====>...] - ETA: 0s - loss: 4.6403e-04Epoch 06052:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.8472e-04 -
val_loss: 3.3970e-04
Epoch 6054/100000
63/63 [=====] - 0s 3ms/step - loss: 4.9650e-04 -
val_loss: 6.9238e-04
Epoch 6055/100000
63/63 [=====] - 0s 3ms/step - loss: 5.2511e-04 -
val_loss: 5.8194e-04
Epoch 6056/100000
63/63 [=====] - 0s 3ms/step - loss: 7.5543e-04 -
val_loss: 5.3559e-04
Epoch 6057/100000
63/63 [=====] - 0s 4ms/step - loss: 6.2472e-04 -
val_loss: 6.0157e-04
Epoch 6058/100000
63/63 [=====] - 0s 3ms/step - loss: 5.7777e-04 -
val_loss: 6.8561e-04
Epoch 6059/100000
63/63 [=====] - 0s 3ms/step - loss: 5.4919e-04 -
val_loss: 6.3449e-04
Epoch 6060/100000
56/63 [=====>...] - ETA: 0s - loss: 7.9797e-04Epoch 06059:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 7.9949e-04 -
val_loss: 4.4478e-04
Epoch 6061/100000
63/63 [=====] - ETA: 0s - loss: 6.1551e-04Epoch 06060:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 6.1551e-04 -

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val_loss: 4.0515e-04
Epoch 6062/100000
57/63 [=====>...] - ETA: 0s - loss: 5.3265e-04Epoch 06061:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.2228e-04 -
val_loss: 4.6102e-04
Epoch 6063/100000
54/63 [=====>...] - ETA: 0s - loss: 5.1087e-04Epoch 06062:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.1727e-04 -
val_loss: 4.9541e-04
Epoch 6064/100000
63/63 [=====] - 0s 3ms/step - loss: 6.2759e-04 -
val_loss: 5.0156e-04
Epoch 6065/100000
63/63 [=====] - 0s 4ms/step - loss: 5.2828e-04 -
val_loss: 7.0611e-04
Epoch 6066/100000
63/63 [=====] - 0s 4ms/step - loss: 4.7957e-04 -
val_loss: 6.3284e-04
Epoch 6067/100000
53/63 [=====>...] - ETA: 0s - loss: 6.2276e-04Epoch 06066:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 6.0957e-04 -
val_loss: 4.4892e-04
Epoch 6068/100000
63/63 [=====] - 0s 4ms/step - loss: 5.1350e-04 -
val_loss: 8.4548e-04
Epoch 6069/100000
60/63 [=====>..] - ETA: 0s - loss: 5.3577e-04Epoch 06068:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.2605e-04 -
val_loss: 4.4911e-04
Epoch 6070/100000
63/63 [=====] - 0s 4ms/step - loss: 5.1688e-04 -
val_loss: 5.2255e-04
Epoch 6071/100000
63/63 [=====] - 0s 4ms/step - loss: 7.2082e-04 -
val_loss: 9.5338e-04
Epoch 6072/100000
63/63 [=====] - 0s 5ms/step - loss: 8.1661e-04 -
val_loss: 0.0010
Epoch 6073/100000
54/63 [=====>...] - ETA: 0s - loss: 7.6838e-04Epoch 06072:
early stopping THR
63/63 [=====] - 0s 5ms/step - loss: 7.7170e-04 -
val_loss: 4.8031e-04
Epoch 6074/100000

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63/63 [=====] - 0s 5ms/step - loss: 5.7933e-04 -
val_loss: 8.6614e-04
Epoch 6075/100000
56/63 [=====>...] - ETA: 0s - loss: 7.8236e-04Epoch 06074:
early stopping THR
63/63 [=====] - 0s 5ms/step - loss: 7.2973e-04 -
val_loss: 4.4143e-04
Epoch 6076/100000
53/63 [=====>...] - ETA: 0s - loss: 4.5239e-04Epoch 06075:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.5145e-04 -
val_loss: 2.8094e-04
Epoch 6077/100000
63/63 [=====] - 0s 4ms/step - loss: 4.4628e-04 -
val_loss: 7.7328e-04
Epoch 6078/100000
63/63 [=====] - 0s 3ms/step - loss: 6.4395e-04 -
val_loss: 7.9724e-04
Epoch 6079/100000
63/63 [=====] - 0s 4ms/step - loss: 4.4609e-04 -
val_loss: 9.4155e-04
Epoch 6080/100000
63/63 [=====] - 0s 3ms/step - loss: 5.1303e-04 -
val_loss: 6.0953e-04
Epoch 6081/100000
63/63 [=====] - 0s 4ms/step - loss: 5.3293e-04 -
val_loss: 6.6180e-04
Epoch 6082/100000
63/63 [=====] - 0s 4ms/step - loss: 7.0537e-04 -
val_loss: 5.6893e-04
Epoch 6083/100000
54/63 [=====>...] - ETA: 0s - loss: 4.3579e-04Epoch 06082:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.5180e-04 -
val_loss: 3.4543e-04
Epoch 6084/100000
63/63 [=====] - 0s 4ms/step - loss: 5.9805e-04 -
val_loss: 5.1185e-04
Epoch 6085/100000
58/63 [=====>...] - ETA: 0s - loss: 5.5057e-04Epoch 06084:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 5.2975e-04 -
val_loss: 4.1190e-04
Epoch 6086/100000
63/63 [=====] - 0s 4ms/step - loss: 4.8445e-04 -
val_loss: 5.2463e-04
Epoch 6087/100000
63/63 [=====] - 0s 5ms/step - loss: 5.3821e-04 -

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val_loss: 5.7793e-04
Epoch 6088/100000
63/63 [=====] - 0s 5ms/step - loss: 6.2931e-04 -
val_loss: 5.4537e-04
Epoch 6089/100000
50/63 [=====>...] - ETA: 0s - loss: 4.0577e-04Epoch 06088:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.6390e-04 -
val_loss: 3.9255e-04
Epoch 6090/100000
49/63 [=====>...] - ETA: 0s - loss: 6.0141e-04Epoch 06089:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 6.0483e-04 -
val_loss: 4.7208e-04
Epoch 6091/100000
63/63 [=====] - 0s 4ms/step - loss: 5.0515e-04 -
val_loss: 8.9733e-04
Epoch 6092/100000
63/63 [=====] - 0s 4ms/step - loss: 5.4690e-04 -
val_loss: 5.8061e-04
Epoch 6093/100000
63/63 [=====] - 0s 4ms/step - loss: 5.0218e-04 -
val_loss: 8.1083e-04
Epoch 6094/100000
63/63 [=====] - 0s 4ms/step - loss: 5.5473e-04 -
val_loss: 8.1953e-04
Epoch 6095/100000
56/63 [=====>...] - ETA: 0s - loss: 5.9101e-04Epoch 06094:
early stopping THR
63/63 [=====] - 0s 6ms/step - loss: 5.6839e-04 -
val_loss: 4.6571e-04
Epoch 6096/100000
63/63 [=====] - 0s 5ms/step - loss: 7.6551e-04 -
val_loss: 0.0017
Epoch 6097/100000
63/63 [=====] - 0s 6ms/step - loss: 0.0010 - val_loss:
7.1360e-04
Epoch 6098/100000
63/63 [=====] - 0s 6ms/step - loss: 7.0795e-04 -
val_loss: 5.4870e-04
Epoch 6099/100000
63/63 [=====] - 0s 5ms/step - loss: 7.9676e-04 -
val_loss: 5.8115e-04
Epoch 6100/100000
63/63 [=====] - 0s 5ms/step - loss: 5.3433e-04 -
val_loss: 8.7536e-04
Epoch 6101/100000
63/63 [=====] - 0s 5ms/step - loss: 6.7355e-04 -

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val_loss: 7.7031e-04
Epoch 6102/100000
63/63 [=====] - 0s 4ms/step - loss: 6.6340e-04 -
val_loss: 6.0171e-04
Epoch 6103/100000
63/63 [=====] - 0s 4ms/step - loss: 6.0556e-04 -
val_loss: 8.3117e-04
Epoch 6104/100000
63/63 [=====] - 0s 4ms/step - loss: 6.6408e-04 -
val_loss: 0.0011
Epoch 6105/100000
63/63 [=====] - 0s 3ms/step - loss: 6.9204e-04 -
val_loss: 6.8050e-04
Epoch 6106/100000
63/63 [=====] - 0s 4ms/step - loss: 7.7733e-04 -
val_loss: 6.1773e-04
Epoch 6107/100000
63/63 [=====] - 0s 3ms/step - loss: 5.6459e-04 -
val_loss: 5.7449e-04
Epoch 6108/100000
54/63 [=====>...] - ETA: 0s - loss: 5.6953e-04Epoch 06107:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.5529e-04 -
val_loss: 3.2177e-04
Epoch 6109/100000
63/63 [=====] - 0s 4ms/step - loss: 9.2050e-04 -
val_loss: 9.3866e-04
Epoch 6110/100000
63/63 [=====] - 0s 4ms/step - loss: 8.0801e-04 -
val_loss: 6.6244e-04
Epoch 6111/100000
63/63 [=====] - 0s 4ms/step - loss: 6.5188e-04 -
val_loss: 6.2433e-04
Epoch 6112/100000
63/63 [=====] - 0s 4ms/step - loss: 5.9883e-04 -
val_loss: 5.4532e-04
Epoch 6113/100000
57/63 [=====>...] - ETA: 0s - loss: 7.8846e-04Epoch 06112:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 7.8641e-04 -
val_loss: 4.8865e-04
Epoch 6114/100000
63/63 [=====] - 0s 3ms/step - loss: 5.9414e-04 -
val_loss: 6.2213e-04
Epoch 6115/100000
63/63 [=====] - 0s 4ms/step - loss: 6.1814e-04 -
val_loss: 6.3415e-04
Epoch 6116/100000

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48/63 [=====>...] - ETA: 0s - loss: 7.7869e-04Epoch 06115:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 7.8618e-04 -
val_loss: 4.7129e-04
Epoch 6117/100000
63/63 [=====] - 0s 4ms/step - loss: 8.0053e-04 -
val_loss: 7.7617e-04
Epoch 6118/100000
63/63 [=====] - 0s 3ms/step - loss: 6.5186e-04 -
val_loss: 5.4222e-04
Epoch 6119/100000
63/63 [=====] - 0s 4ms/step - loss: 7.3895e-04 -
val_loss: 5.2155e-04
Epoch 6120/100000
63/63 [=====] - 0s 4ms/step - loss: 7.6207e-04 -
val_loss: 5.2656e-04
Epoch 6121/100000
49/63 [=====>...] - ETA: 0s - loss: 6.9806e-04Epoch 06120:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 6.4253e-04 -
val_loss: 4.9697e-04
Epoch 6122/100000
63/63 [=====] - ETA: 0s - loss: 5.8130e-04Epoch 06121:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.8130e-04 -
val_loss: 4.8028e-04
Epoch 6123/100000
63/63 [=====] - 0s 3ms/step - loss: 8.8697e-04 -
val_loss: 8.7815e-04
Epoch 6124/100000
63/63 [=====] - 0s 3ms/step - loss: 9.9572e-04 -
val_loss: 6.3447e-04
Epoch 6125/100000
63/63 [=====] - 0s 3ms/step - loss: 9.6666e-04 -
val_loss: 7.2998e-04
Epoch 6126/100000
58/63 [=====>...] - ETA: 0s - loss: 6.3064e-04Epoch 06125:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 6.3266e-04 -
val_loss: 4.5961e-04
Epoch 6127/100000
60/63 [=====>..] - ETA: 0s - loss: 4.8263e-04Epoch 06126:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 4.7512e-04 -
val_loss: 4.4396e-04
Epoch 6128/100000
63/63 [=====] - 0s 3ms/step - loss: 6.1280e-04 -
val_loss: 7.6386e-04

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Epoch 6129/100000  
63/63 [=====] - 0s 3ms/step - loss: 6.1557e-04 -  
val\_loss: 5.8141e-04  
Epoch 6130/100000  
63/63 [=====] - 0s 3ms/step - loss: 6.0600e-04 -  
val\_loss: 5.2459e-04  
Epoch 6131/100000  
61/63 [=====>.] - ETA: 0s - loss: 6.7294e-04Epoch 06130:  
early stopping THR  
63/63 [=====] - 0s 3ms/step - loss: 6.6303e-04 -  
val\_loss: 4.9290e-04  
Epoch 6132/100000  
63/63 [=====] - 0s 3ms/step - loss: 7.8553e-04 -  
val\_loss: 6.7063e-04  
Epoch 6133/100000  
63/63 [=====] - 0s 4ms/step - loss: 8.1971e-04 -  
val\_loss: 7.7008e-04  
Epoch 6134/100000  
56/63 [=====>...] - ETA: 0s - loss: 6.0701e-04Epoch 06133:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 5.9535e-04 -  
val\_loss: 4.8645e-04  
Epoch 6135/100000  
61/63 [=====>.] - ETA: 0s - loss: 6.6623e-04Epoch 06134:  
early stopping THR  
63/63 [=====] - 0s 3ms/step - loss: 6.6180e-04 -  
val\_loss: 4.8551e-04  
Epoch 6136/100000  
58/63 [=====>...] - ETA: 0s - loss: 6.5077e-04Epoch 06135:  
early stopping THR  
63/63 [=====] - 0s 3ms/step - loss: 7.2530e-04 -  
val\_loss: 3.3250e-04  
Epoch 6137/100000  
62/63 [=====>.] - ETA: 0s - loss: 7.5560e-04Epoch 06136:  
early stopping THR  
63/63 [=====] - 0s 3ms/step - loss: 7.5301e-04 -  
val\_loss: 3.0983e-04  
Epoch 6138/100000  
63/63 [=====] - 0s 3ms/step - loss: 7.2855e-04 -  
val\_loss: 9.3726e-04  
Epoch 6139/100000  
63/63 [=====] - 0s 4ms/step - loss: 9.1401e-04 -  
val\_loss: 8.0517e-04  
Epoch 6140/100000  
61/63 [=====>.] - ETA: 0s - loss: 4.8004e-04Epoch 06139:  
early stopping THR  
63/63 [=====] - 0s 3ms/step - loss: 4.7691e-04 -  
val\_loss: 4.4386e-04

Epoch 6141/100000  
63/63 [=====] - 0s 3ms/step - loss: 6.6623e-04 -  
val\_loss: 7.1876e-04  
Epoch 6142/100000  
58/63 [=====>...] - ETA: 0s - loss: 4.8165e-04Epoch 06141:  
early stopping THR  
63/63 [=====] - 0s 3ms/step - loss: 4.6754e-04 -  
val\_loss: 4.9619e-04  
Epoch 6143/100000  
58/63 [=====>...] - ETA: 0s - loss: 5.2873e-04Epoch 06142:  
early stopping THR  
63/63 [=====] - 0s 3ms/step - loss: 5.1060e-04 -  
val\_loss: 3.1797e-04  
Epoch 6144/100000  
63/63 [=====] - 0s 3ms/step - loss: 6.3980e-04 -  
val\_loss: 8.0844e-04  
Epoch 6145/100000  
63/63 [=====] - 0s 3ms/step - loss: 6.5613e-04 -  
val\_loss: 6.0545e-04  
Epoch 6146/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.7990e-04 -  
val\_loss: 5.5798e-04  
Epoch 6147/100000  
55/63 [=====>...] - ETA: 0s - loss: 6.0927e-04Epoch 06146:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 6.2651e-04 -  
val\_loss: 4.2126e-04  
Epoch 6148/100000  
63/63 [=====] - 0s 3ms/step - loss: 7.2343e-04 -  
val\_loss: 6.6111e-04  
Epoch 6149/100000  
63/63 [=====] - 0s 4ms/step - loss: 9.9420e-04 -  
val\_loss: 0.0011  
Epoch 6150/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0010 - val\_loss:  
8.3538e-04  
Epoch 6151/100000  
63/63 [=====] - 0s 3ms/step - loss: 7.1355e-04 -  
val\_loss: 6.2641e-04  
Epoch 6152/100000  
63/63 [=====] - 0s 3ms/step - loss: 6.9466e-04 -  
val\_loss: 9.8939e-04  
Epoch 6153/100000  
56/63 [=====>...] - ETA: 0s - loss: 6.4527e-04Epoch 06152:  
early stopping THR  
63/63 [=====] - 0s 3ms/step - loss: 6.3406e-04 -  
val\_loss: 4.7687e-04  
Epoch 6154/100000

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63/63 [=====] - 0s 3ms/step - loss: 6.0898e-04 -
val_loss: 5.3209e-04
Epoch 6155/100000
63/63 [=====] - 0s 3ms/step - loss: 8.1156e-04 -
val_loss: 6.5464e-04
Epoch 6156/100000
63/63 [=====] - 0s 4ms/step - loss: 7.1136e-04 -
val_loss: 5.0193e-04
Epoch 6157/100000
63/63 [=====] - 0s 3ms/step - loss: 7.0242e-04 -
val_loss: 6.6322e-04
Epoch 6158/100000
63/63 [=====] - 0s 3ms/step - loss: 6.7166e-04 -
val_loss: 5.9653e-04
Epoch 6159/100000
63/63 [=====] - 0s 3ms/step - loss: 7.2692e-04 -
val_loss: 6.2180e-04
Epoch 6160/100000
63/63 [=====] - 0s 3ms/step - loss: 6.1974e-04 -
val_loss: 6.3265e-04
Epoch 6161/100000
63/63 [=====] - 0s 3ms/step - loss: 7.6158e-04 -
val_loss: 0.0010
Epoch 6162/100000
63/63 [=====] - 0s 3ms/step - loss: 7.0786e-04 -
val_loss: 5.1681e-04
Epoch 6163/100000
63/63 [=====] - 0s 3ms/step - loss: 8.1293e-04 -
val_loss: 7.2856e-04
Epoch 6164/100000
63/63 [=====] - 0s 3ms/step - loss: 8.3065e-04 -
val_loss: 7.0449e-04
Epoch 6165/100000
63/63 [=====] - 0s 3ms/step - loss: 7.2514e-04 -
val_loss: 6.6289e-04
Epoch 6166/100000
63/63 [=====] - 0s 3ms/step - loss: 6.8540e-04 -
val_loss: 5.4467e-04
Epoch 6167/100000
63/63 [=====] - 0s 3ms/step - loss: 7.8649e-04 -
val_loss: 5.8372e-04
Epoch 6168/100000
62/63 [=====>.] - ETA: 0s - loss: 7.2125e-04Epoch 06167:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 7.1822e-04 -
val_loss: 4.4343e-04
Epoch 6169/100000
63/63 [=====] - 0s 3ms/step - loss: 9.0109e-04 -

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val_loss: 0.0020
Epoch 6170/100000
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val_loss:
0.0011
Epoch 6171/100000
63/63 [=====] - 0s 3ms/step - loss: 9.5331e-04 -
val_loss: 7.3483e-04
Epoch 6172/100000
63/63 [=====] - 0s 4ms/step - loss: 0.0010 - val_loss:
5.2815e-04
Epoch 6173/100000
63/63 [=====] - 0s 3ms/step - loss: 6.5380e-04 -
val_loss: 5.9452e-04
Epoch 6174/100000
63/63 [=====] - 0s 3ms/step - loss: 6.6028e-04 -
val_loss: 9.2266e-04
Epoch 6175/100000
63/63 [=====] - 0s 3ms/step - loss: 6.4589e-04 -
val_loss: 5.9812e-04
Epoch 6176/100000
63/63 [=====] - 0s 3ms/step - loss: 6.2504e-04 -
val_loss: 0.0011
Epoch 6177/100000
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val_loss:
8.1422e-04
Epoch 6178/100000
63/63 [=====] - 0s 3ms/step - loss: 7.6940e-04 -
val_loss: 8.5776e-04
Epoch 6179/100000
63/63 [=====] - 0s 3ms/step - loss: 8.8877e-04 -
val_loss: 7.8010e-04
Epoch 6180/100000
63/63 [=====] - 0s 4ms/step - loss: 7.7194e-04 -
val_loss: 8.7578e-04
Epoch 6181/100000
63/63 [=====] - 0s 4ms/step - loss: 6.0987e-04 -
val_loss: 6.5895e-04
Epoch 6182/100000
63/63 [=====] - 0s 3ms/step - loss: 6.6819e-04 -
val_loss: 5.9695e-04
Epoch 6183/100000
63/63 [=====] - 0s 3ms/step - loss: 6.1736e-04 -
val_loss: 5.4736e-04
Epoch 6184/100000
56/63 [=====>...] - ETA: 0s - loss: 6.6507e-04Epoch 06183:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 6.5124e-04 -
val_loss: 4.7061e-04

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Epoch 6185/100000
63/63 [=====] - 0s 3ms/step - loss: 5.9116e-04 -
val_loss: 9.2512e-04
Epoch 6186/100000
63/63 [=====] - 0s 3ms/step - loss: 5.7350e-04 -
val_loss: 5.4558e-04
Epoch 6187/100000
63/63 [=====] - 0s 3ms/step - loss: 6.7812e-04 -
val_loss: 5.8325e-04
Epoch 6188/100000
60/63 [=====>..] - ETA: 0s - loss: 4.9203e-04Epoch 06187:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 5.2007e-04 -
val_loss: 4.9937e-04
Epoch 6189/100000
57/63 [=====>...] - ETA: 0s - loss: 6.3627e-04Epoch 06188:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 6.2185e-04 -
val_loss: 4.3587e-04
Epoch 6190/100000
63/63 [=====] - 0s 3ms/step - loss: 5.8178e-04 -
val_loss: 7.0261e-04
Epoch 6191/100000
57/63 [=====>...] - ETA: 0s - loss: 7.4515e-04Epoch 06190:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 7.2415e-04 -
val_loss: 4.6460e-04
Epoch 6192/100000
63/63 [=====] - 0s 3ms/step - loss: 6.4236e-04 -
val_loss: 9.2308e-04
Epoch 6193/100000
63/63 [=====] - 0s 3ms/step - loss: 9.4513e-04 -
val_loss: 0.0012
Epoch 6194/100000
63/63 [=====] - 0s 3ms/step - loss: 7.4398e-04 -
val_loss: 7.3968e-04
Epoch 6195/100000
63/63 [=====] - 0s 3ms/step - loss: 7.1712e-04 -
val_loss: 5.2565e-04
Epoch 6196/100000
63/63 [=====] - 0s 3ms/step - loss: 6.0178e-04 -
val_loss: 5.5201e-04
Epoch 6197/100000
62/63 [=====>.] - ETA: 0s - loss: 6.0308e-04Epoch 06196:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 6.0063e-04 -
val_loss: 4.8754e-04
Epoch 6198/100000

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63/63 [=====] - 0s 3ms/step - loss: 6.4252e-04 -
val_loss: 9.5910e-04
Epoch 6199/100000
63/63 [=====] - 0s 3ms/step - loss: 7.9902e-04 -
val_loss: 9.5451e-04
Epoch 6200/100000
63/63 [=====] - 0s 3ms/step - loss: 8.1908e-04 -
val_loss: 9.8213e-04
Epoch 6201/100000
63/63 [=====] - 0s 3ms/step - loss: 8.0284e-04 -
val_loss: 8.3942e-04
Epoch 6202/100000
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val_loss:
8.4146e-04
Epoch 6203/100000
63/63 [=====] - 0s 3ms/step - loss: 0.0010 - val_loss:
9.4774e-04
Epoch 6204/100000
63/63 [=====] - 0s 3ms/step - loss: 9.4877e-04 -
val_loss: 8.0355e-04
Epoch 6205/100000
63/63 [=====] - 0s 3ms/step - loss: 8.2684e-04 -
val_loss: 6.7924e-04
Epoch 6206/100000
63/63 [=====] - 0s 3ms/step - loss: 7.6281e-04 -
val_loss: 5.8098e-04
Epoch 6207/100000
63/63 [=====] - 0s 3ms/step - loss: 5.4778e-04 -
val_loss: 6.6735e-04
Epoch 6208/100000
63/63 [=====] - 0s 3ms/step - loss: 8.7401e-04 -
val_loss: 9.3492e-04
Epoch 6209/100000
63/63 [=====] - 0s 3ms/step - loss: 8.6654e-04 -
val_loss: 0.0010
Epoch 6210/100000
63/63 [=====] - 0s 4ms/step - loss: 8.3331e-04 -
val_loss: 0.0010
Epoch 6211/100000
63/63 [=====] - 0s 4ms/step - loss: 8.9925e-04 -
val_loss: 7.4531e-04
Epoch 6212/100000
63/63 [=====] - 0s 4ms/step - loss: 7.1900e-04 -
val_loss: 7.8153e-04
Epoch 6213/100000
63/63 [=====] - 0s 4ms/step - loss: 7.1177e-04 -
val_loss: 6.1251e-04
Epoch 6214/100000

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63/63 [=====] - 0s 3ms/step - loss: 5.1677e-04 -
val_loss: 6.6364e-04
Epoch 6215/100000
63/63 [=====] - 0s 3ms/step - loss: 5.8930e-04 -
val_loss: 8.5366e-04
Epoch 6216/100000
63/63 [=====] - 0s 4ms/step - loss: 8.3384e-04 -
val_loss: 7.9688e-04
Epoch 6217/100000
63/63 [=====] - 0s 3ms/step - loss: 6.4651e-04 -
val_loss: 5.7734e-04
Epoch 6218/100000
63/63 [=====] - 0s 4ms/step - loss: 4.8591e-04 -
val_loss: 5.4382e-04
Epoch 6219/100000
63/63 [=====] - 0s 4ms/step - loss: 7.3161e-04 -
val_loss: 5.2064e-04
Epoch 6220/100000
63/63 [=====] - 0s 3ms/step - loss: 6.3444e-04 -
val_loss: 5.8181e-04
Epoch 6221/100000
63/63 [=====] - 0s 4ms/step - loss: 7.5498e-04 -
val_loss: 9.9789e-04
Epoch 6222/100000
63/63 [=====] - 0s 3ms/step - loss: 6.6153e-04 -
val_loss: 7.5588e-04
Epoch 6223/100000
63/63 [=====] - 0s 4ms/step - loss: 7.4708e-04 -
val_loss: 0.0011
Epoch 6224/100000
63/63 [=====] - 0s 4ms/step - loss: 7.2515e-04 -
val_loss: 6.2204e-04
Epoch 6225/100000
50/63 [=====>...] - ETA: 0s - loss: 8.2727e-04Epoch 06224:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 7.8071e-04 -
val_loss: 4.6420e-04
Epoch 6226/100000
63/63 [=====] - 0s 4ms/step - loss: 6.6114e-04 -
val_loss: 5.3918e-04
Epoch 6227/100000
63/63 [=====] - 0s 4ms/step - loss: 6.2405e-04 -
val_loss: 6.1122e-04
Epoch 6228/100000
63/63 [=====] - 0s 4ms/step - loss: 7.4657e-04 -
val_loss: 0.0010
Epoch 6229/100000
63/63 [=====] - 0s 4ms/step - loss: 6.8227e-04 -

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val_loss: 6.1001e-04
Epoch 6230/100000
48/63 [=====>...] - ETA: 0s - loss: 5.2541e-04Epoch 06229:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.5275e-04 -
val_loss: 4.4132e-04
Epoch 6231/100000
63/63 [=====] - 0s 4ms/step - loss: 6.1151e-04 -
val_loss: 5.8252e-04
Epoch 6232/100000
57/63 [=====>...] - ETA: 0s - loss: 5.8431e-04Epoch 06231:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.7583e-04 -
val_loss: 3.9119e-04
Epoch 6233/100000
52/63 [=====>...] - ETA: 0s - loss: 6.5888e-04Epoch 06232:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 6.5945e-04 -
val_loss: 4.8638e-04
Epoch 6234/100000
63/63 [=====] - 0s 4ms/step - loss: 4.6578e-04 -
val_loss: 6.2013e-04
Epoch 6235/100000
63/63 [=====] - 0s 4ms/step - loss: 5.2654e-04 -
val_loss: 5.2629e-04
Epoch 6236/100000
63/63 [=====] - 0s 5ms/step - loss: 6.0468e-04 -
val_loss: 0.0014
Epoch 6237/100000
57/63 [=====>...] - ETA: 0s - loss: 7.0555e-04Epoch 06236:
early stopping THR
63/63 [=====] - 0s 6ms/step - loss: 6.7637e-04 -
val_loss: 4.9501e-04
Epoch 6238/100000
63/63 [=====] - 0s 4ms/step - loss: 6.7357e-04 -
val_loss: 5.9340e-04
Epoch 6239/100000
63/63 [=====] - 0s 4ms/step - loss: 5.4604e-04 -
val_loss: 5.4860e-04
Epoch 6240/100000
56/63 [=====>...] - ETA: 0s - loss: 5.9527e-04Epoch 06239:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 5.9049e-04 -
val_loss: 4.8589e-04
Epoch 6241/100000
63/63 [=====] - 0s 4ms/step - loss: 5.6624e-04 -
val_loss: 5.6144e-04
Epoch 6242/100000

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63/63 [=====] - 0s 3ms/step - loss: 7.9915e-04 -
val_loss: 5.1386e-04
Epoch 6243/100000
63/63 [=====] - 0s 4ms/step - loss: 5.2666e-04 -
val_loss: 8.6739e-04
Epoch 6244/100000
51/63 [=====>...] - ETA: 0s - loss: 6.7324e-04Epoch 06243:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 6.7460e-04 -
val_loss: 4.0739e-04
Epoch 6245/100000
58/63 [=====>...] - ETA: 0s - loss: 6.0241e-04Epoch 06244:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.8813e-04 -
val_loss: 4.5446e-04
Epoch 6246/100000
51/63 [=====>...] - ETA: 0s - loss: 5.7535e-04Epoch 06245:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.4064e-04 -
val_loss: 4.3213e-04
Epoch 6247/100000
59/63 [=====>..] - ETA: 0s - loss: 5.3090e-04Epoch 06246:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 5.2580e-04 -
val_loss: 4.9763e-04
Epoch 6248/100000
59/63 [=====>..] - ETA: 0s - loss: 5.4676e-04Epoch 06247:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 5.3184e-04 -
val_loss: 4.5451e-04
Epoch 6249/100000
60/63 [=====>..] - ETA: 0s - loss: 4.2391e-04Epoch 06248:
early stopping THR
63/63 [=====] - 0s 5ms/step - loss: 4.4686e-04 -
val_loss: 4.9855e-04
Epoch 6250/100000
56/63 [=====>...] - ETA: 0s - loss: 5.6436e-04Epoch 06249:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 5.6844e-04 -
val_loss: 4.2356e-04
Epoch 6251/100000
63/63 [=====] - 0s 4ms/step - loss: 6.9661e-04 -
val_loss: 6.3295e-04
Epoch 6252/100000
63/63 [=====] - 0s 4ms/step - loss: 5.7411e-04 -
val_loss: 5.8765e-04
Epoch 6253/100000
63/63 [=====] - 0s 4ms/step - loss: 5.4782e-04 -

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val_loss: 5.7498e-04
Epoch 6254/100000
63/63 [=====] - 0s 4ms/step - loss: 6.6931e-04 -
val_loss: 7.0550e-04
Epoch 6255/100000
63/63 [=====] - 0s 3ms/step - loss: 6.8586e-04 -
val_loss: 7.4964e-04
Epoch 6256/100000
55/63 [=====>...] - ETA: 0s - loss: 6.0419e-04Epoch 06255:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.9509e-04 -
val_loss: 4.6449e-04
Epoch 6257/100000
57/63 [=====>...] - ETA: 0s - loss: 4.8190e-04Epoch 06256:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 5.1074e-04 -
val_loss: 4.0145e-04
Epoch 6258/100000
56/63 [=====>...] - ETA: 0s - loss: 6.9582e-04Epoch 06257:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 7.3434e-04 -
val_loss: 4.8514e-04
Epoch 6259/100000
63/63 [=====] - 0s 3ms/step - loss: 6.5125e-04 -
val_loss: 5.7253e-04
Epoch 6260/100000
59/63 [=====>..] - ETA: 0s - loss: 6.6558e-04Epoch 06259:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 6.4900e-04 -
val_loss: 3.4608e-04
Epoch 6261/100000
56/63 [=====>...] - ETA: 0s - loss: 5.8012e-04Epoch 06260:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 6.0919e-04 -
val_loss: 3.8865e-04
Epoch 6262/100000
63/63 [=====] - 0s 4ms/step - loss: 7.4849e-04 -
val_loss: 5.1843e-04
Epoch 6263/100000
59/63 [=====>..] - ETA: 0s - loss: 7.4722e-04Epoch 06262:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 7.5341e-04 -
val_loss: 4.1238e-04
Epoch 6264/100000
63/63 [=====] - 0s 3ms/step - loss: 5.3618e-04 -
val_loss: 5.5049e-04
Epoch 6265/100000
57/63 [=====>...] - ETA: 0s - loss: 5.4653e-04Epoch 06264:

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early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 5.3458e-04 -
val_loss: 3.5588e-04
Epoch 6266/100000
53/63 [=====>...] - ETA: 0s - loss: 5.7182e-04Epoch 06265:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.6270e-04 -
val_loss: 4.2027e-04
Epoch 6267/100000
48/63 [=====>...] - ETA: 0s - loss: 4.2178e-04Epoch 06266:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.7325e-04 -
val_loss: 4.5373e-04
Epoch 6268/100000
63/63 [=====] - 0s 3ms/step - loss: 6.7328e-04 -
val_loss: 5.6509e-04
Epoch 6269/100000
63/63 [=====] - 0s 4ms/step - loss: 5.7940e-04 -
val_loss: 5.0240e-04
Epoch 6270/100000
55/63 [=====>...] - ETA: 0s - loss: 6.2107e-04Epoch 06269:
early stopping THR
63/63 [=====] - 0s 5ms/step - loss: 5.8812e-04 -
val_loss: 3.4707e-04
Epoch 6271/100000
63/63 [=====] - 0s 4ms/step - loss: 5.7982e-04 -
val_loss: 6.2001e-04
Epoch 6272/100000
63/63 [=====] - 0s 3ms/step - loss: 5.9149e-04 -
val_loss: 6.1891e-04
Epoch 6273/100000
63/63 [=====] - 0s 3ms/step - loss: 8.1909e-04 -
val_loss: 0.0014
Epoch 6274/100000
63/63 [=====] - 0s 4ms/step - loss: 0.0012 - val_loss:
9.5623e-04
Epoch 6275/100000
63/63 [=====] - 0s 3ms/step - loss: 9.4225e-04 -
val_loss: 6.2023e-04
Epoch 6276/100000
59/63 [=====>..] - ETA: 0s - loss: 6.4686e-04Epoch 06275:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 6.5750e-04 -
val_loss: 4.2840e-04
Epoch 6277/100000
63/63 [=====] - 0s 4ms/step - loss: 6.5816e-04 -
val_loss: 6.0096e-04
Epoch 6278/100000

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63/63 [=====] - 0s 5ms/step - loss: 5.3432e-04 -
val_loss: 6.8495e-04
Epoch 6279/100000
63/63 [=====] - 0s 3ms/step - loss: 8.0013e-04 -
val_loss: 7.4764e-04
Epoch 6280/100000
63/63 [=====] - 0s 3ms/step - loss: 9.3876e-04 -
val_loss: 0.0013
Epoch 6281/100000
63/63 [=====] - 0s 4ms/step - loss: 8.5722e-04 -
val_loss: 0.0013
Epoch 6282/100000
63/63 [=====] - 0s 3ms/step - loss: 8.7593e-04 -
val_loss: 8.9624e-04
Epoch 6283/100000
63/63 [=====] - 0s 4ms/step - loss: 8.1317e-04 -
val_loss: 7.4627e-04
Epoch 6284/100000
63/63 [=====] - 0s 5ms/step - loss: 7.6716e-04 -
val_loss: 7.4421e-04
Epoch 6285/100000
63/63 [=====] - 0s 3ms/step - loss: 6.2927e-04 -
val_loss: 5.0842e-04
Epoch 6286/100000
63/63 [=====] - 0s 3ms/step - loss: 5.8813e-04 -
val_loss: 6.3411e-04
Epoch 6287/100000
63/63 [=====] - 0s 5ms/step - loss: 7.5782e-04 -
val_loss: 5.8280e-04
Epoch 6288/100000
63/63 [=====] - 0s 4ms/step - loss: 5.2257e-04 -
val_loss: 5.5811e-04
Epoch 6289/100000
56/63 [=====>...] - ETA: 0s - loss: 5.6875e-04Epoch 06288:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.4591e-04 -
val_loss: 4.7835e-04
Epoch 6290/100000
57/63 [=====>...] - ETA: 0s - loss: 5.6557e-04Epoch 06289:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 5.8029e-04 -
val_loss: 4.8195e-04
Epoch 6291/100000
63/63 [=====] - 0s 4ms/step - loss: 6.3438e-04 -
val_loss: 6.9735e-04
Epoch 6292/100000
63/63 [=====] - 0s 4ms/step - loss: 5.1041e-04 -
val_loss: 5.5418e-04

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Epoch 6293/100000
63/63 [=====] - 0s 4ms/step - loss: 4.4919e-04 -
val_loss: 6.0553e-04
Epoch 6294/100000
63/63 [=====] - 0s 4ms/step - loss: 6.5835e-04 -
val_loss: 8.1596e-04
Epoch 6295/100000
57/63 [=====>...] - ETA: 0s - loss: 7.0219e-04Epoch 06294:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 6.7961e-04 -
val_loss: 4.9688e-04
Epoch 6296/100000
63/63 [=====] - 0s 5ms/step - loss: 5.4901e-04 -
val_loss: 6.0245e-04
Epoch 6297/100000
63/63 [=====] - 0s 4ms/step - loss: 6.2569e-04 -
val_loss: 7.5178e-04
Epoch 6298/100000
51/63 [=====>...] - ETA: 0s - loss: 6.4918e-04Epoch 06297:
early stopping THR
63/63 [=====] - 0s 5ms/step - loss: 6.4761e-04 -
val_loss: 4.9540e-04
Epoch 6299/100000
63/63 [=====] - 0s 5ms/step - loss: 6.1809e-04 -
val_loss: 5.5410e-04
Epoch 6300/100000
63/63 [=====] - 0s 5ms/step - loss: 7.4881e-04 -
val_loss: 8.1810e-04
Epoch 6301/100000
63/63 [=====] - 0s 6ms/step - loss: 6.0016e-04 -
val_loss: 5.7282e-04
Epoch 6302/100000
63/63 [=====] - 0s 4ms/step - loss: 7.7737e-04 -
val_loss: 0.0013
Epoch 6303/100000
63/63 [=====] - 0s 7ms/step - loss: 8.1193e-04 -
val_loss: 5.6538e-04
Epoch 6304/100000
63/63 [=====] - 0s 4ms/step - loss: 7.8658e-04 -
val_loss: 5.5535e-04
Epoch 6305/100000
63/63 [=====] - 0s 4ms/step - loss: 7.0090e-04 -
val_loss: 6.0459e-04
Epoch 6306/100000
55/63 [=====>...] - ETA: 0s - loss: 5.4956e-04Epoch 06305:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.6838e-04 -
val_loss: 4.3553e-04

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Epoch 6307/100000  
57/63 [=====>...] - ETA: 0s - loss: 4.2949e-04Epoch 06306:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 4.1507e-04 -  
val\_loss: 3.1646e-04  
Epoch 6308/100000  
46/63 [=====>...] - ETA: 0s - loss: 4.1815e-04Epoch 06307:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 5.0140e-04 -  
val\_loss: 3.6357e-04  
Epoch 6309/100000  
58/63 [=====>...] - ETA: 0s - loss: 9.0813e-04Epoch 06308:  
early stopping THR  
63/63 [=====] - 0s 7ms/step - loss: 8.7969e-04 -  
val\_loss: 3.9394e-04  
Epoch 6310/100000  
52/63 [=====>...] - ETA: 0s - loss: 5.4917e-04Epoch 06309:  
early stopping THR  
63/63 [=====] - 0s 6ms/step - loss: 5.5205e-04 -  
val\_loss: 4.2032e-04  
Epoch 6311/100000  
59/63 [=====>..] - ETA: 0s - loss: 6.3857e-04Epoch 06310:  
early stopping THR  
63/63 [=====] - 0s 6ms/step - loss: 6.2397e-04 -  
val\_loss: 4.7552e-04  
Epoch 6312/100000  
63/63 [=====] - 0s 6ms/step - loss: 8.4104e-04 -  
val\_loss: 7.0249e-04  
Epoch 6313/100000  
63/63 [=====] - 0s 4ms/step - loss: 6.5223e-04 -  
val\_loss: 6.2227e-04  
Epoch 6314/100000  
63/63 [=====] - 0s 4ms/step - loss: 5.8692e-04 -  
val\_loss: 5.7601e-04  
Epoch 6315/100000  
63/63 [=====] - 0s 5ms/step - loss: 6.4139e-04 -  
val\_loss: 5.5831e-04  
Epoch 6316/100000  
63/63 [=====] - 0s 5ms/step - loss: 5.9737e-04 -  
val\_loss: 8.3615e-04  
Epoch 6317/100000  
58/63 [=====>...] - ETA: 0s - loss: 6.7816e-04Epoch 06316:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 6.7517e-04 -  
val\_loss: 3.9991e-04  
Epoch 6318/100000  
63/63 [=====] - 0s 4ms/step - loss: 5.4405e-04 -  
val\_loss: 7.1690e-04



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Epoch 6319/100000
63/63 [=====] - 0s 3ms/step - loss: 8.6264e-04 -
val_loss: 6.7581e-04
Epoch 6320/100000
63/63 [=====] - 0s 3ms/step - loss: 6.9378e-04 -
val_loss: 5.4989e-04
Epoch 6321/100000
63/63 [=====] - 0s 4ms/step - loss: 8.1064e-04 -
val_loss: 8.4117e-04
Epoch 6322/100000
63/63 [=====] - 0s 6ms/step - loss: 7.2763e-04 -
val_loss: 7.6823e-04
Epoch 6323/100000
56/63 [=====>...] - ETA: 0s - loss: 6.7830e-04Epoch 06322:
early stopping THR
63/63 [=====] - 0s 6ms/step - loss: 7.0213e-04 -
val_loss: 4.2085e-04
Epoch 6324/100000
63/63 [=====] - 0s 4ms/step - loss: 5.8192e-04 -
val_loss: 6.2348e-04
Epoch 6325/100000
54/63 [=====>...] - ETA: 0s - loss: 5.9788e-04Epoch 06324:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.9075e-04 -
val_loss: 4.7947e-04
Epoch 6326/100000
63/63 [=====] - 0s 5ms/step - loss: 7.5598e-04 -
val_loss: 5.2582e-04
Epoch 6327/100000
63/63 [=====] - 0s 4ms/step - loss: 7.7235e-04 -
val_loss: 5.5244e-04
Epoch 6328/100000
63/63 [=====] - 0s 4ms/step - loss: 5.9940e-04 -
val_loss: 5.2044e-04
Epoch 6329/100000
52/63 [=====>...] - ETA: 0s - loss: 3.9964e-04Epoch 06328:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 3.9648e-04 -
val_loss: 4.0749e-04
Epoch 6330/100000
63/63 [=====] - 0s 4ms/step - loss: 4.9798e-04 -
val_loss: 5.7670e-04
Epoch 6331/100000
62/63 [=====>.] - ETA: 0s - loss: 4.7536e-04Epoch 06330:
early stopping THR
63/63 [=====] - 0s 5ms/step - loss: 4.7674e-04 -
val_loss: 4.8178e-04
Epoch 6332/100000

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63/63 [=====] - 0s 3ms/step - loss: 7.6266e-04 -
val_loss: 6.3527e-04
Epoch 6333/100000
63/63 [=====] - 0s 4ms/step - loss: 6.7557e-04 -
val_loss: 5.1050e-04
Epoch 6334/100000
63/63 [=====] - 0s 3ms/step - loss: 5.1465e-04 -
val_loss: 5.2373e-04
Epoch 6335/100000
58/63 [=====>...] - ETA: 0s - loss: 5.3918e-04Epoch 06334:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.7520e-04 -
val_loss: 4.4686e-04
Epoch 6336/100000
63/63 [=====] - 0s 4ms/step - loss: 7.4002e-04 -
val_loss: 8.2687e-04
Epoch 6337/100000
63/63 [=====] - 0s 4ms/step - loss: 8.8944e-04 -
val_loss: 8.5358e-04
Epoch 6338/100000
63/63 [=====] - 0s 4ms/step - loss: 6.9409e-04 -
val_loss: 6.6646e-04
Epoch 6339/100000
63/63 [=====] - 0s 4ms/step - loss: 7.3696e-04 -
val_loss: 6.6691e-04
Epoch 6340/100000
56/63 [=====>...] - ETA: 0s - loss: 7.5230e-04Epoch 06339:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 7.4645e-04 -
val_loss: 4.8838e-04
Epoch 6341/100000
63/63 [=====] - 0s 4ms/step - loss: 5.6959e-04 -
val_loss: 9.0753e-04
Epoch 6342/100000
63/63 [=====] - 0s 3ms/step - loss: 7.7545e-04 -
val_loss: 6.5073e-04
Epoch 6343/100000
63/63 [=====] - 0s 4ms/step - loss: 4.8280e-04 -
val_loss: 9.4612e-04
Epoch 6344/100000
63/63 [=====] - 0s 4ms/step - loss: 7.4967e-04 -
val_loss: 7.6058e-04
Epoch 6345/100000
63/63 [=====] - 0s 4ms/step - loss: 6.3459e-04 -
val_loss: 5.0730e-04
Epoch 6346/100000
63/63 [=====] - 0s 4ms/step - loss: 6.0294e-04 -
val_loss: 7.7978e-04

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Epoch 6347/100000  
63/63 [=====] - 0s 3ms/step - loss: 6.6466e-04 -  
val\_loss: 0.0012  
Epoch 6348/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss:  
9.9636e-04  
Epoch 6349/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss:  
8.7921e-04  
Epoch 6350/100000  
63/63 [=====] - 0s 3ms/step - loss: 7.6958e-04 -  
val\_loss: 8.2954e-04  
Epoch 6351/100000  
63/63 [=====] - 0s 4ms/step - loss: 6.2881e-04 -  
val\_loss: 7.3515e-04  
Epoch 6352/100000  
63/63 [=====] - 0s 4ms/step - loss: 6.7899e-04 -  
val\_loss: 8.3726e-04  
Epoch 6353/100000  
63/63 [=====] - 0s 4ms/step - loss: 6.4374e-04 -  
val\_loss: 9.6452e-04  
Epoch 6354/100000  
63/63 [=====] - 0s 4ms/step - loss: 6.5966e-04 -  
val\_loss: 6.8962e-04  
Epoch 6355/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0010 - val\_loss:  
6.1246e-04  
Epoch 6356/100000  
63/63 [=====] - 0s 4ms/step - loss: 8.7211e-04 -  
val\_loss: 7.3298e-04  
Epoch 6357/100000  
63/63 [=====] - 0s 4ms/step - loss: 6.5185e-04 -  
val\_loss: 8.4630e-04  
Epoch 6358/100000  
63/63 [=====] - 0s 4ms/step - loss: 7.7030e-04 -  
val\_loss: 6.0186e-04  
Epoch 6359/100000  
63/63 [=====] - 0s 4ms/step - loss: 7.2181e-04 -  
val\_loss: 7.6319e-04  
Epoch 6360/100000  
63/63 [=====] - 0s 4ms/step - loss: 6.1412e-04 -  
val\_loss: 6.8697e-04  
Epoch 6361/100000  
63/63 [=====] - 0s 4ms/step - loss: 6.4848e-04 -  
val\_loss: 5.2415e-04  
Epoch 6362/100000  
63/63 [=====] - 0s 3ms/step - loss: 6.8602e-04 -  
val\_loss: 7.1999e-04

Epoch 6363/100000  
63/63 [=====] - 0s 4ms/step - loss: 6.2453e-04 -  
val\_loss: 7.3621e-04  
Epoch 6364/100000  
63/63 [=====] - 0s 4ms/step - loss: 6.3886e-04 -  
val\_loss: 6.4248e-04  
Epoch 6365/100000  
63/63 [=====] - 0s 4ms/step - loss: 6.6529e-04 -  
val\_loss: 0.0011  
Epoch 6366/100000  
63/63 [=====] - 0s 3ms/step - loss: 7.8680e-04 -  
val\_loss: 5.1881e-04  
Epoch 6367/100000  
63/63 [=====] - 0s 4ms/step - loss: 7.7346e-04 -  
val\_loss: 6.6261e-04  
Epoch 6368/100000  
63/63 [=====] - 0s 4ms/step - loss: 8.5504e-04 -  
val\_loss: 0.0013  
Epoch 6369/100000  
63/63 [=====] - 0s 5ms/step - loss: 7.0472e-04 -  
val\_loss: 7.6951e-04  
Epoch 6370/100000  
63/63 [=====] - 0s 6ms/step - loss: 6.9362e-04 -  
val\_loss: 7.1641e-04  
Epoch 6371/100000  
63/63 [=====] - 0s 6ms/step - loss: 6.7558e-04 -  
val\_loss: 8.3480e-04  
Epoch 6372/100000  
63/63 [=====] - 0s 4ms/step - loss: 6.1141e-04 -  
val\_loss: 7.8454e-04  
Epoch 6373/100000  
63/63 [=====] - 0s 6ms/step - loss: 5.1344e-04 -  
val\_loss: 5.8541e-04  
Epoch 6374/100000  
63/63 [=====] - 0s 6ms/step - loss: 7.1066e-04 -  
val\_loss: 5.9195e-04  
Epoch 6375/100000  
63/63 [=====] - 0s 4ms/step - loss: 5.4769e-04 -  
val\_loss: 5.5546e-04  
Epoch 6376/100000  
63/63 [=====] - 0s 4ms/step - loss: 7.1893e-04 -  
val\_loss: 5.7362e-04  
Epoch 6377/100000  
63/63 [=====] - 0s 3ms/step - loss: 5.4586e-04 -  
val\_loss: 5.6015e-04  
Epoch 6378/100000  
63/63 [=====] - 0s 4ms/step - loss: 6.7604e-04 -  
val\_loss: 6.7044e-04

Epoch 6379/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.0778e-04 -  
val\_loss: 6.7362e-04  
Epoch 6380/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.4096e-04 -  
val\_loss: 5.5010e-04  
Epoch 6381/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.4822e-04 -  
val\_loss: 0.0010  
Epoch 6382/100000  
63/63 [=====] - 0s 4ms/step - loss: 8.7304e-04 -  
val\_loss: 9.8054e-04  
Epoch 6383/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0014 - val\_loss:  
7.4414e-04  
Epoch 6384/100000  
63/63 [=====] - 0s 4ms/step - loss: 7.6459e-04 -  
val\_loss: 8.2246e-04  
Epoch 6385/100000  
63/63 [=====] - 0s 4ms/step - loss: 6.6725e-04 -  
val\_loss: 8.5067e-04  
Epoch 6386/100000  
63/63 [=====] - 0s 4ms/step - loss: 6.8548e-04 -  
val\_loss: 5.1868e-04  
Epoch 6387/100000  
63/63 [=====] - 0s 4ms/step - loss: 8.6847e-04 -  
val\_loss: 8.2869e-04  
Epoch 6388/100000  
63/63 [=====] - 0s 4ms/step - loss: 7.3743e-04 -  
val\_loss: 0.0012  
Epoch 6389/100000  
63/63 [=====] - 0s 4ms/step - loss: 8.0007e-04 -  
val\_loss: 7.9545e-04  
Epoch 6390/100000  
63/63 [=====] - 0s 4ms/step - loss: 8.6778e-04 -  
val\_loss: 6.7127e-04  
Epoch 6391/100000  
63/63 [=====] - 0s 3ms/step - loss: 7.1738e-04 -  
val\_loss: 6.8670e-04  
Epoch 6392/100000  
63/63 [=====] - 0s 3ms/step - loss: 6.5612e-04 -  
val\_loss: 6.7769e-04  
Epoch 6393/100000  
63/63 [=====] - 0s 4ms/step - loss: 7.2020e-04 -  
val\_loss: 6.7660e-04  
Epoch 6394/100000  
63/63 [=====] - 0s 4ms/step - loss: 7.7603e-04 -  
val\_loss: 5.3140e-04

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Epoch 6395/100000
63/63 [=====] - 0s 3ms/step - loss: 8.2818e-04 -
val_loss: 7.1508e-04
Epoch 6396/100000
63/63 [=====] - 0s 4ms/step - loss: 6.1961e-04 -
val_loss: 7.4527e-04
Epoch 6397/100000
60/63 [=====>...] - ETA: 0s - loss: 7.0809e-04Epoch 06396:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 6.9864e-04 -
val_loss: 4.3232e-04
Epoch 6398/100000
63/63 [=====] - 0s 4ms/step - loss: 9.4019e-04 -
val_loss: 6.4342e-04
Epoch 6399/100000
63/63 [=====] - 0s 3ms/step - loss: 0.0010 - val_loss:
7.4296e-04
Epoch 6400/100000
63/63 [=====] - 0s 3ms/step - loss: 7.2100e-04 -
val_loss: 5.8280e-04
Epoch 6401/100000
59/63 [=====>...] - ETA: 0s - loss: 7.5440e-04Epoch 06400:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 7.3819e-04 -
val_loss: 4.4641e-04
Epoch 6402/100000
63/63 [=====] - 0s 3ms/step - loss: 6.7055e-04 -
val_loss: 5.0044e-04
Epoch 6403/100000
58/63 [=====>...] - ETA: 0s - loss: 6.7796e-04Epoch 06402:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 6.6721e-04 -
val_loss: 4.7948e-04
Epoch 6404/100000
63/63 [=====] - 0s 4ms/step - loss: 7.6767e-04 -
val_loss: 7.2776e-04
Epoch 6405/100000
63/63 [=====] - 0s 3ms/step - loss: 9.0007e-04 -
val_loss: 9.2040e-04
Epoch 6406/100000
63/63 [=====] - 0s 4ms/step - loss: 9.0204e-04 -
val_loss: 9.3133e-04
Epoch 6407/100000
63/63 [=====] - 0s 3ms/step - loss: 8.3976e-04 -
val_loss: 6.4149e-04
Epoch 6408/100000
63/63 [=====] - 0s 4ms/step - loss: 6.7950e-04 -
val_loss: 9.0055e-04

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Epoch 6409/100000  
63/63 [=====] - 0s 4ms/step - loss: 6.4527e-04 -  
val\_loss: 7.8750e-04  
Epoch 6410/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.6958e-04 -  
val\_loss: 0.0014  
Epoch 6411/100000  
63/63 [=====] - 0s 4ms/step - loss: 8.5254e-04 -  
val\_loss: 6.5376e-04  
Epoch 6412/100000  
63/63 [=====] - 0s 4ms/step - loss: 7.8562e-04 -  
val\_loss: 8.0888e-04  
Epoch 6413/100000  
63/63 [=====] - 0s 4ms/step - loss: 7.7103e-04 -  
val\_loss: 0.0010  
Epoch 6414/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss:  
0.0018  
Epoch 6415/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.9794e-04 -  
val\_loss: 8.3259e-04  
Epoch 6416/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.2769e-04 -  
val\_loss: 8.8732e-04  
Epoch 6417/100000  
63/63 [=====] - 0s 4ms/step - loss: 7.1538e-04 -  
val\_loss: 8.1732e-04  
Epoch 6418/100000  
63/63 [=====] - 0s 4ms/step - loss: 6.6114e-04 -  
val\_loss: 8.5293e-04  
Epoch 6419/100000  
63/63 [=====] - 0s 4ms/step - loss: 6.2511e-04 -  
val\_loss: 8.8797e-04  
Epoch 6420/100000  
63/63 [=====] - 0s 4ms/step - loss: 6.6998e-04 -  
val\_loss: 5.9717e-04  
Epoch 6421/100000  
63/63 [=====] - 0s 4ms/step - loss: 7.0459e-04 -  
val\_loss: 6.7886e-04  
Epoch 6422/100000  
63/63 [=====] - 0s 4ms/step - loss: 8.5032e-04 -  
val\_loss: 8.9590e-04  
Epoch 6423/100000  
50/63 [=====>...] - ETA: 0s - loss: 6.7714e-04Epoch 06422:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 6.4193e-04 -  
val\_loss: 4.8988e-04  
Epoch 6424/100000

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63/63 [=====] - 0s 4ms/step - loss: 8.1515e-04 -
val_loss: 5.4911e-04
Epoch 6425/100000
63/63 [=====] - 0s 4ms/step - loss: 7.1191e-04 -
val_loss: 7.0773e-04
Epoch 6426/100000
63/63 [=====] - 0s 4ms/step - loss: 7.6136e-04 -
val_loss: 5.4593e-04
Epoch 6427/100000
63/63 [=====] - 0s 3ms/step - loss: 6.2537e-04 -
val_loss: 5.3370e-04
Epoch 6428/100000
48/63 [=====>...] - ETA: 0s - loss: 5.8207e-04Epoch 06427:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 6.0909e-04 -
val_loss: 4.7308e-04
Epoch 6429/100000
45/63 [=====>...] - ETA: 0s - loss: 7.7282e-04Epoch 06428:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 8.1214e-04 -
val_loss: 4.4519e-04
Epoch 6430/100000
63/63 [=====] - 0s 4ms/step - loss: 8.7755e-04 -
val_loss: 6.9548e-04
Epoch 6431/100000
63/63 [=====] - 0s 4ms/step - loss: 9.0056e-04 -
val_loss: 0.0016
Epoch 6432/100000
63/63 [=====] - 0s 3ms/step - loss: 7.9399e-04 -
val_loss: 8.0579e-04
Epoch 6433/100000
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val_loss:
0.0013
Epoch 6434/100000
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val_loss:
7.3170e-04
Epoch 6435/100000
63/63 [=====] - 0s 3ms/step - loss: 0.0016 - val_loss:
0.0019
Epoch 6436/100000
63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val_loss:
0.0011
Epoch 6437/100000
63/63 [=====] - 0s 4ms/step - loss: 0.0015 - val_loss:
0.0011
Epoch 6438/100000
63/63 [=====] - 0s 4ms/step - loss: 0.0013 - val_loss:
0.0011

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Epoch 6439/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0011

Epoch 6440/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0019 - val\_loss: 9.1945e-04

Epoch 6441/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss: 8.9716e-04

Epoch 6442/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0015 - val\_loss: 0.0017

Epoch 6443/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val\_loss: 0.0014

Epoch 6444/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0014 - val\_loss: 0.0015

Epoch 6445/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0015 - val\_loss: 0.0012

Epoch 6446/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0012 - val\_loss: 0.0012

Epoch 6447/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.7953e-04 - val\_loss: 9.5724e-04

Epoch 6448/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss: 8.2952e-04

Epoch 6449/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0010 - val\_loss: 7.7632e-04

Epoch 6450/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss: 0.0010

Epoch 6451/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.0740e-04 - val\_loss: 7.8967e-04

Epoch 6452/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.4221e-04 - val\_loss: 0.0011

Epoch 6453/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0010 - val\_loss: 6.8734e-04

Epoch 6454/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss: 6.1283e-04

Epoch 6455/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss: 6.4631e-04

Epoch 6456/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.7278e-04 - val\_loss: 8.0461e-04

Epoch 6457/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0019 - val\_loss: 0.0028

Epoch 6458/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0021 - val\_loss: 0.0011

Epoch 6459/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0011

Epoch 6460/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss: 9.7580e-04

Epoch 6461/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss: 9.5719e-04

Epoch 6462/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss: 7.7197e-04

Epoch 6463/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0010 - val\_loss: 7.7381e-04

Epoch 6464/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss: 7.3384e-04

Epoch 6465/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0010 - val\_loss: 7.6312e-04

Epoch 6466/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss: 7.5392e-04

Epoch 6467/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss: 9.7369e-04

Epoch 6468/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0023 - val\_loss: 0.0045

Epoch 6469/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0046 - val\_loss: 0.0033

Epoch 6470/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0033 - val\_loss: 0.0025

Epoch 6471/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0029 - val\_loss: 0.0023

Epoch 6472/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0025 - val\_loss: 0.0019

Epoch 6473/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0026 - val\_loss: 0.0022

Epoch 6474/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0021 - val\_loss: 0.0020

Epoch 6475/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0022 - val\_loss: 0.0017

Epoch 6476/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0019 - val\_loss: 0.0015

Epoch 6477/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0017 - val\_loss: 0.0010

Epoch 6478/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss: 0.0012

Epoch 6479/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss: 9.8240e-04

Epoch 6480/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0012 - val\_loss: 9.9964e-04

Epoch 6481/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0010 - val\_loss: 9.4750e-04

Epoch 6482/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0012 - val\_loss: 8.9432e-04

Epoch 6483/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0010 - val\_loss: 8.5871e-04

Epoch 6484/100000  
63/63 [=====] - 0s 4ms/step - loss: 9.3485e-04 - val\_loss: 8.7824e-04

Epoch 6485/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.5934e-04 - val\_loss: 6.1252e-04

Epoch 6486/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0010 - val\_loss: 8.3824e-04

Epoch 6487/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.4422e-04 -  
val\_loss: 8.0539e-04  
Epoch 6488/100000  
63/63 [=====] - 0s 4ms/step - loss: 9.2535e-04 -  
val\_loss: 7.1448e-04  
Epoch 6489/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.4214e-04 -  
val\_loss: 8.6604e-04  
Epoch 6490/100000  
63/63 [=====] - 0s 4ms/step - loss: 7.7204e-04 -  
val\_loss: 9.0996e-04  
Epoch 6491/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.1581e-04 -  
val\_loss: 7.2950e-04  
Epoch 6492/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.3681e-04 -  
val\_loss: 8.2340e-04  
Epoch 6493/100000  
63/63 [=====] - 0s 4ms/step - loss: 9.5998e-04 -  
val\_loss: 0.0011  
Epoch 6494/100000  
63/63 [=====] - 0s 3ms/step - loss: 7.1895e-04 -  
val\_loss: 6.5993e-04  
Epoch 6495/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.0157e-04 -  
val\_loss: 6.5041e-04  
Epoch 6496/100000  
63/63 [=====] - 0s 3ms/step - loss: 6.7532e-04 -  
val\_loss: 0.0010  
Epoch 6497/100000  
63/63 [=====] - 0s 4ms/step - loss: 9.6887e-04 -  
val\_loss: 7.8091e-04  
Epoch 6498/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.1986e-04 -  
val\_loss: 8.2999e-04  
Epoch 6499/100000  
63/63 [=====] - 0s 4ms/step - loss: 7.7730e-04 -  
val\_loss: 7.0600e-04  
Epoch 6500/100000  
63/63 [=====] - 0s 4ms/step - loss: 8.7948e-04 -  
val\_loss: 9.2909e-04  
Epoch 6501/100000  
63/63 [=====] - 0s 4ms/step - loss: 8.2229e-04 -  
val\_loss: 6.5811e-04  
Epoch 6502/100000  
63/63 [=====] - 0s 3ms/step - loss: 6.9975e-04 -  
val\_loss: 9.3299e-04

Epoch 6503/100000  
63/63 [=====] - 0s 4ms/step - loss: 8.0420e-04 -  
val\_loss: 0.0010  
Epoch 6504/100000  
63/63 [=====] - 0s 3ms/step - loss: 7.0319e-04 -  
val\_loss: 9.0978e-04  
Epoch 6505/100000  
63/63 [=====] - 0s 4ms/step - loss: 7.5645e-04 -  
val\_loss: 6.4796e-04  
Epoch 6506/100000  
63/63 [=====] - 0s 4ms/step - loss: 7.0474e-04 -  
val\_loss: 8.7715e-04  
Epoch 6507/100000  
63/63 [=====] - 0s 3ms/step - loss: 6.7404e-04 -  
val\_loss: 7.0258e-04  
Epoch 6508/100000  
63/63 [=====] - 0s 3ms/step - loss: 6.6489e-04 -  
val\_loss: 0.0012  
Epoch 6509/100000  
63/63 [=====] - 0s 4ms/step - loss: 7.7793e-04 -  
val\_loss: 9.5929e-04  
Epoch 6510/100000  
63/63 [=====] - 0s 3ms/step - loss: 6.3163e-04 -  
val\_loss: 6.6332e-04  
Epoch 6511/100000  
63/63 [=====] - 0s 3ms/step - loss: 7.5809e-04 -  
val\_loss: 8.0991e-04  
Epoch 6512/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.6243e-04 -  
val\_loss: 0.0013  
Epoch 6513/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.6977e-04 -  
val\_loss: 7.6379e-04  
Epoch 6514/100000  
63/63 [=====] - 0s 4ms/step - loss: 7.7817e-04 -  
val\_loss: 9.2661e-04  
Epoch 6515/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.7130e-04 -  
val\_loss: 6.8746e-04  
Epoch 6516/100000  
63/63 [=====] - 0s 4ms/step - loss: 8.0370e-04 -  
val\_loss: 8.3730e-04  
Epoch 6517/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.1487e-04 -  
val\_loss: 0.0010  
Epoch 6518/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0010 - val\_loss:  
7.6586e-04

Epoch 6519/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0010 - val\_loss: 0.0011

Epoch 6520/100000  
63/63 [=====] - 0s 4ms/step - loss: 7.7514e-04 - val\_loss: 6.1156e-04

Epoch 6521/100000  
63/63 [=====] - 0s 4ms/step - loss: 6.9318e-04 - val\_loss: 8.3952e-04

Epoch 6522/100000  
63/63 [=====] - 0s 4ms/step - loss: 7.0020e-04 - val\_loss: 7.7004e-04

Epoch 6523/100000  
63/63 [=====] - 0s 3ms/step - loss: 7.7549e-04 - val\_loss: 6.1105e-04

Epoch 6524/100000  
63/63 [=====] - 0s 4ms/step - loss: 7.9458e-04 - val\_loss: 9.1155e-04

Epoch 6525/100000  
63/63 [=====] - 0s 4ms/step - loss: 8.3375e-04 - val\_loss: 0.0017

Epoch 6526/100000  
63/63 [=====] - 0s 4ms/step - loss: 9.8528e-04 - val\_loss: 0.0011

Epoch 6527/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.5052e-04 - val\_loss: 0.0010

Epoch 6528/100000  
63/63 [=====] - 0s 4ms/step - loss: 8.3236e-04 - val\_loss: 6.2885e-04

Epoch 6529/100000  
63/63 [=====] - 0s 4ms/step - loss: 6.4805e-04 - val\_loss: 9.5324e-04

Epoch 6530/100000  
63/63 [=====] - 0s 4ms/step - loss: 7.5185e-04 - val\_loss: 9.9052e-04

Epoch 6531/100000  
63/63 [=====] - 0s 3ms/step - loss: 7.9795e-04 - val\_loss: 8.5787e-04

Epoch 6532/100000  
63/63 [=====] - 0s 4ms/step - loss: 7.7290e-04 - val\_loss: 7.7965e-04

Epoch 6533/100000  
60/63 [=====>..] - ETA: 0s - loss: 6.4520e-04Epoch 06532:  
early stopping THR

63/63 [=====] - 0s 4ms/step - loss: 6.3491e-04 - val\_loss: 4.0777e-04

Epoch 6534/100000

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63/63 [=====] - 0s 3ms/step - loss: 7.4151e-04 -
val_loss: 7.6906e-04
Epoch 6535/100000
63/63 [=====] - 0s 3ms/step - loss: 7.6399e-04 -
val_loss: 9.9785e-04
Epoch 6536/100000
57/63 [=====>...] - ETA: 0s - loss: 8.1506e-04Epoch 06535:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 8.0300e-04 -
val_loss: 4.7495e-04
Epoch 6537/100000
63/63 [=====] - 0s 4ms/step - loss: 7.1216e-04 -
val_loss: 5.8443e-04
Epoch 6538/100000
63/63 [=====] - 0s 4ms/step - loss: 8.2592e-04 -
val_loss: 0.0014
Epoch 6539/100000
63/63 [=====] - 0s 4ms/step - loss: 8.0540e-04 -
val_loss: 5.3995e-04
Epoch 6540/100000
63/63 [=====] - 0s 3ms/step - loss: 6.8389e-04 -
val_loss: 7.6264e-04
Epoch 6541/100000
63/63 [=====] - 0s 3ms/step - loss: 7.2895e-04 -
val_loss: 6.5744e-04
Epoch 6542/100000
63/63 [=====] - 0s 4ms/step - loss: 7.5448e-04 -
val_loss: 6.2373e-04
Epoch 6543/100000
63/63 [=====] - 0s 4ms/step - loss: 6.6651e-04 -
val_loss: 5.7804e-04
Epoch 6544/100000
63/63 [=====] - 0s 4ms/step - loss: 6.4356e-04 -
val_loss: 6.9106e-04
Epoch 6545/100000
63/63 [=====] - 0s 3ms/step - loss: 6.9367e-04 -
val_loss: 8.5070e-04
Epoch 6546/100000
63/63 [=====] - 0s 3ms/step - loss: 5.4329e-04 -
val_loss: 5.7927e-04
Epoch 6547/100000
63/63 [=====] - 0s 4ms/step - loss: 6.0894e-04 -
val_loss: 0.0012
Epoch 6548/100000
63/63 [=====] - 0s 4ms/step - loss: 6.0952e-04 -
val_loss: 7.1019e-04
Epoch 6549/100000
63/63 [=====] - 0s 4ms/step - loss: 5.8753e-04 -

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val_loss: 5.2795e-04
Epoch 6550/100000
63/63 [=====] - 0s 4ms/step - loss: 9.2248e-04 -
val_loss: 9.8731e-04
Epoch 6551/100000
63/63 [=====] - 0s 4ms/step - loss: 8.1649e-04 -
val_loss: 5.8007e-04
Epoch 6552/100000
63/63 [=====] - 0s 4ms/step - loss: 6.5037e-04 -
val_loss: 0.0012
Epoch 6553/100000
63/63 [=====] - 0s 3ms/step - loss: 6.8241e-04 -
val_loss: 6.0671e-04
Epoch 6554/100000
63/63 [=====] - 0s 3ms/step - loss: 6.4598e-04 -
val_loss: 6.2254e-04
Epoch 6555/100000
63/63 [=====] - 0s 4ms/step - loss: 6.3456e-04 -
val_loss: 7.3023e-04
Epoch 6556/100000
63/63 [=====] - 0s 4ms/step - loss: 6.1827e-04 -
val_loss: 0.0014
Epoch 6557/100000
63/63 [=====] - 0s 4ms/step - loss: 0.0012 - val_loss:
0.0011
Epoch 6558/100000
63/63 [=====] - 0s 4ms/step - loss: 7.5764e-04 -
val_loss: 0.0018
Epoch 6559/100000
63/63 [=====] - 0s 4ms/step - loss: 8.2034e-04 -
val_loss: 0.0016
Epoch 6560/100000
63/63 [=====] - 0s 3ms/step - loss: 7.6495e-04 -
val_loss: 5.5950e-04
Epoch 6561/100000
55/63 [=====>...] - ETA: 0s - loss: 6.4822e-04Epoch 06560:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 6.3321e-04 -
val_loss: 3.9201e-04
Epoch 6562/100000
63/63 [=====] - 0s 3ms/step - loss: 8.2568e-04 -
val_loss: 0.0017
Epoch 6563/100000
63/63 [=====] - 0s 3ms/step - loss: 7.8038e-04 -
val_loss: 6.5977e-04
Epoch 6564/100000
63/63 [=====] - 0s 3ms/step - loss: 5.7725e-04 -
val_loss: 5.5352e-04

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Epoch 6565/100000
63/63 [=====] - 0s 3ms/step - loss: 6.6706e-04 -
val_loss: 6.4150e-04
Epoch 6566/100000
63/63 [=====] - 0s 4ms/step - loss: 6.7592e-04 -
val_loss: 5.8577e-04
Epoch 6567/100000
63/63 [=====] - 0s 4ms/step - loss: 6.1698e-04 -
val_loss: 7.4861e-04
Epoch 6568/100000
63/63 [=====] - 0s 4ms/step - loss: 5.8431e-04 -
val_loss: 0.0013
Epoch 6569/100000
63/63 [=====] - 0s 3ms/step - loss: 7.9553e-04 -
val_loss: 5.5002e-04
Epoch 6570/100000
63/63 [=====] - 0s 4ms/step - loss: 8.5738e-04 -
val_loss: 5.7381e-04
Epoch 6571/100000
63/63 [=====] - 0s 4ms/step - loss: 8.0634e-04 -
val_loss: 7.9973e-04
Epoch 6572/100000
63/63 [=====] - 0s 3ms/step - loss: 6.7296e-04 -
val_loss: 5.7524e-04
Epoch 6573/100000
63/63 [=====] - 0s 3ms/step - loss: 5.8713e-04 -
val_loss: 7.1990e-04
Epoch 6574/100000
63/63 [=====] - 0s 4ms/step - loss: 8.2848e-04 -
val_loss: 5.5371e-04
Epoch 6575/100000
63/63 [=====] - 0s 4ms/step - loss: 6.7757e-04 -
val_loss: 5.2456e-04
Epoch 6576/100000
60/63 [=====>...] - ETA: 0s - loss: 5.7188e-04Epoch 06575:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.6144e-04 -
val_loss: 4.3672e-04
Epoch 6577/100000
63/63 [=====] - 0s 4ms/step - loss: 6.4925e-04 -
val_loss: 5.5726e-04
Epoch 6578/100000
53/63 [=====>...] - ETA: 0s - loss: 7.2960e-04Epoch 06577:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 7.4349e-04 -
val_loss: 4.4286e-04
Epoch 6579/100000
63/63 [=====] - 0s 4ms/step - loss: 7.0415e-04 -

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val_loss: 7.7906e-04
Epoch 6580/100000
57/63 [=====>...] - ETA: 0s - loss: 6.2693e-04Epoch 06579:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 6.0960e-04 -
val_loss: 4.9076e-04
Epoch 6581/100000
63/63 [=====] - 0s 4ms/step - loss: 5.7354e-04 -
val_loss: 6.7412e-04
Epoch 6582/100000
63/63 [=====] - 0s 4ms/step - loss: 7.4367e-04 -
val_loss: 7.0102e-04
Epoch 6583/100000
57/63 [=====>...] - ETA: 0s - loss: 6.7134e-04Epoch 06582:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 6.6361e-04 -
val_loss: 4.9725e-04
Epoch 6584/100000
63/63 [=====] - 0s 3ms/step - loss: 8.1863e-04 -
val_loss: 6.4380e-04
Epoch 6585/100000
63/63 [=====] - 0s 4ms/step - loss: 7.0864e-04 -
val_loss: 9.3969e-04
Epoch 6586/100000
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val_loss:
0.0012
Epoch 6587/100000
63/63 [=====] - 0s 4ms/step - loss: 9.0665e-04 -
val_loss: 0.0014
Epoch 6588/100000
63/63 [=====] - 0s 4ms/step - loss: 9.9422e-04 -
val_loss: 7.7675e-04
Epoch 6589/100000
63/63 [=====] - 0s 4ms/step - loss: 9.7972e-04 -
val_loss: 8.5244e-04
Epoch 6590/100000
63/63 [=====] - 0s 3ms/step - loss: 7.7240e-04 -
val_loss: 0.0014
Epoch 6591/100000
63/63 [=====] - 0s 4ms/step - loss: 9.3518e-04 -
val_loss: 6.2121e-04
Epoch 6592/100000
63/63 [=====] - 0s 4ms/step - loss: 9.1194e-04 -
val_loss: 0.0012
Epoch 6593/100000
63/63 [=====] - 0s 3ms/step - loss: 9.1406e-04 -
val_loss: 7.7492e-04
Epoch 6594/100000

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63/63 [=====] - 0s 4ms/step - loss: 7.7280e-04 -  
val\_loss: 8.7881e-04  
Epoch 6595/100000  
63/63 [=====] - 0s 4ms/step - loss: 7.1405e-04 -  
val\_loss: 6.6347e-04  
Epoch 6596/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.5892e-04 -  
val\_loss: 9.6764e-04  
Epoch 6597/100000  
63/63 [=====] - 0s 4ms/step - loss: 7.4390e-04 -  
val\_loss: 7.2970e-04  
Epoch 6598/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.6743e-04 -  
val\_loss: 7.4142e-04  
Epoch 6599/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss:  
6.3784e-04  
Epoch 6600/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss:  
7.1476e-04  
Epoch 6601/100000  
63/63 [=====] - 0s 5ms/step - loss: 9.0581e-04 -  
val\_loss: 5.2888e-04  
Epoch 6602/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0012 - val\_loss:  
5.9811e-04  
Epoch 6603/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.8776e-04 -  
val\_loss: 7.0516e-04  
Epoch 6604/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss:  
8.1615e-04  
Epoch 6605/100000  
63/63 [=====] - 0s 4ms/step - loss: 7.5062e-04 -  
val\_loss: 6.4882e-04  
Epoch 6606/100000  
63/63 [=====] - 0s 3ms/step - loss: 6.7072e-04 -  
val\_loss: 5.6709e-04  
Epoch 6607/100000  
63/63 [=====] - 0s 3ms/step - loss: 6.2175e-04 -  
val\_loss: 6.7410e-04  
Epoch 6608/100000  
63/63 [=====] - 0s 4ms/step - loss: 6.1475e-04 -  
val\_loss: 5.2139e-04  
Epoch 6609/100000  
63/63 [=====] - 0s 4ms/step - loss: 6.3148e-04 -  
val\_loss: 8.9841e-04  
Epoch 6610/100000

63/63 [=====] - 0s 3ms/step - loss: 8.2082e-04 -  
val\_loss: 5.0275e-04  
Epoch 6611/100000  
63/63 [=====] - 0s 4ms/step - loss: 8.2239e-04 -  
val\_loss: 7.3217e-04  
Epoch 6612/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.0271e-04 -  
val\_loss: 7.7112e-04  
Epoch 6613/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.6848e-04 -  
val\_loss: 8.6889e-04  
Epoch 6614/100000  
63/63 [=====] - 0s 4ms/step - loss: 7.2983e-04 -  
val\_loss: 6.5952e-04  
Epoch 6615/100000  
63/63 [=====] - 0s 4ms/step - loss: 7.7554e-04 -  
val\_loss: 9.1583e-04  
Epoch 6616/100000  
63/63 [=====] - 0s 4ms/step - loss: 7.3272e-04 -  
val\_loss: 0.0011  
Epoch 6617/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.3082e-04 -  
val\_loss: 7.5538e-04  
Epoch 6618/100000  
63/63 [=====] - 0s 4ms/step - loss: 7.7602e-04 -  
val\_loss: 5.7726e-04  
Epoch 6619/100000  
63/63 [=====] - 0s 4ms/step - loss: 6.9023e-04 -  
val\_loss: 7.0767e-04  
Epoch 6620/100000  
63/63 [=====] - 0s 4ms/step - loss: 7.7217e-04 -  
val\_loss: 7.7803e-04  
Epoch 6621/100000  
63/63 [=====] - 0s 5ms/step - loss: 7.0190e-04 -  
val\_loss: 9.0320e-04  
Epoch 6622/100000  
63/63 [=====] - 0s 5ms/step - loss: 7.4252e-04 -  
val\_loss: 8.1623e-04  
Epoch 6623/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.3935e-04 -  
val\_loss: 9.3814e-04  
Epoch 6624/100000  
63/63 [=====] - 0s 4ms/step - loss: 7.7102e-04 -  
val\_loss: 7.9160e-04  
Epoch 6625/100000  
63/63 [=====] - 0s 4ms/step - loss: 8.0258e-04 -  
val\_loss: 8.6818e-04  
Epoch 6626/100000

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63/63 [=====] - 0s 3ms/step - loss: 8.3102e-04 -
val_loss: 5.3174e-04
Epoch 6627/100000
63/63 [=====] - 0s 4ms/step - loss: 7.2799e-04 -
val_loss: 8.1292e-04
Epoch 6628/100000
63/63 [=====] - 0s 4ms/step - loss: 6.6791e-04 -
val_loss: 6.3317e-04
Epoch 6629/100000
63/63 [=====] - 0s 4ms/step - loss: 0.0010 - val_loss:
5.2222e-04
Epoch 6630/100000
57/63 [=====>...] - ETA: 0s - loss: 5.7417e-04Epoch 06629:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.8144e-04 -
val_loss: 4.8455e-04
Epoch 6631/100000
63/63 [=====] - 0s 4ms/step - loss: 5.7005e-04 -
val_loss: 5.6716e-04
Epoch 6632/100000
63/63 [=====] - 0s 4ms/step - loss: 6.3809e-04 -
val_loss: 7.3195e-04
Epoch 6633/100000
63/63 [=====] - 0s 4ms/step - loss: 6.8005e-04 -
val_loss: 8.2719e-04
Epoch 6634/100000
63/63 [=====] - 0s 4ms/step - loss: 6.6723e-04 -
val_loss: 8.3493e-04
Epoch 6635/100000
63/63 [=====] - 0s 4ms/step - loss: 6.6131e-04 -
val_loss: 8.2490e-04
Epoch 6636/100000
63/63 [=====] - 0s 4ms/step - loss: 7.2516e-04 -
val_loss: 7.5882e-04
Epoch 6637/100000
63/63 [=====] - 0s 4ms/step - loss: 6.1735e-04 -
val_loss: 6.7098e-04
Epoch 6638/100000
63/63 [=====] - 0s 4ms/step - loss: 5.2065e-04 -
val_loss: 7.4470e-04
Epoch 6639/100000
63/63 [=====] - 0s 4ms/step - loss: 6.6062e-04 -
val_loss: 6.0209e-04
Epoch 6640/100000
63/63 [=====] - 0s 4ms/step - loss: 6.4831e-04 -
val_loss: 5.4598e-04
Epoch 6641/100000
63/63 [=====] - 0s 4ms/step - loss: 8.6683e-04 -

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val_loss: 6.2567e-04
Epoch 6642/100000
63/63 [=====] - 0s 3ms/step - loss: 8.3461e-04 -
val_loss: 8.6195e-04
Epoch 6643/100000
63/63 [=====] - 0s 4ms/step - loss: 6.1852e-04 -
val_loss: 6.2196e-04
Epoch 6644/100000
49/63 [=====>...] - ETA: 0s - loss: 7.0958e-04Epoch 06643:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 6.5157e-04 -
val_loss: 4.9401e-04
Epoch 6645/100000
63/63 [=====] - 0s 3ms/step - loss: 7.7871e-04 -
val_loss: 6.2769e-04
Epoch 6646/100000
63/63 [=====] - 0s 3ms/step - loss: 8.0174e-04 -
val_loss: 6.2942e-04
Epoch 6647/100000
63/63 [=====] - 0s 4ms/step - loss: 5.9072e-04 -
val_loss: 9.7972e-04
Epoch 6648/100000
63/63 [=====] - 0s 4ms/step - loss: 6.1600e-04 -
val_loss: 5.0682e-04
Epoch 6649/100000
63/63 [=====] - 0s 3ms/step - loss: 5.8557e-04 -
val_loss: 6.4206e-04
Epoch 6650/100000
63/63 [=====] - 0s 3ms/step - loss: 5.6745e-04 -
val_loss: 5.6004e-04
Epoch 6651/100000
63/63 [=====] - 0s 3ms/step - loss: 6.4869e-04 -
val_loss: 7.3176e-04
Epoch 6652/100000
63/63 [=====] - 0s 4ms/step - loss: 5.7291e-04 -
val_loss: 8.6102e-04
Epoch 6653/100000
63/63 [=====] - 0s 3ms/step - loss: 8.9703e-04 -
val_loss: 6.7812e-04
Epoch 6654/100000
63/63 [=====] - 0s 3ms/step - loss: 6.8341e-04 -
val_loss: 8.1409e-04
Epoch 6655/100000
63/63 [=====] - 0s 3ms/step - loss: 4.9775e-04 -
val_loss: 6.9794e-04
Epoch 6656/100000
44/63 [=====>...] - ETA: 0s - loss: 7.5851e-04Epoch 06655:
early stopping THR

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63/63 [=====] - 0s 3ms/step - loss: 7.2986e-04 -
val_loss: 4.4427e-04
Epoch 6657/100000
63/63 [=====] - 0s 3ms/step - loss: 7.0200e-04 -
val_loss: 5.1219e-04
Epoch 6658/100000
63/63 [=====] - 0s 4ms/step - loss: 6.9434e-04 -
val_loss: 6.9321e-04
Epoch 6659/100000
63/63 [=====] - 0s 3ms/step - loss: 7.3733e-04 -
val_loss: 8.4400e-04
Epoch 6660/100000
63/63 [=====] - 0s 3ms/step - loss: 6.6879e-04 -
val_loss: 5.4015e-04
Epoch 6661/100000
63/63 [=====] - 0s 4ms/step - loss: 7.1396e-04 -
val_loss: 6.3158e-04
Epoch 6662/100000
63/63 [=====] - 0s 3ms/step - loss: 5.9044e-04 -
val_loss: 5.9936e-04
Epoch 6663/100000
63/63 [=====] - 0s 4ms/step - loss: 6.5623e-04 -
val_loss: 6.9507e-04
Epoch 6664/100000
63/63 [=====] - 0s 4ms/step - loss: 4.8430e-04 -
val_loss: 5.3646e-04
Epoch 6665/100000
63/63 [=====] - 0s 6ms/step - loss: 5.7564e-04 -
val_loss: 5.1991e-04
Epoch 6666/100000
63/63 [=====] - 0s 4ms/step - loss: 7.9649e-04 -
val_loss: 6.0189e-04
Epoch 6667/100000
63/63 [=====] - 0s 4ms/step - loss: 5.1273e-04 -
val_loss: 6.4110e-04
Epoch 6668/100000
59/63 [=====>...] - ETA: 0s - loss: 7.0619e-04Epoch 06667:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 7.3040e-04 -
val_loss: 4.4630e-04
Epoch 6669/100000
53/63 [=====>...] - ETA: 0s - loss: 6.7251e-04Epoch 06668:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 6.5478e-04 -
val_loss: 4.3530e-04
Epoch 6670/100000
63/63 [=====] - 0s 3ms/step - loss: 7.2467e-04 -
val_loss: 6.1449e-04

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Epoch 6671/100000
63/63 [=====] - 0s 3ms/step - loss: 4.9380e-04 -
val_loss: 5.9796e-04
Epoch 6672/100000
63/63 [=====] - 0s 4ms/step - loss: 6.1278e-04 -
val_loss: 6.7549e-04
Epoch 6673/100000
63/63 [=====] - 0s 4ms/step - loss: 6.2865e-04 -
val_loss: 6.8357e-04
Epoch 6674/100000
63/63 [=====] - 0s 4ms/step - loss: 5.2463e-04 -
val_loss: 7.0880e-04
Epoch 6675/100000
63/63 [=====] - 0s 3ms/step - loss: 5.5497e-04 -
val_loss: 7.8210e-04
Epoch 6676/100000
63/63 [=====] - 0s 4ms/step - loss: 6.5303e-04 -
val_loss: 8.1182e-04
Epoch 6677/100000
63/63 [=====] - 0s 4ms/step - loss: 5.8362e-04 -
val_loss: 7.2439e-04
Epoch 6678/100000
63/63 [=====] - 0s 4ms/step - loss: 7.3904e-04 -
val_loss: 6.8290e-04
Epoch 6679/100000
51/63 [=====>...] - ETA: 0s - loss: 8.1142e-04Epoch 06678:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 7.8650e-04 -
val_loss: 4.5120e-04
Epoch 6680/100000
63/63 [=====] - 0s 4ms/step - loss: 5.3954e-04 -
val_loss: 6.0245e-04
Epoch 6681/100000
63/63 [=====] - 0s 4ms/step - loss: 5.6568e-04 -
val_loss: 9.2559e-04
Epoch 6682/100000
63/63 [=====] - 0s 4ms/step - loss: 6.7561e-04 -
val_loss: 9.5602e-04
Epoch 6683/100000
63/63 [=====] - 0s 4ms/step - loss: 4.4128e-04 -
val_loss: 5.9812e-04
Epoch 6684/100000
63/63 [=====] - 0s 3ms/step - loss: 5.4170e-04 -
val_loss: 7.2590e-04
Epoch 6685/100000
63/63 [=====] - 0s 4ms/step - loss: 7.0598e-04 -
val_loss: 0.0017
Epoch 6686/100000

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63/63 [=====] - 0s 4ms/step - loss: 0.0014 - val_loss:
0.0012
Epoch 6687/100000
63/63 [=====] - 0s 4ms/step - loss: 7.0189e-04 -
val_loss: 6.5459e-04
Epoch 6688/100000
63/63 [=====] - 0s 5ms/step - loss: 8.5115e-04 -
val_loss: 5.0533e-04
Epoch 6689/100000
63/63 [=====] - 0s 4ms/step - loss: 5.9783e-04 -
val_loss: 5.0896e-04
Epoch 6690/100000
63/63 [=====] - 0s 6ms/step - loss: 5.6484e-04 -
val_loss: 5.1842e-04
Epoch 6691/100000
63/63 [=====] - 0s 4ms/step - loss: 5.0380e-04 -
val_loss: 6.2185e-04
Epoch 6692/100000
63/63 [=====] - 0s 4ms/step - loss: 5.7915e-04 -
val_loss: 7.6011e-04
Epoch 6693/100000
57/63 [=====>...] - ETA: 0s - loss: 6.9550e-04Epoch 06692:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 6.8910e-04 -
val_loss: 4.8669e-04
Epoch 6694/100000
63/63 [=====] - 0s 4ms/step - loss: 5.0269e-04 -
val_loss: 6.7445e-04
Epoch 6695/100000
63/63 [=====] - 0s 4ms/step - loss: 5.3094e-04 -
val_loss: 5.5577e-04
Epoch 6696/100000
63/63 [=====] - 0s 3ms/step - loss: 4.9894e-04 -
val_loss: 5.7280e-04
Epoch 6697/100000
58/63 [=====>...] - ETA: 0s - loss: 6.3840e-04Epoch 06696:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 6.1720e-04 -
val_loss: 4.5053e-04
Epoch 6698/100000
63/63 [=====] - 0s 4ms/step - loss: 5.3782e-04 -
val_loss: 5.5603e-04
Epoch 6699/100000
63/63 [=====] - 0s 4ms/step - loss: 6.3006e-04 -
val_loss: 9.9400e-04
Epoch 6700/100000
63/63 [=====] - 0s 5ms/step - loss: 6.1516e-04 -
val_loss: 5.0037e-04

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Epoch 6701/100000  
50/63 [=====>...] - ETA: 0s - loss: 5.7024e-04Epoch 06700:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 6.0143e-04 -  
val\_loss: 4.9946e-04  
Epoch 6702/100000  
63/63 [=====] - 0s 4ms/step - loss: 6.1871e-04 -  
val\_loss: 5.6114e-04  
Epoch 6703/100000  
56/63 [=====>...] - ETA: 0s - loss: 6.3391e-04Epoch 06702:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 5.9441e-04 -  
val\_loss: 3.7091e-04  
Epoch 6704/100000  
63/63 [=====] - 0s 4ms/step - loss: 5.3005e-04 -  
val\_loss: 6.2603e-04  
Epoch 6705/100000  
63/63 [=====] - 0s 4ms/step - loss: 5.1607e-04 -  
val\_loss: 7.1537e-04  
Epoch 6706/100000  
63/63 [=====] - 0s 4ms/step - loss: 9.2553e-04 -  
val\_loss: 6.6452e-04  
Epoch 6707/100000  
63/63 [=====] - 0s 4ms/step - loss: 5.0992e-04 -  
val\_loss: 5.9015e-04  
Epoch 6708/100000  
63/63 [=====] - 0s 4ms/step - loss: 7.3107e-04 -  
val\_loss: 5.7769e-04  
Epoch 6709/100000  
63/63 [=====] - 0s 4ms/step - loss: 8.2227e-04 -  
val\_loss: 9.2175e-04  
Epoch 6710/100000  
63/63 [=====] - 0s 4ms/step - loss: 6.4153e-04 -  
val\_loss: 0.0010  
Epoch 6711/100000  
63/63 [=====] - 0s 4ms/step - loss: 9.6994e-04 -  
val\_loss: 9.0440e-04  
Epoch 6712/100000  
63/63 [=====] - 0s 4ms/step - loss: 6.1620e-04 -  
val\_loss: 7.8996e-04  
Epoch 6713/100000  
63/63 [=====] - 0s 4ms/step - loss: 9.3189e-04 -  
val\_loss: 0.0011  
Epoch 6714/100000  
63/63 [=====] - 0s 4ms/step - loss: 6.1558e-04 -  
val\_loss: 6.9377e-04  
Epoch 6715/100000  
63/63 [=====] - 0s 4ms/step - loss: 6.6309e-04 -

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val_loss: 0.0011
Epoch 6716/100000
63/63 [=====] - 0s 4ms/step - loss: 6.8506e-04 -
val_loss: 9.3622e-04
Epoch 6717/100000
53/63 [=====>...] - ETA: 0s - loss: 6.7452e-04Epoch 06716:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 6.2992e-04 -
val_loss: 4.9029e-04
Epoch 6718/100000
52/63 [=====>...] - ETA: 0s - loss: 4.4869e-04Epoch 06717:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.9893e-04 -
val_loss: 4.5237e-04
Epoch 6719/100000
63/63 [=====] - 0s 4ms/step - loss: 5.5416e-04 -
val_loss: 5.3278e-04
Epoch 6720/100000
63/63 [=====] - 0s 4ms/step - loss: 5.7419e-04 -
val_loss: 8.3502e-04
Epoch 6721/100000
63/63 [=====] - 0s 4ms/step - loss: 6.2961e-04 -
val_loss: 5.3100e-04
Epoch 6722/100000
55/63 [=====>...] - ETA: 0s - loss: 5.2381e-04Epoch 06721:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.2885e-04 -
val_loss: 3.8526e-04
Epoch 6723/100000
63/63 [=====] - 0s 4ms/step - loss: 6.1039e-04 -
val_loss: 5.5428e-04
Epoch 6724/100000
63/63 [=====] - 0s 4ms/step - loss: 6.4662e-04 -
val_loss: 6.8247e-04
Epoch 6725/100000
63/63 [=====] - 0s 4ms/step - loss: 6.5512e-04 -
val_loss: 7.7353e-04
Epoch 6726/100000
63/63 [=====] - 0s 4ms/step - loss: 6.4018e-04 -
val_loss: 6.3192e-04
Epoch 6727/100000
63/63 [=====] - 0s 4ms/step - loss: 9.1310e-04 -
val_loss: 5.2543e-04
Epoch 6728/100000
63/63 [=====] - 0s 4ms/step - loss: 6.6469e-04 -
val_loss: 5.9875e-04
Epoch 6729/100000
63/63 [=====] - 0s 4ms/step - loss: 8.1613e-04 -

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val_loss: 5.8806e-04
Epoch 6730/100000
55/63 [=====>...] - ETA: 0s - loss: 6.9305e-04Epoch 06729:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 6.7556e-04 -
val_loss: 4.4930e-04
Epoch 6731/100000
63/63 [=====] - 0s 4ms/step - loss: 8.8526e-04 -
val_loss: 0.0014
Epoch 6732/100000
63/63 [=====] - 0s 4ms/step - loss: 7.0721e-04 -
val_loss: 8.8875e-04
Epoch 6733/100000
63/63 [=====] - 0s 3ms/step - loss: 5.9788e-04 -
val_loss: 5.9105e-04
Epoch 6734/100000
63/63 [=====] - 0s 3ms/step - loss: 5.1316e-04 -
val_loss: 6.1375e-04
Epoch 6735/100000
63/63 [=====] - 0s 3ms/step - loss: 7.3357e-04 -
val_loss: 6.6967e-04
Epoch 6736/100000
63/63 [=====] - 0s 3ms/step - loss: 7.4242e-04 -
val_loss: 5.1137e-04
Epoch 6737/100000
63/63 [=====] - 0s 3ms/step - loss: 0.0010 - val_loss:
0.0014
Epoch 6738/100000
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val_loss:
0.0018
Epoch 6739/100000
61/63 [=====>.] - ETA: 0s - loss: 8.8212e-04Epoch 06738:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 8.6778e-04 -
val_loss: 4.3123e-04
Epoch 6740/100000
63/63 [=====] - 0s 4ms/step - loss: 9.7680e-04 -
val_loss: 6.6182e-04
Epoch 6741/100000
63/63 [=====] - 0s 4ms/step - loss: 8.4764e-04 -
val_loss: 0.0012
Epoch 6742/100000
63/63 [=====] - 0s 4ms/step - loss: 8.2449e-04 -
val_loss: 0.0013
Epoch 6743/100000
63/63 [=====] - 0s 4ms/step - loss: 8.7949e-04 -
val_loss: 0.0011
Epoch 6744/100000

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63/63 [=====] - 0s 4ms/step - loss: 9.2037e-04 -
val_loss: 6.5459e-04
Epoch 6745/100000
53/63 [=====>...] - ETA: 0s - loss: 6.3280e-04Epoch 06744:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 6.6665e-04 -
val_loss: 4.2767e-04
Epoch 6746/100000
63/63 [=====] - 0s 3ms/step - loss: 6.2558e-04 -
val_loss: 6.5961e-04
Epoch 6747/100000
54/63 [=====>...] - ETA: 0s - loss: 6.2876e-04Epoch 06746:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 6.3968e-04 -
val_loss: 4.2185e-04
Epoch 6748/100000
63/63 [=====] - 0s 4ms/step - loss: 6.8115e-04 -
val_loss: 7.0595e-04
Epoch 6749/100000
63/63 [=====] - 0s 3ms/step - loss: 8.0521e-04 -
val_loss: 0.0010
Epoch 6750/100000
63/63 [=====] - 0s 3ms/step - loss: 7.5103e-04 -
val_loss: 6.6767e-04
Epoch 6751/100000
63/63 [=====] - 0s 3ms/step - loss: 8.3669e-04 -
val_loss: 0.0018
Epoch 6752/100000
63/63 [=====] - 0s 4ms/step - loss: 7.9320e-04 -
val_loss: 6.9389e-04
Epoch 6753/100000
63/63 [=====] - 0s 4ms/step - loss: 6.6410e-04 -
val_loss: 5.0574e-04
Epoch 6754/100000
63/63 [=====] - 0s 4ms/step - loss: 7.5267e-04 -
val_loss: 6.4083e-04
Epoch 6755/100000
63/63 [=====] - 0s 4ms/step - loss: 6.1702e-04 -
val_loss: 7.0396e-04
Epoch 6756/100000
63/63 [=====] - 0s 3ms/step - loss: 5.5381e-04 -
val_loss: 6.5081e-04
Epoch 6757/100000
63/63 [=====] - 0s 4ms/step - loss: 5.0699e-04 -
val_loss: 6.6720e-04
Epoch 6758/100000
63/63 [=====] - 0s 3ms/step - loss: 6.0092e-04 -
val_loss: 5.7670e-04

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Epoch 6759/100000
63/63 [=====] - 0s 4ms/step - loss: 6.6990e-04 -
val_loss: 6.7150e-04
Epoch 6760/100000
63/63 [=====] - 0s 4ms/step - loss: 7.8972e-04 -
val_loss: 5.2845e-04
Epoch 6761/100000
63/63 [=====] - 0s 4ms/step - loss: 6.6679e-04 -
val_loss: 6.1740e-04
Epoch 6762/100000
63/63 [=====] - 0s 4ms/step - loss: 6.9172e-04 -
val_loss: 7.0638e-04
Epoch 6763/100000
63/63 [=====] - 0s 4ms/step - loss: 6.7567e-04 -
val_loss: 7.3399e-04
Epoch 6764/100000
63/63 [=====] - 0s 4ms/step - loss: 8.1074e-04 -
val_loss: 6.7679e-04
Epoch 6765/100000
63/63 [=====] - 0s 4ms/step - loss: 8.2918e-04 -
val_loss: 5.9618e-04
Epoch 6766/100000
63/63 [=====] - 0s 4ms/step - loss: 7.0175e-04 -
val_loss: 5.8023e-04
Epoch 6767/100000
43/63 [=====>...] - ETA: 0s - loss: 6.6183e-04Epoch 06766:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 6.7434e-04 -
val_loss: 4.9290e-04
Epoch 6768/100000
63/63 [=====] - 0s 3ms/step - loss: 8.1541e-04 -
val_loss: 6.0140e-04
Epoch 6769/100000
63/63 [=====] - 0s 3ms/step - loss: 6.6150e-04 -
val_loss: 7.7446e-04
Epoch 6770/100000
63/63 [=====] - 0s 4ms/step - loss: 7.5502e-04 -
val_loss: 9.1897e-04
Epoch 6771/100000
63/63 [=====] - 0s 3ms/step - loss: 7.3589e-04 -
val_loss: 5.5489e-04
Epoch 6772/100000
55/63 [=====>...] - ETA: 0s - loss: 6.7231e-04Epoch 06771:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 6.6654e-04 -
val_loss: 3.9468e-04
Epoch 6773/100000
51/63 [=====>...] - ETA: 0s - loss: 4.7078e-04Epoch 06772:

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early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.0368e-04 -
val_loss: 4.9243e-04
Epoch 6774/100000
47/63 [=====>...] - ETA: 0s - loss: 4.7899e-04Epoch 06773:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.0289e-04 -
val_loss: 3.9198e-04
Epoch 6775/100000
55/63 [=====>...] - ETA: 0s - loss: 7.0339e-04Epoch 06774:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 6.9107e-04 -
val_loss: 4.1588e-04
Epoch 6776/100000
63/63 [=====] - 0s 4ms/step - loss: 5.5117e-04 -
val_loss: 7.7006e-04
Epoch 6777/100000
63/63 [=====] - 0s 4ms/step - loss: 7.0521e-04 -
val_loss: 5.8051e-04
Epoch 6778/100000
63/63 [=====] - 0s 4ms/step - loss: 6.3645e-04 -
val_loss: 6.7196e-04
Epoch 6779/100000
63/63 [=====] - 0s 4ms/step - loss: 6.6599e-04 -
val_loss: 6.9724e-04
Epoch 6780/100000
63/63 [=====] - 0s 4ms/step - loss: 8.0912e-04 -
val_loss: 0.0028
Epoch 6781/100000
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val_loss:
6.8260e-04
Epoch 6782/100000
63/63 [=====] - 0s 4ms/step - loss: 8.1567e-04 -
val_loss: 5.2512e-04
Epoch 6783/100000
63/63 [=====] - 0s 4ms/step - loss: 6.7897e-04 -
val_loss: 5.6894e-04
Epoch 6784/100000
63/63 [=====] - 0s 4ms/step - loss: 6.0589e-04 -
val_loss: 6.0050e-04
Epoch 6785/100000
63/63 [=====] - 0s 4ms/step - loss: 8.1220e-04 -
val_loss: 5.4077e-04
Epoch 6786/100000
63/63 [=====] - 0s 4ms/step - loss: 5.2890e-04 -
val_loss: 6.6208e-04
Epoch 6787/100000
63/63 [=====] - 0s 4ms/step - loss: 6.9434e-04 -

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val_loss: 6.6475e-04
Epoch 6788/100000
63/63 [=====] - 0s 4ms/step - loss: 8.4766e-04 -
val_loss: 7.2159e-04
Epoch 6789/100000
56/63 [=====>...] - ETA: 0s - loss: 7.2283e-04Epoch 06788:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 7.2761e-04 -
val_loss: 4.2876e-04
Epoch 6790/100000
63/63 [=====] - 0s 3ms/step - loss: 6.8935e-04 -
val_loss: 6.3230e-04
Epoch 6791/100000
58/63 [=====>...] - ETA: 0s - loss: 7.8091e-04Epoch 06790:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 7.6464e-04 -
val_loss: 4.7553e-04
Epoch 6792/100000
50/63 [=====>...] - ETA: 0s - loss: 4.5745e-04Epoch 06791:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.6303e-04 -
val_loss: 4.4834e-04
Epoch 6793/100000
63/63 [=====] - 0s 4ms/step - loss: 8.0638e-04 -
val_loss: 0.0013
Epoch 6794/100000
63/63 [=====] - 0s 3ms/step - loss: 9.7965e-04 -
val_loss: 7.7247e-04
Epoch 6795/100000
63/63 [=====] - 0s 4ms/step - loss: 5.6161e-04 -
val_loss: 8.7833e-04
Epoch 6796/100000
44/63 [=====>...] - ETA: 0s - loss: 4.1733e-04Epoch 06795:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 4.2821e-04 -
val_loss: 4.2911e-04
Epoch 6797/100000
63/63 [=====] - 0s 4ms/step - loss: 5.6138e-04 -
val_loss: 8.4920e-04
Epoch 6798/100000
63/63 [=====] - 0s 4ms/step - loss: 5.5348e-04 -
val_loss: 6.8867e-04
Epoch 6799/100000
63/63 [=====] - 0s 3ms/step - loss: 6.2269e-04 -
val_loss: 7.3924e-04
Epoch 6800/100000
63/63 [=====] - 0s 3ms/step - loss: 5.7789e-04 -
val_loss: 5.0005e-04

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Epoch 6801/100000
61/63 [=====>.] - ETA: 0s - loss: 7.3274e-04Epoch 06800:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 7.2400e-04 -
val_loss: 4.8158e-04
Epoch 6802/100000
45/63 [=====>...] - ETA: 0s - loss: 5.7967e-04Epoch 06801:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 5.5901e-04 -
val_loss: 4.4340e-04
Epoch 6803/100000
63/63 [=====] - 0s 4ms/step - loss: 6.9945e-04 -
val_loss: 7.0116e-04
Epoch 6804/100000
63/63 [=====] - 0s 5ms/step - loss: 6.8437e-04 -
val_loss: 0.0010
Epoch 6805/100000
63/63 [=====] - 0s 3ms/step - loss: 5.6745e-04 -
val_loss: 5.8272e-04
Epoch 6806/100000
61/63 [=====>.] - ETA: 0s - loss: 7.5250e-04Epoch 06805:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 7.5970e-04 -
val_loss: 4.3721e-04
Epoch 6807/100000
63/63 [=====] - 0s 4ms/step - loss: 7.7784e-04 -
val_loss: 0.0012
Epoch 6808/100000
63/63 [=====] - 0s 4ms/step - loss: 8.0782e-04 -
val_loss: 9.8434e-04
Epoch 6809/100000
63/63 [=====] - 0s 4ms/step - loss: 6.7842e-04 -
val_loss: 6.5517e-04
Epoch 6810/100000
63/63 [=====] - 0s 3ms/step - loss: 5.6151e-04 -
val_loss: 7.7647e-04
Epoch 6811/100000
63/63 [=====] - 0s 5ms/step - loss: 7.0876e-04 -
val_loss: 7.6323e-04
Epoch 6812/100000
63/63 [=====] - 0s 4ms/step - loss: 6.4127e-04 -
val_loss: 7.3241e-04
Epoch 6813/100000
63/63 [=====] - 0s 4ms/step - loss: 5.7561e-04 -
val_loss: 7.5674e-04
Epoch 6814/100000
51/63 [=====>...] - ETA: 0s - loss: 6.8143e-04Epoch 06813:
early stopping THR

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63/63 [=====] - 0s 4ms/step - loss: 6.6169e-04 -
val_loss: 4.5679e-04
Epoch 6815/100000
57/63 [=====>...] - ETA: 0s - loss: 6.6786e-04Epoch 06814:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 6.3856e-04 -
val_loss: 4.6772e-04
Epoch 6816/100000
63/63 [=====] - 0s 4ms/step - loss: 5.1734e-04 -
val_loss: 5.4656e-04
Epoch 6817/100000
52/63 [=====>...] - ETA: 0s - loss: 6.4401e-04Epoch 06816:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 6.7448e-04 -
val_loss: 3.0771e-04
Epoch 6818/100000
63/63 [=====] - 0s 4ms/step - loss: 5.8402e-04 -
val_loss: 7.2109e-04
Epoch 6819/100000
54/63 [=====>...] - ETA: 0s - loss: 6.8427e-04Epoch 06818:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 6.4350e-04 -
val_loss: 3.3416e-04
Epoch 6820/100000
61/63 [=====>.] - ETA: 0s - loss: 6.1092e-04Epoch 06819:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 6.1102e-04 -
val_loss: 4.2460e-04
Epoch 6821/100000
63/63 [=====] - 0s 4ms/step - loss: 5.3478e-04 -
val_loss: 7.4741e-04
Epoch 6822/100000
63/63 [=====] - 0s 4ms/step - loss: 5.0785e-04 -
val_loss: 5.0962e-04
Epoch 6823/100000
59/63 [=====>..] - ETA: 0s - loss: 4.7624e-04Epoch 06822:
early stopping THR
63/63 [=====] - 0s 5ms/step - loss: 4.7960e-04 -
val_loss: 4.3128e-04
Epoch 6824/100000
63/63 [=====] - 0s 4ms/step - loss: 5.9247e-04 -
val_loss: 5.6682e-04
Epoch 6825/100000
55/63 [=====>...] - ETA: 0s - loss: 5.4270e-04Epoch 06824:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.4141e-04 -
val_loss: 4.5058e-04
Epoch 6826/100000

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63/63 [=====] - 0s 4ms/step - loss: 5.2526e-04 -
val_loss: 6.4247e-04
Epoch 6827/100000
57/63 [=====>...] - ETA: 0s - loss: 5.9669e-04Epoch 06826:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 6.0893e-04 -
val_loss: 4.6546e-04
Epoch 6828/100000
63/63 [=====] - 0s 4ms/step - loss: 6.7980e-04 -
val_loss: 8.5040e-04
Epoch 6829/100000
63/63 [=====] - 0s 4ms/step - loss: 6.3422e-04 -
val_loss: 8.0003e-04
Epoch 6830/100000
63/63 [=====] - 0s 4ms/step - loss: 9.3197e-04 -
val_loss: 6.8682e-04
Epoch 6831/100000
63/63 [=====] - 0s 3ms/step - loss: 5.6292e-04 -
val_loss: 8.5588e-04
Epoch 6832/100000
56/63 [=====>...] - ETA: 0s - loss: 4.9644e-04Epoch 06831:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.0648e-04 -
val_loss: 4.9626e-04
Epoch 6833/100000
56/63 [=====>...] - ETA: 0s - loss: 4.2182e-04Epoch 06832:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.6930e-04 -
val_loss: 4.2091e-04
Epoch 6834/100000
54/63 [=====>...] - ETA: 0s - loss: 6.6864e-04Epoch 06833:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 6.9559e-04 -
val_loss: 4.5427e-04
Epoch 6835/100000
63/63 [=====] - 0s 3ms/step - loss: 6.9262e-04 -
val_loss: 7.4193e-04
Epoch 6836/100000
59/63 [=====>..] - ETA: 0s - loss: 6.5261e-04Epoch 06835:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 6.4293e-04 -
val_loss: 4.3309e-04
Epoch 6837/100000
63/63 [=====] - 0s 4ms/step - loss: 7.1543e-04 -
val_loss: 0.0010
Epoch 6838/100000
63/63 [=====] - 0s 4ms/step - loss: 5.8018e-04 -
val_loss: 6.2800e-04

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Epoch 6839/100000
63/63 [=====] - 0s 4ms/step - loss: 5.1492e-04 -
val_loss: 6.0872e-04
Epoch 6840/100000
63/63 [=====] - 0s 4ms/step - loss: 6.3608e-04 -
val_loss: 6.0460e-04
Epoch 6841/100000
63/63 [=====] - 0s 3ms/step - loss: 4.2279e-04 -
val_loss: 5.8658e-04
Epoch 6842/100000
63/63 [=====] - 0s 4ms/step - loss: 6.3663e-04 -
val_loss: 5.4093e-04
Epoch 6843/100000
63/63 [=====] - 0s 3ms/step - loss: 4.8921e-04 -
val_loss: 6.8068e-04
Epoch 6844/100000
63/63 [=====] - 0s 3ms/step - loss: 4.7012e-04 -
val_loss: 5.6103e-04
Epoch 6845/100000
63/63 [=====] - 0s 3ms/step - loss: 3.8180e-04 -
val_loss: 5.3507e-04
Epoch 6846/100000
58/63 [=====>...] - ETA: 0s - loss: 6.1817e-04Epoch 06845:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 6.1263e-04 -
val_loss: 4.1722e-04
Epoch 6847/100000
63/63 [=====] - 0s 3ms/step - loss: 8.8902e-04 -
val_loss: 0.0011
Epoch 6848/100000
63/63 [=====] - 0s 3ms/step - loss: 6.8464e-04 -
val_loss: 5.8425e-04
Epoch 6849/100000
63/63 [=====] - 0s 3ms/step - loss: 8.7760e-04 -
val_loss: 5.5374e-04
Epoch 6850/100000
63/63 [=====] - 0s 3ms/step - loss: 6.0455e-04 -
val_loss: 5.2668e-04
Epoch 6851/100000
63/63 [=====] - 0s 4ms/step - loss: 5.0850e-04 -
val_loss: 5.9192e-04
Epoch 6852/100000
63/63 [=====] - 0s 4ms/step - loss: 5.5709e-04 -
val_loss: 8.7064e-04
Epoch 6853/100000
63/63 [=====] - 0s 4ms/step - loss: 6.1341e-04 -
val_loss: 8.6805e-04
Epoch 6854/100000

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49/63 [=====>...] - ETA: 0s - loss: 9.1237e-04Epoch 06853:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 8.4994e-04 -
val_loss: 4.3759e-04
Epoch 6855/100000
63/63 [=====] - 0s 3ms/step - loss: 4.9930e-04 -
val_loss: 6.8855e-04
Epoch 6856/100000
50/63 [=====>...] - ETA: 0s - loss: 5.8756e-04Epoch 06855:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.7396e-04 -
val_loss: 4.8161e-04
Epoch 6857/100000
63/63 [=====] - 0s 3ms/step - loss: 6.2664e-04 -
val_loss: 7.1257e-04
Epoch 6858/100000
60/63 [=====>..] - ETA: 0s - loss: 7.5647e-04Epoch 06857:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 7.9610e-04 -
val_loss: 4.0217e-04
Epoch 6859/100000
49/63 [=====>...] - ETA: 0s - loss: 6.6080e-04Epoch 06858:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 6.7489e-04 -
val_loss: 4.6454e-04
Epoch 6860/100000
58/63 [=====>...] - ETA: 0s - loss: 5.8317e-04Epoch 06859:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 6.1468e-04 -
val_loss: 4.9138e-04
Epoch 6861/100000
57/63 [=====>...] - ETA: 0s - loss: 4.6858e-04Epoch 06860:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.4693e-04 -
val_loss: 4.0128e-04
Epoch 6862/100000
63/63 [=====] - 0s 4ms/step - loss: 4.8780e-04 -
val_loss: 5.0041e-04
Epoch 6863/100000
61/63 [=====>..] - ETA: 0s - loss: 5.9043e-04Epoch 06862:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.8204e-04 -
val_loss: 4.4679e-04
Epoch 6864/100000
53/63 [=====>...] - ETA: 0s - loss: 4.7809e-04Epoch 06863:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.8398e-04 -
val_loss: 4.1951e-04

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Epoch 6865/100000  
58/63 [=====>...] - ETA: 0s - loss: 5.3734e-04Epoch 06864:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 5.1945e-04 -  
val\_loss: 3.7986e-04  
Epoch 6866/100000  
51/63 [=====>...] - ETA: 0s - loss: 5.6342e-04Epoch 06865:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 5.2959e-04 -  
val\_loss: 3.4913e-04  
Epoch 6867/100000  
63/63 [=====] - 0s 4ms/step - loss: 6.7413e-04 -  
val\_loss: 7.0154e-04  
Epoch 6868/100000  
63/63 [=====] - 0s 4ms/step - loss: 5.3500e-04 -  
val\_loss: 6.6757e-04  
Epoch 6869/100000  
49/63 [=====>...] - ETA: 0s - loss: 4.0335e-04Epoch 06868:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 4.2537e-04 -  
val\_loss: 4.7954e-04  
Epoch 6870/100000  
55/63 [=====>...] - ETA: 0s - loss: 4.1808e-04Epoch 06869:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 4.5267e-04 -  
val\_loss: 4.7627e-04  
Epoch 6871/100000  
54/63 [=====>...] - ETA: 0s - loss: 5.8079e-04Epoch 06870:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 5.7477e-04 -  
val\_loss: 3.8490e-04  
Epoch 6872/100000  
63/63 [=====] - 0s 3ms/step - loss: 6.3929e-04 -  
val\_loss: 5.4963e-04  
Epoch 6873/100000  
63/63 [=====] - 0s 4ms/step - loss: 5.8574e-04 -  
val\_loss: 5.8335e-04  
Epoch 6874/100000  
63/63 [=====] - 0s 4ms/step - loss: 5.2923e-04 -  
val\_loss: 6.0224e-04  
Epoch 6875/100000  
63/63 [=====] - 0s 3ms/step - loss: 5.6038e-04 -  
val\_loss: 5.2398e-04  
Epoch 6876/100000  
63/63 [=====] - 0s 4ms/step - loss: 3.9968e-04 -  
val\_loss: 5.0539e-04  
Epoch 6877/100000  
63/63 [=====] - 0s 4ms/step - loss: 3.6206e-04 -

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val_loss: 6.9067e-04
Epoch 6878/100000
53/63 [=====>...] - ETA: 0s - loss: 4.5722e-04Epoch 06877:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.3939e-04 -
val_loss: 4.7856e-04
Epoch 6879/100000
63/63 [=====] - 0s 4ms/step - loss: 7.2611e-04 -
val_loss: 0.0011
Epoch 6880/100000
50/63 [=====>...] - ETA: 0s - loss: 6.0321e-04Epoch 06879:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.9181e-04 -
val_loss: 4.7652e-04
Epoch 6881/100000
47/63 [=====>...] - ETA: 0s - loss: 5.5788e-04Epoch 06880:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.6461e-04 -
val_loss: 4.9898e-04
Epoch 6882/100000
63/63 [=====] - 0s 4ms/step - loss: 6.2723e-04 -
val_loss: 5.8726e-04
Epoch 6883/100000
63/63 [=====] - ETA: 0s - loss: 5.6070e-04Epoch 06882:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.6070e-04 -
val_loss: 4.8470e-04
Epoch 6884/100000
63/63 [=====] - 0s 4ms/step - loss: 5.0554e-04 -
val_loss: 6.0720e-04
Epoch 6885/100000
63/63 [=====] - 0s 4ms/step - loss: 4.3458e-04 -
val_loss: 5.0204e-04
Epoch 6886/100000
63/63 [=====] - 0s 4ms/step - loss: 5.3657e-04 -
val_loss: 6.1684e-04
Epoch 6887/100000
63/63 [=====] - 0s 4ms/step - loss: 4.9335e-04 -
val_loss: 9.5603e-04
Epoch 6888/100000
63/63 [=====] - 0s 4ms/step - loss: 8.6911e-04 -
val_loss: 6.9888e-04
Epoch 6889/100000
63/63 [=====] - 0s 4ms/step - loss: 6.3826e-04 -
val_loss: 8.7279e-04
Epoch 6890/100000
63/63 [=====] - 0s 4ms/step - loss: 5.4055e-04 -
val_loss: 7.1696e-04

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Epoch 6891/100000
63/63 [=====] - 0s 4ms/step - loss: 4.0010e-04 -
val_loss: 5.3414e-04
Epoch 6892/100000
63/63 [=====] - 0s 4ms/step - loss: 6.4281e-04 -
val_loss: 6.8482e-04
Epoch 6893/100000
63/63 [=====] - 0s 4ms/step - loss: 7.2454e-04 -
val_loss: 5.5979e-04
Epoch 6894/100000
63/63 [=====] - 0s 3ms/step - loss: 7.6826e-04 -
val_loss: 9.1795e-04
Epoch 6895/100000
63/63 [=====] - 0s 4ms/step - loss: 0.0012 - val_loss:
8.8798e-04
Epoch 6896/100000
63/63 [=====] - 0s 4ms/step - loss: 7.4050e-04 -
val_loss: 7.8453e-04
Epoch 6897/100000
63/63 [=====] - 0s 4ms/step - loss: 7.6787e-04 -
val_loss: 5.4096e-04
Epoch 6898/100000
63/63 [=====] - 0s 3ms/step - loss: 7.1148e-04 -
val_loss: 6.1383e-04
Epoch 6899/100000
59/63 [=====>..] - ETA: 0s - loss: 7.3219e-04Epoch 06898:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 7.8252e-04 -
val_loss: 4.8259e-04
Epoch 6900/100000
63/63 [=====] - 0s 4ms/step - loss: 8.7538e-04 -
val_loss: 0.0012
Epoch 6901/100000
63/63 [=====] - 0s 4ms/step - loss: 6.3515e-04 -
val_loss: 0.0010
Epoch 6902/100000
63/63 [=====] - 0s 3ms/step - loss: 7.0926e-04 -
val_loss: 9.3315e-04
Epoch 6903/100000
63/63 [=====] - 0s 3ms/step - loss: 4.6086e-04 -
val_loss: 0.0011
Epoch 6904/100000
63/63 [=====] - 0s 3ms/step - loss: 4.9446e-04 -
val_loss: 6.6870e-04
Epoch 6905/100000
63/63 [=====] - 0s 4ms/step - loss: 5.4859e-04 -
val_loss: 5.5099e-04
Epoch 6906/100000

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63/63 [=====] - 0s 3ms/step - loss: 5.2721e-04 -
val_loss: 7.7522e-04
Epoch 6907/100000
63/63 [=====] - 0s 4ms/step - loss: 5.6019e-04 -
val_loss: 5.6859e-04
Epoch 6908/100000
63/63 [=====] - 0s 4ms/step - loss: 6.5808e-04 -
val_loss: 7.7187e-04
Epoch 6909/100000
63/63 [=====] - 0s 3ms/step - loss: 8.1240e-04 -
val_loss: 9.5331e-04
Epoch 6910/100000
63/63 [=====] - 0s 4ms/step - loss: 9.5864e-04 -
val_loss: 0.0011
Epoch 6911/100000
63/63 [=====] - 0s 4ms/step - loss: 9.6531e-04 -
val_loss: 7.6026e-04
Epoch 6912/100000
63/63 [=====] - 0s 4ms/step - loss: 7.2455e-04 -
val_loss: 8.3533e-04
Epoch 6913/100000
63/63 [=====] - 0s 4ms/step - loss: 7.1214e-04 -
val_loss: 5.0938e-04
Epoch 6914/100000
63/63 [=====] - 0s 3ms/step - loss: 8.4559e-04 -
val_loss: 8.2384e-04
Epoch 6915/100000
63/63 [=====] - 0s 4ms/step - loss: 5.9336e-04 -
val_loss: 7.8620e-04
Epoch 6916/100000
63/63 [=====] - 0s 4ms/step - loss: 6.7657e-04 -
val_loss: 5.3995e-04
Epoch 6917/100000
60/63 [=====>..] - ETA: 0s - loss: 5.3496e-04Epoch 06916:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.3936e-04 -
val_loss: 3.6632e-04
Epoch 6918/100000
62/63 [=====>.] - ETA: 0s - loss: 5.8702e-04Epoch 06917:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 5.8511e-04 -
val_loss: 4.7261e-04
Epoch 6919/100000
63/63 [=====] - 0s 4ms/step - loss: 5.2470e-04 -
val_loss: 6.6390e-04
Epoch 6920/100000
63/63 [=====] - 0s 4ms/step - loss: 4.9005e-04 -
val_loss: 5.9206e-04

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Epoch 6921/100000
63/63 [=====] - 0s 4ms/step - loss: 3.9267e-04 -
val_loss: 5.8414e-04
Epoch 6922/100000
63/63 [=====] - 0s 4ms/step - loss: 5.8898e-04 -
val_loss: 6.7847e-04
Epoch 6923/100000
63/63 [=====] - 0s 3ms/step - loss: 6.4087e-04 -
val_loss: 7.4223e-04
Epoch 6924/100000
63/63 [=====] - 0s 3ms/step - loss: 8.4998e-04 -
val_loss: 9.8583e-04
Epoch 6925/100000
63/63 [=====] - 0s 4ms/step - loss: 0.0016 - val_loss:
9.4759e-04
Epoch 6926/100000
63/63 [=====] - 0s 3ms/step - loss: 7.1738e-04 -
val_loss: 7.6013e-04
Epoch 6927/100000
63/63 [=====] - 0s 4ms/step - loss: 9.7480e-04 -
val_loss: 0.0011
Epoch 6928/100000
63/63 [=====] - 0s 4ms/step - loss: 8.4182e-04 -
val_loss: 6.8116e-04
Epoch 6929/100000
63/63 [=====] - 0s 4ms/step - loss: 7.3385e-04 -
val_loss: 6.3191e-04
Epoch 6930/100000
63/63 [=====] - 0s 4ms/step - loss: 7.4882e-04 -
val_loss: 6.6670e-04
Epoch 6931/100000
63/63 [=====] - 0s 3ms/step - loss: 9.0105e-04 -
val_loss: 7.0721e-04
Epoch 6932/100000
63/63 [=====] - 0s 4ms/step - loss: 0.0010 - val_loss:
6.2189e-04
Epoch 6933/100000
63/63 [=====] - 0s 3ms/step - loss: 8.8391e-04 -
val_loss: 0.0012
Epoch 6934/100000
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val_loss:
8.5125e-04
Epoch 6935/100000
63/63 [=====] - 0s 4ms/step - loss: 7.5752e-04 -
val_loss: 5.8121e-04
Epoch 6936/100000
55/63 [=====>...] - ETA: 0s - loss: 5.8930e-04Epoch 06935:
early stopping THR

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63/63 [=====] - 0s 4ms/step - loss: 6.1472e-04 -
val_loss: 4.3477e-04
Epoch 6937/100000
63/63 [=====] - 0s 4ms/step - loss: 6.5453e-04 -
val_loss: 6.2161e-04
Epoch 6938/100000
50/63 [=====>...] - ETA: 0s - loss: 5.4728e-04Epoch 06937:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 6.1677e-04 -
val_loss: 4.4364e-04
Epoch 6939/100000
63/63 [=====] - 0s 4ms/step - loss: 5.1826e-04 -
val_loss: 5.8661e-04
Epoch 6940/100000
63/63 [=====] - 0s 4ms/step - loss: 6.1524e-04 -
val_loss: 5.1792e-04
Epoch 6941/100000
63/63 [=====] - 0s 4ms/step - loss: 6.3927e-04 -
val_loss: 5.3107e-04
Epoch 6942/100000
63/63 [=====] - 0s 4ms/step - loss: 6.5313e-04 -
val_loss: 5.0192e-04
Epoch 6943/100000
63/63 [=====] - 0s 4ms/step - loss: 8.6026e-04 -
val_loss: 0.0048
Epoch 6944/100000
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val_loss:
8.4820e-04
Epoch 6945/100000
63/63 [=====] - 0s 4ms/step - loss: 8.6720e-04 -
val_loss: 0.0011
Epoch 6946/100000
54/63 [=====>...] - ETA: 0s - loss: 6.8467e-04Epoch 06945:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 6.7714e-04 -
val_loss: 3.3898e-04
Epoch 6947/100000
56/63 [=====>...] - ETA: 0s - loss: 6.2307e-04Epoch 06946:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 6.0392e-04 -
val_loss: 3.4049e-04
Epoch 6948/100000
48/63 [=====>...] - ETA: 0s - loss: 5.5048e-04Epoch 06947:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.3206e-04 -
val_loss: 4.3308e-04
Epoch 6949/100000
53/63 [=====>...] - ETA: 0s - loss: 6.1016e-04Epoch 06948:

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early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 6.4244e-04 -
val_loss: 4.9866e-04
Epoch 6950/100000
63/63 [=====] - 0s 3ms/step - loss: 5.6856e-04 -
val_loss: 0.0010
Epoch 6951/100000
63/63 [=====] - 0s 3ms/step - loss: 6.8564e-04 -
val_loss: 5.5425e-04
Epoch 6952/100000
63/63 [=====] - 0s 4ms/step - loss: 4.8751e-04 -
val_loss: 5.6145e-04
Epoch 6953/100000
57/63 [=====>...] - ETA: 0s - loss: 4.8555e-04Epoch 06952:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 4.8023e-04 -
val_loss: 4.2085e-04
Epoch 6954/100000
63/63 [=====] - 0s 4ms/step - loss: 4.6148e-04 -
val_loss: 5.9749e-04
Epoch 6955/100000
63/63 [=====] - 0s 4ms/step - loss: 5.6194e-04 -
val_loss: 5.1464e-04
Epoch 6956/100000
63/63 [=====] - 0s 4ms/step - loss: 5.2202e-04 -
val_loss: 6.2917e-04
Epoch 6957/100000
63/63 [=====] - 0s 4ms/step - loss: 5.5939e-04 -
val_loss: 5.9679e-04
Epoch 6958/100000
59/63 [=====>...] - ETA: 0s - loss: 6.2743e-04Epoch 06957:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 6.1224e-04 -
val_loss: 4.6569e-04
Epoch 6959/100000
63/63 [=====] - 0s 4ms/step - loss: 6.9417e-04 -
val_loss: 5.8901e-04
Epoch 6960/100000
63/63 [=====] - 0s 4ms/step - loss: 6.7792e-04 -
val_loss: 5.7303e-04
Epoch 6961/100000
63/63 [=====] - 0s 4ms/step - loss: 8.5499e-04 -
val_loss: 0.0010
Epoch 6962/100000
63/63 [=====] - 0s 4ms/step - loss: 9.1918e-04 -
val_loss: 0.0016
Epoch 6963/100000
63/63 [=====] - 0s 4ms/step - loss: 0.0010 - val_loss:

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6.0237e-04  
 Epoch 6964/100000  
 50/63 [=====>...] - ETA: 0s - loss: 7.3270e-04Epoch 06963:  
 early stopping THR  
 63/63 [=====] - 0s 4ms/step - loss: 6.8426e-04 -  
 val\_loss: 4.3593e-04  
 Epoch 6965/100000  
 63/63 [=====] - 0s 4ms/step - loss: 8.0806e-04 -  
 val\_loss: 6.8008e-04  
 Epoch 6966/100000  
 59/63 [=====>..] - ETA: 0s - loss: 5.8298e-04Epoch 06965:  
 early stopping THR  
 63/63 [=====] - 0s 4ms/step - loss: 5.9187e-04 -  
 val\_loss: 4.6460e-04  
 Epoch 6967/100000  
 63/63 [=====] - 0s 4ms/step - loss: 7.2463e-04 -  
 val\_loss: 5.6270e-04  
 Epoch 6968/100000  
 63/63 [=====] - 0s 4ms/step - loss: 8.8336e-04 -  
 val\_loss: 6.1584e-04  
 Epoch 6969/100000  
 63/63 [=====] - 0s 4ms/step - loss: 6.6905e-04 -  
 val\_loss: 6.1804e-04  
 Epoch 6970/100000  
 63/63 [=====] - 0s 3ms/step - loss: 6.6730e-04 -  
 val\_loss: 7.8401e-04  
 Epoch 6971/100000  
 63/63 [=====] - 0s 4ms/step - loss: 7.2168e-04 -  
 val\_loss: 6.3864e-04  
 Epoch 6972/100000  
 63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss:  
 8.0365e-04  
 Epoch 6973/100000  
 63/63 [=====] - 0s 3ms/step - loss: 9.4207e-04 -  
 val\_loss: 7.1466e-04  
 Epoch 6974/100000  
 63/63 [=====] - 0s 3ms/step - loss: 9.5389e-04 -  
 val\_loss: 0.0011  
 Epoch 6975/100000  
 63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss:  
 5.7103e-04  
 Epoch 6976/100000  
 63/63 [=====] - 0s 4ms/step - loss: 9.2837e-04 -  
 val\_loss: 9.8201e-04  
 Epoch 6977/100000  
 63/63 [=====] - 0s 4ms/step - loss: 7.7799e-04 -  
 val\_loss: 5.6636e-04  
 Epoch 6978/100000

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63/63 [=====] - 0s 4ms/step - loss: 5.4575e-04 -
val_loss: 5.4709e-04
Epoch 6979/100000
63/63 [=====] - 0s 4ms/step - loss: 7.3075e-04 -
val_loss: 7.2865e-04
Epoch 6980/100000
63/63 [=====] - 0s 3ms/step - loss: 6.6919e-04 -
val_loss: 8.4247e-04
Epoch 6981/100000
63/63 [=====] - 0s 4ms/step - loss: 9.5983e-04 -
val_loss: 6.9858e-04
Epoch 6982/100000
63/63 [=====] - 0s 4ms/step - loss: 5.4908e-04 -
val_loss: 5.8056e-04
Epoch 6983/100000
63/63 [=====] - 0s 3ms/step - loss: 5.9097e-04 -
val_loss: 6.9450e-04
Epoch 6984/100000
63/63 [=====] - 0s 3ms/step - loss: 6.2673e-04 -
val_loss: 7.6405e-04
Epoch 6985/100000
63/63 [=====] - 0s 4ms/step - loss: 7.9852e-04 -
val_loss: 7.8962e-04
Epoch 6986/100000
63/63 [=====] - 0s 4ms/step - loss: 8.4495e-04 -
val_loss: 6.4486e-04
Epoch 6987/100000
63/63 [=====] - 0s 4ms/step - loss: 7.1920e-04 -
val_loss: 6.9776e-04
Epoch 6988/100000
63/63 [=====] - 0s 4ms/step - loss: 7.7825e-04 -
val_loss: 9.8170e-04
Epoch 6989/100000
63/63 [=====] - 0s 4ms/step - loss: 7.7637e-04 -
val_loss: 7.5996e-04
Epoch 6990/100000
57/63 [=====>...] - ETA: 0s - loss: 7.6570e-04Epoch 06989:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 7.7768e-04 -
val_loss: 4.1844e-04
Epoch 6991/100000
63/63 [=====] - 0s 3ms/step - loss: 8.4052e-04 -
val_loss: 5.6941e-04
Epoch 6992/100000
63/63 [=====] - 0s 4ms/step - loss: 7.8917e-04 -
val_loss: 5.8902e-04
Epoch 6993/100000
63/63 [=====] - 0s 3ms/step - loss: 7.1696e-04 -

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val_loss: 5.4394e-04
Epoch 6994/100000
63/63 [=====] - 0s 4ms/step - loss: 8.1900e-04 -
val_loss: 9.1629e-04
Epoch 6995/100000
63/63 [=====] - 0s 3ms/step - loss: 8.1790e-04 -
val_loss: 0.0010
Epoch 6996/100000
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val_loss:
8.2176e-04
Epoch 6997/100000
63/63 [=====] - 0s 4ms/step - loss: 8.1532e-04 -
val_loss: 7.8379e-04
Epoch 6998/100000
63/63 [=====] - 0s 4ms/step - loss: 7.6407e-04 -
val_loss: 6.2567e-04
Epoch 6999/100000
63/63 [=====] - 0s 4ms/step - loss: 7.7114e-04 -
val_loss: 9.8006e-04
Epoch 7000/100000
55/63 [=====>...] - ETA: 0s - loss: 6.7602e-04Epoch 06999:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 6.4340e-04 -
val_loss: 4.7232e-04
Epoch 7001/100000
63/63 [=====] - 0s 4ms/step - loss: 6.3807e-04 -
val_loss: 5.7243e-04
Epoch 7002/100000
63/63 [=====] - 0s 4ms/step - loss: 8.1563e-04 -
val_loss: 7.1866e-04
Epoch 7003/100000
63/63 [=====] - 0s 4ms/step - loss: 7.2107e-04 -
val_loss: 7.1946e-04
Epoch 7004/100000
57/63 [=====>...] - ETA: 0s - loss: 7.0618e-04Epoch 07003:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 7.2421e-04 -
val_loss: 4.3350e-04
Epoch 7005/100000
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val_loss:
5.4306e-04
Epoch 7006/100000
63/63 [=====] - 0s 4ms/step - loss: 6.0277e-04 -
val_loss: 6.9748e-04
Epoch 7007/100000
63/63 [=====] - 0s 3ms/step - loss: 5.8124e-04 -
val_loss: 5.8977e-04
Epoch 7008/100000

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52/63 [=====>...] - ETA: 0s - loss: 6.1819e-04Epoch 07007:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.7526e-04 -
val_loss: 3.0334e-04
Epoch 7009/100000
56/63 [=====>...] - ETA: 0s - loss: 6.5663e-04Epoch 07008:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 6.2721e-04 -
val_loss: 3.0317e-04
Epoch 7010/100000
58/63 [=====>...] - ETA: 0s - loss: 5.8319e-04Epoch 07009:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 5.6148e-04 -
val_loss: 3.4768e-04
Epoch 7011/100000
56/63 [=====>...] - ETA: 0s - loss: 6.2445e-04Epoch 07010:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 6.0242e-04 -
val_loss: 4.6623e-04
Epoch 7012/100000
49/63 [=====>...] - ETA: 0s - loss: 5.8638e-04Epoch 07011:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 6.1541e-04 -
val_loss: 3.3142e-04
Epoch 7013/100000
63/63 [=====] - 0s 4ms/step - loss: 7.4692e-04 -
val_loss: 0.0010
Epoch 7014/100000
63/63 [=====] - 0s 4ms/step - loss: 0.0010 - val_loss:
7.2573e-04
Epoch 7015/100000
63/63 [=====] - 0s 4ms/step - loss: 4.8838e-04 -
val_loss: 6.7548e-04
Epoch 7016/100000
63/63 [=====] - 0s 4ms/step - loss: 6.5062e-04 -
val_loss: 8.5536e-04
Epoch 7017/100000
59/63 [=====>..] - ETA: 0s - loss: 5.3971e-04Epoch 07016:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.4144e-04 -
val_loss: 4.8550e-04
Epoch 7018/100000
63/63 [=====] - 0s 4ms/step - loss: 6.4756e-04 -
val_loss: 7.7670e-04
Epoch 7019/100000
63/63 [=====] - 0s 4ms/step - loss: 4.0860e-04 -
val_loss: 6.0748e-04
Epoch 7020/100000

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63/63 [=====] - 0s 3ms/step - loss: 4.6765e-04 -
val_loss: 9.4652e-04
Epoch 7021/100000
48/63 [=====>...] - ETA: 0s - loss: 6.4151e-04Epoch 07020:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.9862e-04 -
val_loss: 3.1066e-04
Epoch 7022/100000
63/63 [=====] - 0s 4ms/step - loss: 6.8925e-04 -
val_loss: 6.4471e-04
Epoch 7023/100000
63/63 [=====] - 0s 4ms/step - loss: 7.5602e-04 -
val_loss: 9.8525e-04
Epoch 7024/100000
63/63 [=====] - 0s 4ms/step - loss: 6.4138e-04 -
val_loss: 6.7593e-04
Epoch 7025/100000
49/63 [=====>...] - ETA: 0s - loss: 8.1249e-04Epoch 07024:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 8.5759e-04 -
val_loss: 4.7414e-04
Epoch 7026/100000
63/63 [=====] - 0s 4ms/step - loss: 7.6633e-04 -
val_loss: 7.5548e-04
Epoch 7027/100000
63/63 [=====] - 0s 4ms/step - loss: 7.3123e-04 -
val_loss: 5.8343e-04
Epoch 7028/100000
63/63 [=====] - 0s 4ms/step - loss: 7.2402e-04 -
val_loss: 5.1289e-04
Epoch 7029/100000
53/63 [=====>...] - ETA: 0s - loss: 6.3667e-04Epoch 07028:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 6.0077e-04 -
val_loss: 3.0246e-04
Epoch 7030/100000
63/63 [=====] - ETA: 0s - loss: 5.2503e-04Epoch 07029:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.2503e-04 -
val_loss: 4.4427e-04
Epoch 7031/100000
63/63 [=====] - 0s 3ms/step - loss: 5.1557e-04 -
val_loss: 7.4502e-04
Epoch 7032/100000
63/63 [=====] - ETA: 0s - loss: 6.5075e-04Epoch 07031:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 6.5075e-04 -
val_loss: 3.8326e-04

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Epoch 7033/100000  
63/63 [=====] - 0s 4ms/step - loss: 6.1048e-04 -  
val\_loss: 6.1461e-04  
Epoch 7034/100000  
49/63 [=====>...] - ETA: 0s - loss: 4.7457e-04Epoch 07033:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 4.9152e-04 -  
val\_loss: 3.9599e-04  
Epoch 7035/100000  
55/63 [=====>...] - ETA: 0s - loss: 6.5507e-04Epoch 07034:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 6.0998e-04 -  
val\_loss: 3.3774e-04  
Epoch 7036/100000  
63/63 [=====] - 0s 4ms/step - loss: 6.8049e-04 -  
val\_loss: 8.7913e-04  
Epoch 7037/100000  
63/63 [=====] - 0s 3ms/step - loss: 4.8347e-04 -  
val\_loss: 5.5662e-04  
Epoch 7038/100000  
47/63 [=====>...] - ETA: 0s - loss: 5.8410e-04Epoch 07037:  
early stopping THR  
63/63 [=====] - 0s 3ms/step - loss: 5.5506e-04 -  
val\_loss: 3.6978e-04  
Epoch 7039/100000  
63/63 [=====] - 0s 3ms/step - loss: 7.0600e-04 -  
val\_loss: 0.0013  
Epoch 7040/100000  
63/63 [=====] - 0s 3ms/step - loss: 7.7778e-04 -  
val\_loss: 6.9821e-04  
Epoch 7041/100000  
63/63 [=====] - 0s 3ms/step - loss: 5.1053e-04 -  
val\_loss: 7.0044e-04  
Epoch 7042/100000  
63/63 [=====] - 0s 3ms/step - loss: 7.5299e-04 -  
val\_loss: 6.0296e-04  
Epoch 7043/100000  
63/63 [=====] - 0s 4ms/step - loss: 5.3739e-04 -  
val\_loss: 5.4090e-04  
Epoch 7044/100000  
63/63 [=====] - 0s 3ms/step - loss: 5.4986e-04 -  
val\_loss: 9.6419e-04  
Epoch 7045/100000  
63/63 [=====] - 0s 4ms/step - loss: 4.5433e-04 -  
val\_loss: 5.6992e-04  
Epoch 7046/100000  
63/63 [=====] - 0s 3ms/step - loss: 5.0961e-04 -  
val\_loss: 5.4657e-04

Epoch 7047/100000  
52/63 [=====>...] - ETA: 0s - loss: 5.9514e-04Epoch 07046:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 5.7735e-04 -  
val\_loss: 4.1725e-04  
Epoch 7048/100000  
58/63 [=====>...] - ETA: 0s - loss: 5.6422e-04Epoch 07047:  
early stopping THR  
63/63 [=====] - 0s 3ms/step - loss: 5.6883e-04 -  
val\_loss: 4.7111e-04  
Epoch 7049/100000  
55/63 [=====>...] - ETA: 0s - loss: 9.9666e-04Epoch 07048:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 9.7643e-04 -  
val\_loss: 4.6979e-04  
Epoch 7050/100000  
63/63 [=====] - 0s 3ms/step - loss: 7.4274e-04 -  
val\_loss: 8.6799e-04  
Epoch 7051/100000  
59/63 [=====>..] - ETA: 0s - loss: 5.9388e-04Epoch 07050:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 5.7398e-04 -  
val\_loss: 4.7007e-04  
Epoch 7052/100000  
63/63 [=====] - 0s 4ms/step - loss: 6.0767e-04 -  
val\_loss: 5.3147e-04  
Epoch 7053/100000  
55/63 [=====>...] - ETA: 0s - loss: 6.1040e-04Epoch 07052:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 6.1223e-04 -  
val\_loss: 4.2587e-04  
Epoch 7054/100000  
58/63 [=====>...] - ETA: 0s - loss: 8.0323e-04Epoch 07053:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 7.7431e-04 -  
val\_loss: 3.9159e-04  
Epoch 7055/100000  
63/63 [=====] - 0s 4ms/step - loss: 4.9514e-04 -  
val\_loss: 8.4963e-04  
Epoch 7056/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.3735e-04 -  
val\_loss: 7.6656e-04  
Epoch 7057/100000  
63/63 [=====] - 0s 4ms/step - loss: 6.2796e-04 -  
val\_loss: 5.0907e-04  
Epoch 7058/100000  
63/63 [=====] - 0s 3ms/step - loss: 7.8562e-04 -  
val\_loss: 7.9580e-04

Epoch 7059/100000  
63/63 [=====] - 0s 4ms/step - loss: 8.4447e-04 -  
val\_loss: 5.1885e-04  
Epoch 7060/100000  
55/63 [=====>...] - ETA: 0s - loss: 7.4506e-04Epoch 07059:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 7.0745e-04 -  
val\_loss: 3.4565e-04  
Epoch 7061/100000  
51/63 [=====>...] - ETA: 0s - loss: 7.8283e-04Epoch 07060:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 7.3754e-04 -  
val\_loss: 4.4140e-04  
Epoch 7062/100000  
63/63 [=====] - 0s 4ms/step - loss: 5.5826e-04 -  
val\_loss: 6.3179e-04  
Epoch 7063/100000  
51/63 [=====>...] - ETA: 0s - loss: 4.9152e-04Epoch 07062:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 4.9864e-04 -  
val\_loss: 3.6178e-04  
Epoch 7064/100000  
63/63 [=====] - 0s 6ms/step - loss: 5.1691e-04 -  
val\_loss: 5.2899e-04  
Epoch 7065/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.5802e-04 -  
val\_loss: 5.3610e-04  
Epoch 7066/100000  
51/63 [=====>...] - ETA: 0s - loss: 7.5252e-04Epoch 07065:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 6.9830e-04 -  
val\_loss: 4.7737e-04  
Epoch 7067/100000  
58/63 [=====>...] - ETA: 0s - loss: 8.8637e-04Epoch 07066:  
early stopping THR  
63/63 [=====] - 0s 3ms/step - loss: 8.4988e-04 -  
val\_loss: 3.8516e-04  
Epoch 7068/100000  
63/63 [=====] - 0s 4ms/step - loss: 7.6770e-04 -  
val\_loss: 5.1686e-04  
Epoch 7069/100000  
63/63 [=====] - 0s 4ms/step - loss: 9.0909e-04 -  
val\_loss: 5.4881e-04  
Epoch 7070/100000  
63/63 [=====] - 0s 4ms/step - loss: 6.7290e-04 -  
val\_loss: 5.8479e-04  
Epoch 7071/100000  
63/63 [=====] - 0s 4ms/step - loss: 6.3058e-04 -

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val_loss: 5.3764e-04
Epoch 7072/100000
63/63 [=====] - 0s 4ms/step - loss: 8.1194e-04 -
val_loss: 8.9572e-04
Epoch 7073/100000
55/63 [=====>...] - ETA: 0s - loss: 7.3795e-04Epoch 07072:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 7.1525e-04 -
val_loss: 4.9933e-04
Epoch 7074/100000
63/63 [=====] - 0s 4ms/step - loss: 5.7638e-04 -
val_loss: 6.1438e-04
Epoch 7075/100000
63/63 [=====] - 0s 4ms/step - loss: 7.0550e-04 -
val_loss: 7.4235e-04
Epoch 7076/100000
58/63 [=====>...] - ETA: 0s - loss: 5.6011e-04Epoch 07075:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.3844e-04 -
val_loss: 4.3211e-04
Epoch 7077/100000
57/63 [=====>...] - ETA: 0s - loss: 7.0659e-04Epoch 07076:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 6.8048e-04 -
val_loss: 4.8839e-04
Epoch 7078/100000
63/63 [=====] - 0s 4ms/step - loss: 6.7366e-04 -
val_loss: 6.1974e-04
Epoch 7079/100000
60/63 [=====>..] - ETA: 0s - loss: 7.7522e-04Epoch 07078:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 7.5872e-04 -
val_loss: 4.3464e-04
Epoch 7080/100000
63/63 [=====] - 0s 4ms/step - loss: 7.4903e-04 -
val_loss: 7.8996e-04
Epoch 7081/100000
63/63 [=====] - 0s 4ms/step - loss: 6.7625e-04 -
val_loss: 6.2083e-04
Epoch 7082/100000
63/63 [=====] - 0s 4ms/step - loss: 6.2739e-04 -
val_loss: 5.6614e-04
Epoch 7083/100000
63/63 [=====] - 0s 4ms/step - loss: 6.0633e-04 -
val_loss: 7.5124e-04
Epoch 7084/100000
63/63 [=====] - 0s 4ms/step - loss: 6.7080e-04 -
val_loss: 7.3737e-04

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Epoch 7085/100000  
54/63 [=====>...] - ETA: 0s - loss: 9.0006e-04Epoch 07084:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 8.4229e-04 -  
val\_loss: 4.1129e-04  
Epoch 7086/100000  
63/63 [=====] - 0s 4ms/step - loss: 6.9254e-04 -  
val\_loss: 7.8005e-04  
Epoch 7087/100000  
59/63 [=====>..] - ETA: 0s - loss: 9.0387e-04Epoch 07086:  
early stopping THR  
63/63 [=====] - 0s 3ms/step - loss: 8.9953e-04 -  
val\_loss: 4.3735e-04  
Epoch 7088/100000  
63/63 [=====] - 0s 3ms/step - loss: 6.9512e-04 -  
val\_loss: 5.8344e-04  
Epoch 7089/100000  
63/63 [=====] - 0s 3ms/step - loss: 5.8353e-04 -  
val\_loss: 6.6928e-04  
Epoch 7090/100000  
63/63 [=====] - 0s 4ms/step - loss: 5.9687e-04 -  
val\_loss: 6.5545e-04  
Epoch 7091/100000  
51/63 [=====>...] - ETA: 0s - loss: 7.3810e-04Epoch 07090:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 6.8498e-04 -  
val\_loss: 4.3181e-04  
Epoch 7092/100000  
46/63 [=====>...] - ETA: 0s - loss: 5.2596e-04Epoch 07091:  
early stopping THR  
63/63 [=====] - 0s 3ms/step - loss: 4.9124e-04 -  
val\_loss: 4.0322e-04  
Epoch 7093/100000  
63/63 [=====] - 0s 3ms/step - loss: 4.9369e-04 -  
val\_loss: 5.0535e-04  
Epoch 7094/100000  
63/63 [=====] - 0s 4ms/step - loss: 6.1542e-04 -  
val\_loss: 6.0664e-04  
Epoch 7095/100000  
60/63 [=====>..] - ETA: 0s - loss: 6.7799e-04Epoch 07094:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 6.7505e-04 -  
val\_loss: 4.6639e-04  
Epoch 7096/100000  
63/63 [=====] - 0s 3ms/step - loss: 7.4046e-04 -  
val\_loss: 6.2618e-04  
Epoch 7097/100000  
61/63 [=====>..] - ETA: 0s - loss: 5.7615e-04Epoch 07096:

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early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 5.7006e-04 -
val_loss: 4.5798e-04
Epoch 7098/100000
50/63 [=====>...] - ETA: 0s - loss: 7.7309e-04Epoch 07097:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 7.2689e-04 -
val_loss: 3.9869e-04
Epoch 7099/100000
63/63 [=====] - 0s 4ms/step - loss: 8.4654e-04 -
val_loss: 6.4477e-04
Epoch 7100/100000
63/63 [=====] - 0s 4ms/step - loss: 7.9890e-04 -
val_loss: 6.4068e-04
Epoch 7101/100000
63/63 [=====] - 0s 4ms/step - loss: 6.5666e-04 -
val_loss: 5.7946e-04
Epoch 7102/100000
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val_loss:
6.4272e-04
Epoch 7103/100000
49/63 [=====>...] - ETA: 0s - loss: 6.8422e-04Epoch 07102:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 6.5791e-04 -
val_loss: 3.3887e-04
Epoch 7104/100000
63/63 [=====] - 0s 4ms/step - loss: 5.9324e-04 -
val_loss: 7.4572e-04
Epoch 7105/100000
63/63 [=====] - 0s 3ms/step - loss: 4.7004e-04 -
val_loss: 6.2324e-04
Epoch 7106/100000
63/63 [=====] - 0s 4ms/step - loss: 4.5695e-04 -
val_loss: 7.3018e-04
Epoch 7107/100000
63/63 [=====] - 0s 3ms/step - loss: 5.5601e-04 -
val_loss: 5.1250e-04
Epoch 7108/100000
59/63 [=====>...] - ETA: 0s - loss: 5.5133e-04Epoch 07107:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 5.4019e-04 -
val_loss: 2.5189e-04
Epoch 7109/100000
55/63 [=====>...] - ETA: 0s - loss: 8.0295e-04Epoch 07108:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 7.7094e-04 -
val_loss: 4.1909e-04
Epoch 7110/100000

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63/63 [=====] - 0s 4ms/step - loss: 6.1749e-04 -
val_loss: 0.0012
Epoch 7111/100000
63/63 [=====] - 0s 3ms/step - loss: 9.3233e-04 -
val_loss: 7.8886e-04
Epoch 7112/100000
63/63 [=====] - 0s 4ms/step - loss: 6.8321e-04 -
val_loss: 7.5180e-04
Epoch 7113/100000
63/63 [=====] - 0s 4ms/step - loss: 5.2332e-04 -
val_loss: 5.5713e-04
Epoch 7114/100000
63/63 [=====] - 0s 3ms/step - loss: 7.1900e-04 -
val_loss: 7.1364e-04
Epoch 7115/100000
63/63 [=====] - 0s 4ms/step - loss: 7.4232e-04 -
val_loss: 6.7779e-04
Epoch 7116/100000
63/63 [=====] - 0s 4ms/step - loss: 9.0900e-04 -
val_loss: 0.0011
Epoch 7117/100000
63/63 [=====] - 0s 3ms/step - loss: 6.9801e-04 -
val_loss: 9.2757e-04
Epoch 7118/100000
63/63 [=====] - 0s 4ms/step - loss: 5.4557e-04 -
val_loss: 6.9281e-04
Epoch 7119/100000
63/63 [=====] - 0s 4ms/step - loss: 6.6783e-04 -
val_loss: 6.0236e-04
Epoch 7120/100000
58/63 [=====>...] - ETA: 0s - loss: 4.8663e-04Epoch 07119:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.9139e-04 -
val_loss: 3.8175e-04
Epoch 7121/100000
47/63 [=====>...] - ETA: 0s - loss: 5.4014e-04Epoch 07120:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 5.0784e-04 -
val_loss: 4.7946e-04
Epoch 7122/100000
63/63 [=====] - 0s 4ms/step - loss: 5.8380e-04 -
val_loss: 5.2773e-04
Epoch 7123/100000
61/63 [=====>.] - ETA: 0s - loss: 6.5072e-04Epoch 07122:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 6.7703e-04 -
val_loss: 4.7084e-04
Epoch 7124/100000

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58/63 [=====>...] - ETA: 0s - loss: 6.5209e-04Epoch 07123:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 6.3369e-04 -
val_loss: 3.7674e-04
Epoch 7125/100000
63/63 [=====] - 0s 3ms/step - loss: 5.5874e-04 -
val_loss: 6.6827e-04
Epoch 7126/100000
63/63 [=====] - 0s 3ms/step - loss: 6.0093e-04 -
val_loss: 5.1427e-04
Epoch 7127/100000
63/63 [=====] - 0s 4ms/step - loss: 7.1672e-04 -
val_loss: 5.8478e-04
Epoch 7128/100000
63/63 [=====] - 0s 4ms/step - loss: 4.9184e-04 -
val_loss: 8.2085e-04
Epoch 7129/100000
63/63 [=====] - 0s 4ms/step - loss: 8.2433e-04 -
val_loss: 0.0010
Epoch 7130/100000
63/63 [=====] - 0s 4ms/step - loss: 6.5780e-04 -
val_loss: 5.3650e-04
Epoch 7131/100000
63/63 [=====] - 0s 3ms/step - loss: 6.0340e-04 -
val_loss: 8.0781e-04
Epoch 7132/100000
63/63 [=====] - 0s 4ms/step - loss: 6.9386e-04 -
val_loss: 6.7827e-04
Epoch 7133/100000
63/63 [=====] - 0s 4ms/step - loss: 5.9225e-04 -
val_loss: 5.3172e-04
Epoch 7134/100000
63/63 [=====] - 0s 4ms/step - loss: 6.5014e-04 -
val_loss: 6.2555e-04
Epoch 7135/100000
63/63 [=====] - 0s 4ms/step - loss: 6.0919e-04 -
val_loss: 5.8668e-04
Epoch 7136/100000
63/63 [=====] - 0s 4ms/step - loss: 6.3934e-04 -
val_loss: 5.3316e-04
Epoch 7137/100000
63/63 [=====] - 0s 4ms/step - loss: 8.9663e-04 -
val_loss: 7.9710e-04
Epoch 7138/100000
60/63 [=====>...] - ETA: 0s - loss: 9.7766e-04Epoch 07137:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 9.8249e-04 -
val_loss: 4.5062e-04

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Epoch 7139/100000  
63/63 [=====] - 0s 4ms/step - loss: 8.0281e-04 -  
val\_loss: 5.0091e-04  
Epoch 7140/100000  
60/63 [=====>..] - ETA: 0s - loss: 4.6959e-04Epoch 07139:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 4.5997e-04 -  
val\_loss: 4.3769e-04  
Epoch 7141/100000  
63/63 [=====] - 0s 3ms/step - loss: 4.3378e-04 -  
val\_loss: 5.3402e-04  
Epoch 7142/100000  
63/63 [=====] - 0s 4ms/step - loss: 5.8274e-04 -  
val\_loss: 5.9923e-04  
Epoch 7143/100000  
63/63 [=====] - 0s 3ms/step - loss: 6.7937e-04 -  
val\_loss: 6.4594e-04  
Epoch 7144/100000  
61/63 [=====>..] - ETA: 0s - loss: 6.4263e-04Epoch 07143:  
early stopping THR  
63/63 [=====] - 0s 3ms/step - loss: 6.3208e-04 -  
val\_loss: 4.7378e-04  
Epoch 7145/100000  
63/63 [=====] - 0s 3ms/step - loss: 5.5504e-04 -  
val\_loss: 6.2950e-04  
Epoch 7146/100000  
63/63 [=====] - 0s 3ms/step - loss: 5.6512e-04 -  
val\_loss: 8.3183e-04  
Epoch 7147/100000  
63/63 [=====] - 0s 4ms/step - loss: 4.3614e-04 -  
val\_loss: 5.1604e-04  
Epoch 7148/100000  
63/63 [=====] - 0s 4ms/step - loss: 4.1459e-04 -  
val\_loss: 5.3338e-04  
Epoch 7149/100000  
63/63 [=====] - 0s 4ms/step - loss: 5.6316e-04 -  
val\_loss: 5.2451e-04  
Epoch 7150/100000  
63/63 [=====] - 0s 4ms/step - loss: 6.7269e-04 -  
val\_loss: 6.7636e-04  
Epoch 7151/100000  
63/63 [=====] - 0s 4ms/step - loss: 5.4228e-04 -  
val\_loss: 5.2058e-04  
Epoch 7152/100000  
63/63 [=====] - 0s 3ms/step - loss: 6.1614e-04 -  
val\_loss: 5.0087e-04  
Epoch 7153/100000  
49/63 [=====>...] - ETA: 0s - loss: 8.4855e-04Epoch 07152:

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early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 7.9926e-04 -
val_loss: 4.1190e-04
Epoch 7154/100000
63/63 [=====] - 0s 4ms/step - loss: 6.7819e-04 -
val_loss: 5.9491e-04
Epoch 7155/100000
63/63 [=====] - 0s 4ms/step - loss: 6.3170e-04 -
val_loss: 5.9341e-04
Epoch 7156/100000
63/63 [=====] - 0s 3ms/step - loss: 6.3523e-04 -
val_loss: 0.0019
Epoch 7157/100000
63/63 [=====] - 0s 3ms/step - loss: 8.1585e-04 -
val_loss: 6.1754e-04
Epoch 7158/100000
63/63 [=====] - 0s 4ms/step - loss: 0.0010 - val_loss:
7.0145e-04
Epoch 7159/100000
63/63 [=====] - 0s 3ms/step - loss: 6.5681e-04 -
val_loss: 5.1688e-04
Epoch 7160/100000
63/63 [=====] - 0s 3ms/step - loss: 5.9897e-04 -
val_loss: 6.9266e-04
Epoch 7161/100000
63/63 [=====] - ETA: 0s - loss: 7.6454e-04Epoch 07160:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 7.6454e-04 -
val_loss: 4.6437e-04
Epoch 7162/100000
63/63 [=====] - 0s 4ms/step - loss: 7.3050e-04 -
val_loss: 0.0011
Epoch 7163/100000
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val_loss:
0.0012
Epoch 7164/100000
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val_loss:
0.0010
Epoch 7165/100000
63/63 [=====] - 0s 4ms/step - loss: 0.0012 - val_loss:
0.0014
Epoch 7166/100000
63/63 [=====] - 0s 4ms/step - loss: 9.3211e-04 -
val_loss: 6.2297e-04
Epoch 7167/100000
63/63 [=====] - 0s 4ms/step - loss: 8.0509e-04 -
val_loss: 5.4917e-04
Epoch 7168/100000

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63/63 [=====] - 0s 3ms/step - loss: 8.4659e-04 -
val_loss: 7.1777e-04
Epoch 7169/100000
63/63 [=====] - 0s 3ms/step - loss: 7.1496e-04 -
val_loss: 5.2134e-04
Epoch 7170/100000
42/63 [=====>...] - ETA: 0s - loss: 9.1777e-04Epoch 07169:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 8.2225e-04 -
val_loss: 4.8755e-04
Epoch 7171/100000
63/63 [=====] - 0s 3ms/step - loss: 8.8888e-04 -
val_loss: 0.0016
Epoch 7172/100000
63/63 [=====] - 0s 4ms/step - loss: 0.0012 - val_loss:
7.6794e-04
Epoch 7173/100000
63/63 [=====] - 0s 4ms/step - loss: 8.8499e-04 -
val_loss: 8.9685e-04
Epoch 7174/100000
63/63 [=====] - 0s 4ms/step - loss: 0.0010 - val_loss:
5.1577e-04
Epoch 7175/100000
46/63 [=====>...] - ETA: 0s - loss: 7.7569e-04Epoch 07174:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 7.5177e-04 -
val_loss: 4.4299e-04
Epoch 7176/100000
59/63 [=====>...] - ETA: 0s - loss: 6.8002e-04Epoch 07175:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 6.8249e-04 -
val_loss: 4.4667e-04
Epoch 7177/100000
63/63 [=====] - 0s 3ms/step - loss: 7.3975e-04 -
val_loss: 0.0012
Epoch 7178/100000
63/63 [=====] - 0s 4ms/step - loss: 9.2237e-04 -
val_loss: 8.3596e-04
Epoch 7179/100000
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val_loss:
0.0013
Epoch 7180/100000
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val_loss:
0.0011
Epoch 7181/100000
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val_loss:
7.3825e-04
Epoch 7182/100000

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63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val_loss:
0.0015
Epoch 7183/100000
63/63 [=====] - 0s 3ms/step - loss: 8.8494e-04 -
val_loss: 7.2146e-04
Epoch 7184/100000
63/63 [=====] - 0s 4ms/step - loss: 6.4747e-04 -
val_loss: 7.1569e-04
Epoch 7185/100000
63/63 [=====] - 0s 4ms/step - loss: 6.0350e-04 -
val_loss: 5.4351e-04
Epoch 7186/100000
63/63 [=====] - 0s 4ms/step - loss: 6.6382e-04 -
val_loss: 5.6067e-04
Epoch 7187/100000
63/63 [=====] - 0s 4ms/step - loss: 7.9919e-04 -
val_loss: 0.0010
Epoch 7188/100000
57/63 [=====>...] - ETA: 0s - loss: 6.5650e-04Epoch 07187:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 6.5967e-04 -
val_loss: 4.2164e-04
Epoch 7189/100000
63/63 [=====] - 0s 3ms/step - loss: 6.5113e-04 -
val_loss: 8.2393e-04
Epoch 7190/100000
63/63 [=====] - 0s 4ms/step - loss: 8.6429e-04 -
val_loss: 0.0016
Epoch 7191/100000
63/63 [=====] - 0s 4ms/step - loss: 0.0010 - val_loss:
6.4992e-04
Epoch 7192/100000
63/63 [=====] - 0s 3ms/step - loss: 8.0429e-04 -
val_loss: 7.1518e-04
Epoch 7193/100000
63/63 [=====] - 0s 4ms/step - loss: 6.5081e-04 -
val_loss: 5.9328e-04
Epoch 7194/100000
63/63 [=====] - 0s 4ms/step - loss: 8.3664e-04 -
val_loss: 5.5240e-04
Epoch 7195/100000
63/63 [=====] - 0s 3ms/step - loss: 8.0601e-04 -
val_loss: 6.7922e-04
Epoch 7196/100000
63/63 [=====] - 0s 3ms/step - loss: 6.0806e-04 -
val_loss: 5.2500e-04
Epoch 7197/100000
63/63 [=====] - 0s 3ms/step - loss: 6.2924e-04 -

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val_loss: 5.8579e-04
Epoch 7198/100000
63/63 [=====] - 0s 3ms/step - loss: 7.3367e-04 -
val_loss: 7.2093e-04
Epoch 7199/100000
63/63 [=====] - 0s 4ms/step - loss: 7.8855e-04 -
val_loss: 7.0020e-04
Epoch 7200/100000
63/63 [=====] - 0s 4ms/step - loss: 7.9223e-04 -
val_loss: 0.0011
Epoch 7201/100000
63/63 [=====] - 0s 4ms/step - loss: 6.8976e-04 -
val_loss: 8.3010e-04
Epoch 7202/100000
63/63 [=====] - 0s 4ms/step - loss: 7.6769e-04 -
val_loss: 7.9480e-04
Epoch 7203/100000
63/63 [=====] - 0s 3ms/step - loss: 7.8088e-04 -
val_loss: 6.5562e-04
Epoch 7204/100000
63/63 [=====] - 0s 3ms/step - loss: 6.4415e-04 -
val_loss: 7.1910e-04
Epoch 7205/100000
63/63 [=====] - 0s 4ms/step - loss: 6.5744e-04 -
val_loss: 9.9744e-04
Epoch 7206/100000
63/63 [=====] - 0s 4ms/step - loss: 8.0564e-04 -
val_loss: 9.9863e-04
Epoch 7207/100000
63/63 [=====] - 0s 4ms/step - loss: 6.3052e-04 -
val_loss: 5.7669e-04
Epoch 7208/100000
63/63 [=====] - 0s 4ms/step - loss: 8.3551e-04 -
val_loss: 7.2278e-04
Epoch 7209/100000
63/63 [=====] - 0s 4ms/step - loss: 0.0010 - val_loss:
6.8611e-04
Epoch 7210/100000
63/63 [=====] - 0s 4ms/step - loss: 8.1833e-04 -
val_loss: 8.4306e-04
Epoch 7211/100000
63/63 [=====] - 0s 4ms/step - loss: 0.0012 - val_loss:
0.0012
Epoch 7212/100000
63/63 [=====] - 0s 4ms/step - loss: 0.0017 - val_loss:
0.0020
Epoch 7213/100000
63/63 [=====] - 0s 4ms/step - loss: 0.0026 - val_loss:

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0.0051  
 Epoch 7214/100000  
 63/63 [=====] - 0s 4ms/step - loss: 0.0023 - val\_loss:  
 0.0022  
 Epoch 7215/100000  
 63/63 [=====] - 0s 3ms/step - loss: 0.0018 - val\_loss:  
 0.0017  
 Epoch 7216/100000  
 63/63 [=====] - 0s 4ms/step - loss: 0.0016 - val\_loss:  
 0.0013  
 Epoch 7217/100000  
 63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val\_loss:  
 7.3631e-04  
 Epoch 7218/100000  
 63/63 [=====] - 0s 4ms/step - loss: 0.0012 - val\_loss:  
 0.0010  
 Epoch 7219/100000  
 63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss:  
 0.0011  
 Epoch 7220/100000  
 63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss:  
 8.9994e-04  
 Epoch 7221/100000  
 63/63 [=====] - 0s 4ms/step - loss: 7.1480e-04 -  
 val\_loss: 6.5276e-04  
 Epoch 7222/100000  
 63/63 [=====] - 0s 4ms/step - loss: 6.1033e-04 -  
 val\_loss: 6.8687e-04  
 Epoch 7223/100000  
 63/63 [=====] - 0s 4ms/step - loss: 8.6394e-04 -  
 val\_loss: 7.8165e-04  
 Epoch 7224/100000  
 63/63 [=====] - 0s 4ms/step - loss: 6.5412e-04 -  
 val\_loss: 6.7640e-04  
 Epoch 7225/100000  
 63/63 [=====] - 0s 4ms/step - loss: 6.4327e-04 -  
 val\_loss: 6.4811e-04  
 Epoch 7226/100000  
 63/63 [=====] - 0s 4ms/step - loss: 6.5746e-04 -  
 val\_loss: 7.0922e-04  
 Epoch 7227/100000  
 63/63 [=====] - 0s 4ms/step - loss: 6.6377e-04 -  
 val\_loss: 7.6413e-04  
 Epoch 7228/100000  
 63/63 [=====] - 0s 4ms/step - loss: 5.8948e-04 -  
 val\_loss: 8.0671e-04  
 Epoch 7229/100000  
 63/63 [=====] - 0s 4ms/step - loss: 5.4567e-04 -

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val_loss: 5.4374e-04
Epoch 7230/100000
55/63 [=====>...] - ETA: 0s - loss: 6.0735e-04Epoch 07229:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 6.1541e-04 -
val_loss: 4.2201e-04
Epoch 7231/100000
63/63 [=====] - 0s 4ms/step - loss: 6.3831e-04 -
val_loss: 6.2202e-04
Epoch 7232/100000
63/63 [=====] - 0s 3ms/step - loss: 8.7105e-04 -
val_loss: 0.0014
Epoch 7233/100000
63/63 [=====] - 0s 4ms/step - loss: 9.1825e-04 -
val_loss: 7.7954e-04
Epoch 7234/100000
63/63 [=====] - 0s 3ms/step - loss: 9.5426e-04 -
val_loss: 0.0012
Epoch 7235/100000
61/63 [=====>.] - ETA: 0s - loss: 8.0636e-04Epoch 07234:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 7.9817e-04 -
val_loss: 4.9109e-04
Epoch 7236/100000
63/63 [=====] - 0s 4ms/step - loss: 6.6437e-04 -
val_loss: 7.5931e-04
Epoch 7237/100000
63/63 [=====] - 0s 4ms/step - loss: 7.4168e-04 -
val_loss: 6.6266e-04
Epoch 7238/100000
63/63 [=====] - 0s 4ms/step - loss: 8.0571e-04 -
val_loss: 6.7387e-04
Epoch 7239/100000
63/63 [=====] - 0s 4ms/step - loss: 8.3574e-04 -
val_loss: 9.6130e-04
Epoch 7240/100000
63/63 [=====] - 0s 4ms/step - loss: 6.5994e-04 -
val_loss: 5.7430e-04
Epoch 7241/100000
63/63 [=====] - 0s 4ms/step - loss: 8.8334e-04 -
val_loss: 6.2375e-04
Epoch 7242/100000
63/63 [=====] - 0s 4ms/step - loss: 7.1871e-04 -
val_loss: 5.2539e-04
Epoch 7243/100000
63/63 [=====] - 0s 4ms/step - loss: 7.1069e-04 -
val_loss: 6.4051e-04
Epoch 7244/100000

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60/63 [=====>...] - ETA: 0s - loss: 5.7860e-04Epoch 07243:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.7656e-04 -
val_loss: 4.3022e-04
Epoch 7245/100000
55/63 [=====>...] - ETA: 0s - loss: 6.4970e-04Epoch 07244:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 6.6001e-04 -
val_loss: 2.9954e-04
Epoch 7246/100000
63/63 [=====] - 0s 3ms/step - loss: 7.1874e-04 -
val_loss: 7.1515e-04
Epoch 7247/100000
63/63 [=====] - 0s 3ms/step - loss: 7.3416e-04 -
val_loss: 0.0012
Epoch 7248/100000
63/63 [=====] - 0s 3ms/step - loss: 7.6034e-04 -
val_loss: 5.5980e-04
Epoch 7249/100000
56/63 [=====>...] - ETA: 0s - loss: 8.7570e-04Epoch 07248:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 8.3585e-04 -
val_loss: 4.6698e-04
Epoch 7250/100000
63/63 [=====] - 0s 4ms/step - loss: 6.3498e-04 -
val_loss: 5.8289e-04
Epoch 7251/100000
63/63 [=====] - 0s 3ms/step - loss: 7.1871e-04 -
val_loss: 5.6450e-04
Epoch 7252/100000
63/63 [=====] - 0s 3ms/step - loss: 6.1182e-04 -
val_loss: 5.5887e-04
Epoch 7253/100000
63/63 [=====] - 0s 3ms/step - loss: 6.6942e-04 -
val_loss: 5.2596e-04
Epoch 7254/100000
63/63 [=====] - 0s 4ms/step - loss: 6.0169e-04 -
val_loss: 5.3065e-04
Epoch 7255/100000
63/63 [=====] - 0s 4ms/step - loss: 5.5800e-04 -
val_loss: 6.0779e-04
Epoch 7256/100000
59/63 [=====>...] - ETA: 0s - loss: 6.1841e-04Epoch 07255:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 6.1872e-04 -
val_loss: 4.1725e-04
Epoch 7257/100000
63/63 [=====] - 0s 3ms/step - loss: 6.6144e-04 -

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val_loss: 5.8148e-04
Epoch 7258/100000
63/63 [=====] - 0s 3ms/step - loss: 8.4755e-04 -
val_loss: 9.1473e-04
Epoch 7259/100000
63/63 [=====] - 0s 4ms/step - loss: 6.6227e-04 -
val_loss: 5.0670e-04
Epoch 7260/100000
63/63 [=====] - 0s 4ms/step - loss: 7.5067e-04 -
val_loss: 5.4962e-04
Epoch 7261/100000
63/63 [=====] - 0s 4ms/step - loss: 7.5678e-04 -
val_loss: 6.2346e-04
Epoch 7262/100000
54/63 [=====>...] - ETA: 0s - loss: 7.1093e-04Epoch 07261:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 7.2011e-04 -
val_loss: 4.4606e-04
Epoch 7263/100000
54/63 [=====>...] - ETA: 0s - loss: 5.4276e-04Epoch 07262:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.4509e-04 -
val_loss: 4.9666e-04
Epoch 7264/100000
56/63 [=====>...] - ETA: 0s - loss: 7.0229e-04Epoch 07263:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 7.0887e-04 -
val_loss: 4.7676e-04
Epoch 7265/100000
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val_loss:
7.3320e-04
Epoch 7266/100000
63/63 [=====] - 0s 3ms/step - loss: 7.9398e-04 -
val_loss: 7.8482e-04
Epoch 7267/100000
63/63 [=====] - 0s 4ms/step - loss: 6.3489e-04 -
val_loss: 7.3614e-04
Epoch 7268/100000
63/63 [=====] - 0s 4ms/step - loss: 6.5046e-04 -
val_loss: 8.1319e-04
Epoch 7269/100000
63/63 [=====] - 0s 4ms/step - loss: 6.3730e-04 -
val_loss: 6.7810e-04
Epoch 7270/100000
63/63 [=====] - 0s 4ms/step - loss: 6.4946e-04 -
val_loss: 7.4879e-04
Epoch 7271/100000
63/63 [=====] - 0s 4ms/step - loss: 6.7296e-04 -

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val_loss: 0.0010
Epoch 7272/100000
63/63 [=====] - 0s 5ms/step - loss: 6.4275e-04 -
val_loss: 0.0010
Epoch 7273/100000
63/63 [=====] - 0s 4ms/step - loss: 6.8292e-04 -
val_loss: 8.5996e-04
Epoch 7274/100000
55/63 [=====>...] - ETA: 0s - loss: 6.7383e-04Epoch 07273:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 6.5443e-04 -
val_loss: 4.7359e-04
Epoch 7275/100000
63/63 [=====] - 0s 3ms/step - loss: 5.7232e-04 -
val_loss: 5.2692e-04
Epoch 7276/100000
53/63 [=====>...] - ETA: 0s - loss: 6.4048e-04Epoch 07275:
early stopping THR
63/63 [=====] - 0s 6ms/step - loss: 6.1452e-04 -
val_loss: 4.4971e-04
Epoch 7277/100000
63/63 [=====] - 0s 4ms/step - loss: 5.3367e-04 -
val_loss: 7.6950e-04
Epoch 7278/100000
63/63 [=====] - 0s 5ms/step - loss: 5.0746e-04 -
val_loss: 0.0010
Epoch 7279/100000
52/63 [=====>...] - ETA: 0s - loss: 5.9521e-04Epoch 07278:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.9251e-04 -
val_loss: 4.4397e-04
Epoch 7280/100000
52/63 [=====>...] - ETA: 0s - loss: 5.8511e-04Epoch 07279:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 6.0925e-04 -
val_loss: 3.8111e-04
Epoch 7281/100000
63/63 [=====] - 0s 3ms/step - loss: 6.1490e-04 -
val_loss: 5.9642e-04
Epoch 7282/100000
63/63 [=====] - ETA: 0s - loss: 7.6313e-04Epoch 07281:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 7.6313e-04 -
val_loss: 4.9017e-04
Epoch 7283/100000
56/63 [=====>...] - ETA: 0s - loss: 6.0712e-04Epoch 07282:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.8627e-04 -

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val_loss: 4.1549e-04
Epoch 7284/100000
63/63 [=====] - 0s 4ms/step - loss: 7.0116e-04 -
val_loss: 6.0922e-04
Epoch 7285/100000
63/63 [=====] - 0s 3ms/step - loss: 8.1350e-04 -
val_loss: 6.8249e-04
Epoch 7286/100000
63/63 [=====] - 0s 4ms/step - loss: 9.0494e-04 -
val_loss: 7.2175e-04
Epoch 7287/100000
63/63 [=====] - 0s 3ms/step - loss: 7.4615e-04 -
val_loss: 0.0012
Epoch 7288/100000
63/63 [=====] - 0s 4ms/step - loss: 9.4785e-04 -
val_loss: 8.5224e-04
Epoch 7289/100000
63/63 [=====] - 0s 4ms/step - loss: 9.8014e-04 -
val_loss: 9.3707e-04
Epoch 7290/100000
63/63 [=====] - 0s 4ms/step - loss: 9.9477e-04 -
val_loss: 6.0161e-04
Epoch 7291/100000
63/63 [=====] - 0s 3ms/step - loss: 6.5620e-04 -
val_loss: 5.4366e-04
Epoch 7292/100000
55/63 [=====>...] - ETA: 0s - loss: 7.0883e-04Epoch 07291:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 7.2691e-04 -
val_loss: 4.3964e-04
Epoch 7293/100000
63/63 [=====] - 0s 4ms/step - loss: 6.6412e-04 -
val_loss: 6.1290e-04
Epoch 7294/100000
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val_loss:
0.0014
Epoch 7295/100000
63/63 [=====] - 0s 3ms/step - loss: 6.6013e-04 -
val_loss: 5.7338e-04
Epoch 7296/100000
63/63 [=====] - 0s 4ms/step - loss: 5.9707e-04 -
val_loss: 5.4649e-04
Epoch 7297/100000
56/63 [=====>...] - ETA: 0s - loss: 6.5357e-04Epoch 07296:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 6.6647e-04 -
val_loss: 3.9890e-04
Epoch 7298/100000

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63/63 [=====] - 0s 4ms/step - loss: 6.3916e-04 -
val_loss: 6.4159e-04
Epoch 7299/100000
63/63 [=====] - 0s 4ms/step - loss: 6.4134e-04 -
val_loss: 6.1819e-04
Epoch 7300/100000
63/63 [=====] - 0s 3ms/step - loss: 3.9799e-04 -
val_loss: 5.5509e-04
Epoch 7301/100000
63/63 [=====] - 0s 4ms/step - loss: 7.5170e-04 -
val_loss: 0.0014
Epoch 7302/100000
63/63 [=====] - 0s 4ms/step - loss: 7.7979e-04 -
val_loss: 5.6289e-04
Epoch 7303/100000
63/63 [=====] - 0s 3ms/step - loss: 6.3656e-04 -
val_loss: 6.5923e-04
Epoch 7304/100000
59/63 [=====>...] - ETA: 0s - loss: 4.1596e-04Epoch 07303:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.0562e-04 -
val_loss: 4.9426e-04
Epoch 7305/100000
55/63 [=====>...] - ETA: 0s - loss: 6.6807e-04Epoch 07304:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 6.4482e-04 -
val_loss: 3.7176e-04
Epoch 7306/100000
63/63 [=====] - 0s 4ms/step - loss: 6.0802e-04 -
val_loss: 5.8870e-04
Epoch 7307/100000
56/63 [=====>...] - ETA: 0s - loss: 5.5512e-04Epoch 07306:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.7477e-04 -
val_loss: 3.6442e-04
Epoch 7308/100000
63/63 [=====] - ETA: 0s - loss: 7.0149e-04Epoch 07307:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 7.0149e-04 -
val_loss: 4.4972e-04
Epoch 7309/100000
59/63 [=====>...] - ETA: 0s - loss: 9.2586e-04Epoch 07308:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 9.0102e-04 -
val_loss: 4.1278e-04
Epoch 7310/100000
63/63 [=====] - 0s 4ms/step - loss: 8.0081e-04 -
val_loss: 6.2969e-04

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Epoch 7311/100000  
63/63 [=====] - 0s 3ms/step - loss: 7.6793e-04 -  
val\_loss: 6.5558e-04  
Epoch 7312/100000  
60/63 [=====>..] - ETA: 0s - loss: 6.8790e-04Epoch 07311:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 7.1628e-04 -  
val\_loss: 4.4098e-04  
Epoch 7313/100000  
63/63 [=====] - 0s 4ms/step - loss: 7.0353e-04 -  
val\_loss: 6.6188e-04  
Epoch 7314/100000  
63/63 [=====] - 0s 4ms/step - loss: 8.0118e-04 -  
val\_loss: 5.3019e-04  
Epoch 7315/100000  
63/63 [=====] - 0s 4ms/step - loss: 6.2916e-04 -  
val\_loss: 6.1505e-04  
Epoch 7316/100000  
54/63 [=====>...] - ETA: 0s - loss: 8.1097e-04Epoch 07315:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 7.7424e-04 -  
val\_loss: 4.6526e-04  
Epoch 7317/100000  
63/63 [=====] - 0s 4ms/step - loss: 8.1202e-04 -  
val\_loss: 5.3272e-04  
Epoch 7318/100000  
59/63 [=====>..] - ETA: 0s - loss: 5.0871e-04Epoch 07317:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 5.3410e-04 -  
val\_loss: 4.5698e-04  
Epoch 7319/100000  
63/63 [=====] - 0s 4ms/step - loss: 6.3869e-04 -  
val\_loss: 7.8085e-04  
Epoch 7320/100000  
58/63 [=====>...] - ETA: 0s - loss: 8.2184e-04Epoch 07319:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 8.1691e-04 -  
val\_loss: 4.8257e-04  
Epoch 7321/100000  
63/63 [=====] - 0s 3ms/step - loss: 7.4664e-04 -  
val\_loss: 5.5193e-04  
Epoch 7322/100000  
63/63 [=====] - 0s 4ms/step - loss: 6.6731e-04 -  
val\_loss: 6.4022e-04  
Epoch 7323/100000  
63/63 [=====] - 0s 3ms/step - loss: 5.4010e-04 -  
val\_loss: 5.0215e-04  
Epoch 7324/100000

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53/63 [=====>...] - ETA: 0s - loss: 7.4920e-04Epoch 07323:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 7.0082e-04 -
val_loss: 4.4184e-04
Epoch 7325/100000
63/63 [=====] - 0s 5ms/step - loss: 6.3587e-04 -
val_loss: 5.1308e-04
Epoch 7326/100000
63/63 [=====] - 0s 4ms/step - loss: 5.6976e-04 -
val_loss: 6.4497e-04
Epoch 7327/100000
63/63 [=====] - 0s 4ms/step - loss: 6.2303e-04 -
val_loss: 5.6404e-04
Epoch 7328/100000
63/63 [=====] - 0s 4ms/step - loss: 7.4042e-04 -
val_loss: 7.8824e-04
Epoch 7329/100000
63/63 [=====] - 0s 5ms/step - loss: 7.5390e-04 -
val_loss: 5.8450e-04
Epoch 7330/100000
63/63 [=====] - 0s 4ms/step - loss: 6.4400e-04 -
val_loss: 5.9758e-04
Epoch 7331/100000
63/63 [=====] - 0s 5ms/step - loss: 0.0010 - val_loss:
0.0011
Epoch 7332/100000
63/63 [=====] - 0s 4ms/step - loss: 8.2549e-04 -
val_loss: 7.8796e-04
Epoch 7333/100000
63/63 [=====] - 0s 4ms/step - loss: 8.6104e-04 -
val_loss: 6.9629e-04
Epoch 7334/100000
63/63 [=====] - 0s 4ms/step - loss: 7.6119e-04 -
val_loss: 6.9888e-04
Epoch 7335/100000
63/63 [=====] - 0s 4ms/step - loss: 6.5651e-04 -
val_loss: 5.4885e-04
Epoch 7336/100000
63/63 [=====] - 0s 4ms/step - loss: 0.0013 - val_loss:
0.0019
Epoch 7337/100000
63/63 [=====] - 0s 4ms/step - loss: 0.0019 - val_loss:
7.9651e-04
Epoch 7338/100000
63/63 [=====] - 0s 5ms/step - loss: 9.4168e-04 -
val_loss: 7.6629e-04
Epoch 7339/100000
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val_loss:

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6.8145e-04  
Epoch 7340/100000  
63/63 [=====] - 0s 4ms/step - loss: 9.1866e-04 -  
val\_loss: 6.2580e-04  
Epoch 7341/100000  
63/63 [=====] - 0s 4ms/step - loss: 9.7639e-04 -  
val\_loss: 8.1967e-04  
Epoch 7342/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss:  
8.0291e-04  
Epoch 7343/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss:  
0.0011  
Epoch 7344/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss:  
9.9587e-04  
Epoch 7345/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0016 - val\_loss:  
0.0014  
Epoch 7346/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0013 - val\_loss:  
8.3937e-04  
Epoch 7347/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss:  
0.0012  
Epoch 7348/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss:  
0.0016  
Epoch 7349/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0010 - val\_loss:  
6.6534e-04  
Epoch 7350/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.1913e-04 -  
val\_loss: 7.2931e-04  
Epoch 7351/100000  
63/63 [=====] - 0s 4ms/step - loss: 8.4919e-04 -  
val\_loss: 5.0694e-04  
Epoch 7352/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.1371e-04 -  
val\_loss: 8.9918e-04  
Epoch 7353/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.5282e-04 -  
val\_loss: 6.6072e-04  
Epoch 7354/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss:  
8.0509e-04  
Epoch 7355/100000  
63/63 [=====] - 0s 4ms/step - loss: 7.2236e-04 -



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val_loss: 7.0636e-04
Epoch 7356/100000
63/63 [=====] - 0s 3ms/step - loss: 7.2875e-04 -
val_loss: 8.0486e-04
Epoch 7357/100000
63/63 [=====] - 0s 3ms/step - loss: 7.6574e-04 -
val_loss: 7.3350e-04
Epoch 7358/100000
63/63 [=====] - 0s 4ms/step - loss: 7.5642e-04 -
val_loss: 7.2227e-04
Epoch 7359/100000
63/63 [=====] - 0s 3ms/step - loss: 7.4164e-04 -
val_loss: 7.2294e-04
Epoch 7360/100000
63/63 [=====] - 0s 3ms/step - loss: 7.4485e-04 -
val_loss: 6.0560e-04
Epoch 7361/100000
63/63 [=====] - 0s 3ms/step - loss: 0.0010 - val_loss:
7.1664e-04
Epoch 7362/100000
63/63 [=====] - 0s 3ms/step - loss: 8.4787e-04 -
val_loss: 7.6279e-04
Epoch 7363/100000
63/63 [=====] - 0s 4ms/step - loss: 8.9450e-04 -
val_loss: 6.8638e-04
Epoch 7364/100000
63/63 [=====] - 0s 4ms/step - loss: 6.5727e-04 -
val_loss: 5.6110e-04
Epoch 7365/100000
63/63 [=====] - 0s 4ms/step - loss: 6.4687e-04 -
val_loss: 7.0109e-04
Epoch 7366/100000
63/63 [=====] - 0s 4ms/step - loss: 6.5929e-04 -
val_loss: 6.1947e-04
Epoch 7367/100000
63/63 [=====] - 0s 3ms/step - loss: 7.1207e-04 -
val_loss: 5.9011e-04
Epoch 7368/100000
63/63 [=====] - 0s 4ms/step - loss: 7.0257e-04 -
val_loss: 7.2044e-04
Epoch 7369/100000
63/63 [=====] - 0s 3ms/step - loss: 8.2707e-04 -
val_loss: 5.5534e-04
Epoch 7370/100000
63/63 [=====] - 0s 3ms/step - loss: 9.5788e-04 -
val_loss: 6.9013e-04
Epoch 7371/100000
62/63 [=====>.] - ETA: 0s - loss: 5.9800e-04Epoch 07370:

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early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 5.9777e-04 -
val_loss: 4.4517e-04
Epoch 7372/100000
63/63 [=====] - 0s 4ms/step - loss: 6.5594e-04 -
val_loss: 6.3604e-04
Epoch 7373/100000
56/63 [=====>...] - ETA: 0s - loss: 6.0787e-04Epoch 07372:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 6.0968e-04 -
val_loss: 4.8166e-04
Epoch 7374/100000
63/63 [=====] - 0s 3ms/step - loss: 6.2829e-04 -
val_loss: 5.0224e-04
Epoch 7375/100000
63/63 [=====] - 0s 4ms/step - loss: 6.6197e-04 -
val_loss: 5.8939e-04
Epoch 7376/100000
61/63 [=====>.] - ETA: 0s - loss: 7.2530e-04Epoch 07375:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 7.1795e-04 -
val_loss: 4.9660e-04
Epoch 7377/100000
63/63 [=====] - 0s 4ms/step - loss: 6.5962e-04 -
val_loss: 5.8392e-04
Epoch 7378/100000
60/63 [=====>..] - ETA: 0s - loss: 6.4382e-04Epoch 07377:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 6.3193e-04 -
val_loss: 4.4136e-04
Epoch 7379/100000
50/63 [=====>...] - ETA: 0s - loss: 9.4692e-04Epoch 07378:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 8.9089e-04 -
val_loss: 4.4249e-04
Epoch 7380/100000
63/63 [=====] - 0s 4ms/step - loss: 6.0223e-04 -
val_loss: 6.0149e-04
Epoch 7381/100000
63/63 [=====] - 0s 4ms/step - loss: 6.6283e-04 -
val_loss: 7.2825e-04
Epoch 7382/100000
63/63 [=====] - 0s 4ms/step - loss: 6.1229e-04 -
val_loss: 6.5361e-04
Epoch 7383/100000
63/63 [=====] - 0s 4ms/step - loss: 5.4427e-04 -
val_loss: 5.6997e-04
Epoch 7384/100000

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63/63 [=====] - 0s 4ms/step - loss: 6.2017e-04 -
val_loss: 8.0751e-04
Epoch 7385/100000
63/63 [=====] - 0s 4ms/step - loss: 6.7421e-04 -
val_loss: 5.3441e-04
Epoch 7386/100000
63/63 [=====] - 0s 3ms/step - loss: 7.8529e-04 -
val_loss: 0.0010
Epoch 7387/100000
63/63 [=====] - 0s 3ms/step - loss: 6.9160e-04 -
val_loss: 6.9996e-04
Epoch 7388/100000
63/63 [=====] - 0s 3ms/step - loss: 6.5402e-04 -
val_loss: 0.0013
Epoch 7389/100000
63/63 [=====] - 0s 3ms/step - loss: 7.1862e-04 -
val_loss: 0.0011
Epoch 7390/100000
63/63 [=====] - 0s 3ms/step - loss: 6.5987e-04 -
val_loss: 6.8403e-04
Epoch 7391/100000
63/63 [=====] - 0s 3ms/step - loss: 7.1159e-04 -
val_loss: 7.0158e-04
Epoch 7392/100000
58/63 [=====>...] - ETA: 0s - loss: 6.2321e-04Epoch 07391:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 6.1817e-04 -
val_loss: 4.3701e-04
Epoch 7393/100000
63/63 [=====] - 0s 3ms/step - loss: 6.7507e-04 -
val_loss: 7.1487e-04
Epoch 7394/100000
60/63 [=====>..] - ETA: 0s - loss: 7.2409e-04Epoch 07393:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 7.1419e-04 -
val_loss: 4.6720e-04
Epoch 7395/100000
63/63 [=====] - 0s 3ms/step - loss: 8.4874e-04 -
val_loss: 5.0811e-04
Epoch 7396/100000
63/63 [=====] - 0s 3ms/step - loss: 6.6195e-04 -
val_loss: 9.8612e-04
Epoch 7397/100000
63/63 [=====] - 0s 3ms/step - loss: 7.0945e-04 -
val_loss: 5.7208e-04
Epoch 7398/100000
63/63 [=====] - 0s 3ms/step - loss: 6.9498e-04 -
val_loss: 8.5223e-04

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Epoch 7399/100000
63/63 [=====] - 0s 3ms/step - loss: 6.9447e-04 -
val_loss: 8.0547e-04
Epoch 7400/100000
63/63 [=====] - 0s 4ms/step - loss: 6.4080e-04 -
val_loss: 5.3852e-04
Epoch 7401/100000
56/63 [=====>...] - ETA: 0s - loss: 5.6116e-04Epoch 07400:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 5.5487e-04 -
val_loss: 4.8710e-04
Epoch 7402/100000
63/63 [=====] - 0s 3ms/step - loss: 5.9796e-04 -
val_loss: 5.2637e-04
Epoch 7403/100000
60/63 [=====>..] - ETA: 0s - loss: 4.8096e-04Epoch 07402:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 4.7944e-04 -
val_loss: 4.8978e-04
Epoch 7404/100000
63/63 [=====] - 0s 3ms/step - loss: 6.9328e-04 -
val_loss: 5.5782e-04
Epoch 7405/100000
63/63 [=====] - 0s 3ms/step - loss: 7.1873e-04 -
val_loss: 8.6655e-04
Epoch 7406/100000
63/63 [=====] - 0s 3ms/step - loss: 8.0836e-04 -
val_loss: 5.5605e-04
Epoch 7407/100000
63/63 [=====] - 0s 4ms/step - loss: 6.6878e-04 -
val_loss: 6.3492e-04
Epoch 7408/100000
63/63 [=====] - 0s 3ms/step - loss: 5.5289e-04 -
val_loss: 5.2945e-04
Epoch 7409/100000
63/63 [=====] - 0s 3ms/step - loss: 6.1763e-04 -
val_loss: 6.4041e-04
Epoch 7410/100000
63/63 [=====] - 0s 3ms/step - loss: 6.8173e-04 -
val_loss: 5.3104e-04
Epoch 7411/100000
63/63 [=====] - 0s 4ms/step - loss: 6.5605e-04 -
val_loss: 5.6941e-04
Epoch 7412/100000
63/63 [=====] - 0s 3ms/step - loss: 5.9028e-04 -
val_loss: 6.8117e-04
Epoch 7413/100000
63/63 [=====] - 0s 3ms/step - loss: 6.4592e-04 -

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val_loss: 7.4156e-04
Epoch 7414/100000
63/63 [=====] - 0s 3ms/step - loss: 6.4339e-04 -
val_loss: 7.9163e-04
Epoch 7415/100000
63/63 [=====] - 0s 3ms/step - loss: 7.0686e-04 -
val_loss: 5.5981e-04
Epoch 7416/100000
63/63 [=====] - 0s 3ms/step - loss: 6.3150e-04 -
val_loss: 7.7658e-04
Epoch 7417/100000
63/63 [=====] - 0s 3ms/step - loss: 7.0528e-04 -
val_loss: 6.6638e-04
Epoch 7418/100000
55/63 [=====>...] - ETA: 0s - loss: 6.2641e-04Epoch 07417:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 6.3591e-04 -
val_loss: 4.6415e-04
Epoch 7419/100000
63/63 [=====] - 0s 3ms/step - loss: 5.8675e-04 -
val_loss: 6.1283e-04
Epoch 7420/100000
63/63 [=====] - 0s 4ms/step - loss: 5.2559e-04 -
val_loss: 5.3997e-04
Epoch 7421/100000
63/63 [=====] - 0s 4ms/step - loss: 8.4144e-04 -
val_loss: 0.0011
Epoch 7422/100000
59/63 [=====>..] - ETA: 0s - loss: 7.4007e-04Epoch 07421:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 7.1844e-04 -
val_loss: 4.6171e-04
Epoch 7423/100000
63/63 [=====] - 0s 3ms/step - loss: 6.8499e-04 -
val_loss: 7.6579e-04
Epoch 7424/100000
57/63 [=====>...] - ETA: 0s - loss: 5.6360e-04Epoch 07423:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 5.5402e-04 -
val_loss: 4.0212e-04
Epoch 7425/100000
63/63 [=====] - 0s 4ms/step - loss: 8.7077e-04 -
val_loss: 5.4176e-04
Epoch 7426/100000
63/63 [=====] - 0s 4ms/step - loss: 6.9709e-04 -
val_loss: 7.4026e-04
Epoch 7427/100000
56/63 [=====>...] - ETA: 0s - loss: 5.2009e-04Epoch 07426:

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early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.7735e-04 -
val_loss: 3.2761e-04
Epoch 7428/100000
63/63 [=====] - 0s 4ms/step - loss: 7.4912e-04 -
val_loss: 0.0026
Epoch 7429/100000
63/63 [=====] - 0s 3ms/step - loss: 9.2470e-04 -
val_loss: 6.1538e-04
Epoch 7430/100000
63/63 [=====] - 0s 4ms/step - loss: 7.6780e-04 -
val_loss: 8.2450e-04
Epoch 7431/100000
63/63 [=====] - 0s 4ms/step - loss: 6.7574e-04 -
val_loss: 7.7597e-04
Epoch 7432/100000
61/63 [=====>.] - ETA: 0s - loss: 7.3146e-04Epoch 07431:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 7.4346e-04 -
val_loss: 4.7814e-04
Epoch 7433/100000
63/63 [=====] - 0s 4ms/step - loss: 6.2443e-04 -
val_loss: 6.7913e-04
Epoch 7434/100000
63/63 [=====] - 0s 4ms/step - loss: 6.0177e-04 -
val_loss: 8.0732e-04
Epoch 7435/100000
63/63 [=====] - 0s 3ms/step - loss: 6.2465e-04 -
val_loss: 8.2216e-04
Epoch 7436/100000
63/63 [=====] - 0s 4ms/step - loss: 5.1720e-04 -
val_loss: 7.3415e-04
Epoch 7437/100000
63/63 [=====] - 0s 3ms/step - loss: 4.4449e-04 -
val_loss: 5.8416e-04
Epoch 7438/100000
59/63 [=====>..] - ETA: 0s - loss: 5.9250e-04Epoch 07437:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 6.0250e-04 -
val_loss: 4.0525e-04
Epoch 7439/100000
61/63 [=====>.] - ETA: 0s - loss: 6.3842e-04Epoch 07438:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 6.5620e-04 -
val_loss: 4.1048e-04
Epoch 7440/100000
58/63 [=====>...] - ETA: 0s - loss: 7.0548e-04Epoch 07439:
early stopping THR

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63/63 [=====] - 0s 3ms/step - loss: 7.0057e-04 -
val_loss: 4.7959e-04
Epoch 7441/100000
63/63 [=====] - 0s 3ms/step - loss: 6.7393e-04 -
val_loss: 8.2884e-04
Epoch 7442/100000
63/63 [=====] - 0s 3ms/step - loss: 5.3863e-04 -
val_loss: 8.6760e-04
Epoch 7443/100000
60/63 [=====>..] - ETA: 0s - loss: 3.8546e-04Epoch 07442:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 3.8429e-04 -
val_loss: 4.8104e-04
Epoch 7444/100000
63/63 [=====] - 0s 3ms/step - loss: 6.4438e-04 -
val_loss: 6.4763e-04
Epoch 7445/100000
58/63 [=====>...] - ETA: 0s - loss: 6.2577e-04Epoch 07444:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 6.0994e-04 -
val_loss: 4.3032e-04
Epoch 7446/100000
59/63 [=====>..] - ETA: 0s - loss: 5.8218e-04Epoch 07445:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 6.3428e-04 -
val_loss: 4.9779e-04
Epoch 7447/100000
63/63 [=====] - 0s 3ms/step - loss: 6.1102e-04 -
val_loss: 6.6978e-04
Epoch 7448/100000
59/63 [=====>..] - ETA: 0s - loss: 6.5809e-04Epoch 07447:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 6.7353e-04 -
val_loss: 4.4428e-04
Epoch 7449/100000
55/63 [=====>...] - ETA: 0s - loss: 6.6616e-04Epoch 07448:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 6.5537e-04 -
val_loss: 3.9609e-04
Epoch 7450/100000
63/63 [=====] - 0s 3ms/step - loss: 5.2588e-04 -
val_loss: 5.4872e-04
Epoch 7451/100000
63/63 [=====] - 0s 3ms/step - loss: 5.9143e-04 -
val_loss: 5.9035e-04
Epoch 7452/100000
63/63 [=====] - 0s 5ms/step - loss: 5.0260e-04 -
val_loss: 5.0693e-04

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Epoch 7453/100000  
62/63 [=====>.] - ETA: 0s - loss: 5.4965e-04Epoch 07452:  
early stopping THR  
63/63 [=====] - 0s 5ms/step - loss: 5.4815e-04 -  
val\_loss: 4.2185e-04  
Epoch 7454/100000  
53/63 [=====>...] - ETA: 0s - loss: 7.7566e-04Epoch 07453:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 7.3823e-04 -  
val\_loss: 4.9907e-04  
Epoch 7455/100000  
63/63 [=====] - 0s 4ms/step - loss: 5.8384e-04 -  
val\_loss: 5.2084e-04  
Epoch 7456/100000  
63/63 [=====] - 0s 4ms/step - loss: 7.1231e-04 -  
val\_loss: 5.7679e-04  
Epoch 7457/100000  
58/63 [=====>...] - ETA: 0s - loss: 5.7376e-04Epoch 07456:  
early stopping THR  
63/63 [=====] - 0s 3ms/step - loss: 5.5095e-04 -  
val\_loss: 4.2858e-04  
Epoch 7458/100000  
63/63 [=====] - 0s 4ms/step - loss: 6.5041e-04 -  
val\_loss: 8.4212e-04  
Epoch 7459/100000  
63/63 [=====] - 0s 4ms/step - loss: 6.4214e-04 -  
val\_loss: 6.6657e-04  
Epoch 7460/100000  
63/63 [=====] - 0s 4ms/step - loss: 7.6775e-04 -  
val\_loss: 0.0010  
Epoch 7461/100000  
63/63 [=====] - 0s 4ms/step - loss: 8.1373e-04 -  
val\_loss: 8.1276e-04  
Epoch 7462/100000  
63/63 [=====] - 0s 4ms/step - loss: 5.9609e-04 -  
val\_loss: 5.7462e-04  
Epoch 7463/100000  
63/63 [=====] - 0s 4ms/step - loss: 6.9310e-04 -  
val\_loss: 6.6893e-04  
Epoch 7464/100000  
50/63 [=====>...] - ETA: 0s - loss: 6.5921e-04Epoch 07463:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 6.7216e-04 -  
val\_loss: 4.6887e-04  
Epoch 7465/100000  
63/63 [=====] - 0s 3ms/step - loss: 5.8634e-04 -  
val\_loss: 5.8705e-04  
Epoch 7466/100000



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54/63 [=====>...] - ETA: 0s - loss: 4.7120e-04Epoch 07465:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.9858e-04 -
val_loss: 4.2299e-04
Epoch 7467/100000
63/63 [=====] - 0s 4ms/step - loss: 5.0449e-04 -
val_loss: 7.5954e-04
Epoch 7468/100000
63/63 [=====] - 0s 4ms/step - loss: 5.0164e-04 -
val_loss: 6.0514e-04
Epoch 7469/100000
55/63 [=====>...] - ETA: 0s - loss: 5.4385e-04Epoch 07468:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.7807e-04 -
val_loss: 4.7501e-04
Epoch 7470/100000
63/63 [=====] - 0s 4ms/step - loss: 6.2076e-04 -
val_loss: 6.1781e-04
Epoch 7471/100000
63/63 [=====] - 0s 4ms/step - loss: 5.5772e-04 -
val_loss: 7.5993e-04
Epoch 7472/100000
63/63 [=====] - 0s 4ms/step - loss: 4.4129e-04 -
val_loss: 8.1951e-04
Epoch 7473/100000
60/63 [=====>..] - ETA: 0s - loss: 5.7621e-04Epoch 07472:
early stopping THR
63/63 [=====] - 0s 5ms/step - loss: 6.2551e-04 -
val_loss: 3.9749e-04
Epoch 7474/100000
54/63 [=====>...] - ETA: 0s - loss: 6.6414e-04Epoch 07473:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 6.4145e-04 -
val_loss: 4.0262e-04
Epoch 7475/100000
63/63 [=====] - 0s 3ms/step - loss: 5.1735e-04 -
val_loss: 6.6098e-04
Epoch 7476/100000
63/63 [=====] - 0s 4ms/step - loss: 6.4405e-04 -
val_loss: 9.5886e-04
Epoch 7477/100000
63/63 [=====] - 0s 3ms/step - loss: 6.9570e-04 -
val_loss: 5.9105e-04
Epoch 7478/100000
49/63 [=====>...] - ETA: 0s - loss: 3.9573e-04Epoch 07477:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.4623e-04 -
val_loss: 3.5841e-04

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Epoch 7479/100000  
57/63 [=====>...] - ETA: 0s - loss: 5.6800e-04Epoch 07478:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 5.8923e-04 -  
val\_loss: 4.4532e-04  
Epoch 7480/100000  
63/63 [=====] - 0s 4ms/step - loss: 5.7041e-04 -  
val\_loss: 8.5177e-04  
Epoch 7481/100000  
63/63 [=====] - 0s 3ms/step - loss: 4.9571e-04 -  
val\_loss: 6.8932e-04  
Epoch 7482/100000  
63/63 [=====] - 0s 3ms/step - loss: 4.5215e-04 -  
val\_loss: 6.0288e-04  
Epoch 7483/100000  
63/63 [=====] - 0s 4ms/step - loss: 6.5232e-04 -  
val\_loss: 6.2788e-04  
Epoch 7484/100000  
52/63 [=====>...] - ETA: 0s - loss: 5.1309e-04Epoch 07483:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 5.4644e-04 -  
val\_loss: 4.1542e-04  
Epoch 7485/100000  
63/63 [=====] - 0s 4ms/step - loss: 5.6153e-04 -  
val\_loss: 0.0012  
Epoch 7486/100000  
63/63 [=====] - 0s 3ms/step - loss: 6.6082e-04 -  
val\_loss: 8.4841e-04  
Epoch 7487/100000  
63/63 [=====] - 0s 3ms/step - loss: 6.7878e-04 -  
val\_loss: 7.6079e-04  
Epoch 7488/100000  
63/63 [=====] - 0s 4ms/step - loss: 8.1804e-04 -  
val\_loss: 7.9679e-04  
Epoch 7489/100000  
63/63 [=====] - 0s 4ms/step - loss: 5.1124e-04 -  
val\_loss: 5.2606e-04  
Epoch 7490/100000  
63/63 [=====] - 0s 4ms/step - loss: 5.3031e-04 -  
val\_loss: 5.0888e-04  
Epoch 7491/100000  
63/63 [=====] - 0s 4ms/step - loss: 6.0826e-04 -  
val\_loss: 5.1205e-04  
Epoch 7492/100000  
63/63 [=====] - 0s 4ms/step - loss: 5.0471e-04 -  
val\_loss: 7.2797e-04  
Epoch 7493/100000  
58/63 [=====>...] - ETA: 0s - loss: 6.2080e-04Epoch 07492:

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early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 6.2609e-04 -
val_loss: 4.4207e-04
Epoch 7494/100000
63/63 [=====] - 0s 3ms/step - loss: 5.6714e-04 -
val_loss: 6.2370e-04
Epoch 7495/100000
63/63 [=====] - 0s 4ms/step - loss: 6.1907e-04 -
val_loss: 5.0816e-04
Epoch 7496/100000
63/63 [=====] - 0s 4ms/step - loss: 6.9781e-04 -
val_loss: 6.7754e-04
Epoch 7497/100000
63/63 [=====] - 0s 4ms/step - loss: 6.6057e-04 -
val_loss: 6.3849e-04
Epoch 7498/100000
55/63 [=====>...] - ETA: 0s - loss: 5.6994e-04Epoch 07497:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.3262e-04 -
val_loss: 3.9870e-04
Epoch 7499/100000
56/63 [=====>...] - ETA: 0s - loss: 4.9395e-04Epoch 07498:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.2648e-04 -
val_loss: 4.0916e-04
Epoch 7500/100000
55/63 [=====>...] - ETA: 0s - loss: 5.8597e-04Epoch 07499:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.6048e-04 -
val_loss: 4.5308e-04
Epoch 7501/100000
63/63 [=====] - 0s 3ms/step - loss: 5.4648e-04 -
val_loss: 5.9459e-04
Epoch 7502/100000
63/63 [=====] - 0s 4ms/step - loss: 7.3064e-04 -
val_loss: 0.0013
Epoch 7503/100000
63/63 [=====] - 0s 4ms/step - loss: 5.7171e-04 -
val_loss: 9.3169e-04
Epoch 7504/100000
63/63 [=====] - 0s 4ms/step - loss: 5.4678e-04 -
val_loss: 6.6600e-04
Epoch 7505/100000
63/63 [=====] - 0s 4ms/step - loss: 6.8715e-04 -
val_loss: 5.7864e-04
Epoch 7506/100000
50/63 [=====>...] - ETA: 0s - loss: 5.2797e-04Epoch 07505:
early stopping THR

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63/63 [=====] - 0s 4ms/step - loss: 5.2213e-04 -
val_loss: 4.5763e-04
Epoch 7507/100000
63/63 [=====] - 0s 4ms/step - loss: 3.8052e-04 -
val_loss: 7.9012e-04
Epoch 7508/100000
63/63 [=====] - 0s 4ms/step - loss: 4.5025e-04 -
val_loss: 5.7715e-04
Epoch 7509/100000
63/63 [=====] - 0s 3ms/step - loss: 5.2846e-04 -
val_loss: 8.2866e-04
Epoch 7510/100000
63/63 [=====] - 0s 4ms/step - loss: 4.9359e-04 -
val_loss: 5.4266e-04
Epoch 7511/100000
63/63 [=====] - 0s 4ms/step - loss: 3.8273e-04 -
val_loss: 5.8216e-04
Epoch 7512/100000
63/63 [=====] - 0s 4ms/step - loss: 4.0239e-04 -
val_loss: 7.3720e-04
Epoch 7513/100000
63/63 [=====] - 0s 4ms/step - loss: 4.5234e-04 -
val_loss: 5.0210e-04
Epoch 7514/100000
63/63 [=====] - 0s 4ms/step - loss: 5.7677e-04 -
val_loss: 5.7091e-04
Epoch 7515/100000
63/63 [=====] - 0s 4ms/step - loss: 4.7361e-04 -
val_loss: 8.7592e-04
Epoch 7516/100000
52/63 [=====>...] - ETA: 0s - loss: 6.8767e-04Epoch 07515:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 6.4379e-04 -
val_loss: 4.6193e-04
Epoch 7517/100000
63/63 [=====] - 0s 4ms/step - loss: 4.7256e-04 -
val_loss: 5.3428e-04
Epoch 7518/100000
63/63 [=====] - 0s 4ms/step - loss: 5.8332e-04 -
val_loss: 5.8293e-04
Epoch 7519/100000
63/63 [=====] - 0s 3ms/step - loss: 5.6317e-04 -
val_loss: 5.9872e-04
Epoch 7520/100000
59/63 [=====>...] - ETA: 0s - loss: 5.7513e-04Epoch 07519:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 5.6965e-04 -
val_loss: 2.2712e-04

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Epoch 7521/100000
63/63 [=====] - 0s 4ms/step - loss: 5.9615e-04 -
val_loss: 6.9863e-04
Epoch 7522/100000
63/63 [=====] - 0s 3ms/step - loss: 5.1556e-04 -
val_loss: 5.2983e-04
Epoch 7523/100000
51/63 [=====>...] - ETA: 0s - loss: 4.5580e-04Epoch 07522:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.7988e-04 -
val_loss: 4.8075e-04
Epoch 7524/100000
63/63 [=====] - 0s 3ms/step - loss: 5.3432e-04 -
val_loss: 6.7155e-04
Epoch 7525/100000
51/63 [=====>...] - ETA: 0s - loss: 4.7839e-04Epoch 07524:
early stopping THR
63/63 [=====] - 0s 5ms/step - loss: 4.5211e-04 -
val_loss: 4.5025e-04
Epoch 7526/100000
63/63 [=====] - 0s 3ms/step - loss: 7.1955e-04 -
val_loss: 7.4537e-04
Epoch 7527/100000
63/63 [=====] - 0s 4ms/step - loss: 8.2430e-04 -
val_loss: 7.8418e-04
Epoch 7528/100000
63/63 [=====] - 0s 5ms/step - loss: 0.0011 - val_loss:
6.0613e-04
Epoch 7529/100000
52/63 [=====>...] - ETA: 0s - loss: 8.0175e-04Epoch 07528:
early stopping THR
63/63 [=====] - 0s 5ms/step - loss: 7.7776e-04 -
val_loss: 3.9295e-04
Epoch 7530/100000
50/63 [=====>...] - ETA: 0s - loss: 5.4324e-04Epoch 07529:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 5.4449e-04 -
val_loss: 4.0184e-04
Epoch 7531/100000
63/63 [=====] - ETA: 0s - loss: 5.4234e-04Epoch 07530:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 5.4234e-04 -
val_loss: 4.9302e-04
Epoch 7532/100000
62/63 [=====>.] - ETA: 0s - loss: 5.0122e-04Epoch 07531:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 5.0024e-04 -
val_loss: 4.8208e-04

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Epoch 7533/100000  
55/63 [=====>...] - ETA: 0s - loss: 3.9578e-04Epoch 07532:  
early stopping THR  
63/63 [=====] - 0s 3ms/step - loss: 4.3876e-04 -  
val\_loss: 3.5531e-04  
Epoch 7534/100000  
63/63 [=====] - 0s 4ms/step - loss: 5.0439e-04 -  
val\_loss: 5.0947e-04  
Epoch 7535/100000  
55/63 [=====>...] - ETA: 0s - loss: 4.9711e-04Epoch 07534:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 4.8704e-04 -  
val\_loss: 3.0242e-04  
Epoch 7536/100000  
59/63 [=====>..] - ETA: 0s - loss: 5.1545e-04Epoch 07535:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 4.9935e-04 -  
val\_loss: 2.5777e-04  
Epoch 7537/100000  
63/63 [=====] - 0s 4ms/step - loss: 5.1492e-04 -  
val\_loss: 5.2487e-04  
Epoch 7538/100000  
55/63 [=====>...] - ETA: 0s - loss: 5.8569e-04Epoch 07537:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 5.5440e-04 -  
val\_loss: 4.3785e-04  
Epoch 7539/100000  
63/63 [=====] - 0s 3ms/step - loss: 4.9725e-04 -  
val\_loss: 6.4985e-04  
Epoch 7540/100000  
63/63 [=====] - 0s 4ms/step - loss: 5.5573e-04 -  
val\_loss: 5.9418e-04  
Epoch 7541/100000  
63/63 [=====] - 0s 3ms/step - loss: 6.4253e-04 -  
val\_loss: 6.8399e-04  
Epoch 7542/100000  
58/63 [=====>...] - ETA: 0s - loss: 5.2038e-04Epoch 07541:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 5.3109e-04 -  
val\_loss: 3.0160e-04  
Epoch 7543/100000  
53/63 [=====>...] - ETA: 0s - loss: 6.5395e-04Epoch 07542:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 6.1397e-04 -  
val\_loss: 2.5062e-04  
Epoch 7544/100000  
47/63 [=====>...] - ETA: 0s - loss: 4.1738e-04Epoch 07543:  
early stopping THR

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63/63 [=====] - 0s 4ms/step - loss: 4.5818e-04 -
val_loss: 3.0161e-04
Epoch 7545/100000
63/63 [=====] - 0s 4ms/step - loss: 5.3684e-04 -
val_loss: 7.1500e-04
Epoch 7546/100000
63/63 [=====] - 0s 4ms/step - loss: 5.4912e-04 -
val_loss: 5.1106e-04
Epoch 7547/100000
63/63 [=====] - 0s 3ms/step - loss: 5.8771e-04 -
val_loss: 6.1878e-04
Epoch 7548/100000
57/63 [=====>...] - ETA: 0s - loss: 7.2210e-04Epoch 07547:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 7.0472e-04 -
val_loss: 4.8711e-04
Epoch 7549/100000
58/63 [=====>...] - ETA: 0s - loss: 5.8054e-04Epoch 07548:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 5.6353e-04 -
val_loss: 4.9311e-04
Epoch 7550/100000
56/63 [=====>...] - ETA: 0s - loss: 5.5096e-04Epoch 07549:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 5.3593e-04 -
val_loss: 4.8404e-04
Epoch 7551/100000
63/63 [=====] - 0s 3ms/step - loss: 7.2559e-04 -
val_loss: 7.9863e-04
Epoch 7552/100000
56/63 [=====>...] - ETA: 0s - loss: 4.5649e-04Epoch 07551:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.4779e-04 -
val_loss: 2.6362e-04
Epoch 7553/100000
58/63 [=====>...] - ETA: 0s - loss: 5.5218e-04Epoch 07552:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 5.2596e-04 -
val_loss: 3.4039e-04
Epoch 7554/100000
63/63 [=====] - 0s 3ms/step - loss: 5.1480e-04 -
val_loss: 5.3497e-04
Epoch 7555/100000
63/63 [=====] - 0s 4ms/step - loss: 4.6379e-04 -
val_loss: 5.3007e-04
Epoch 7556/100000
56/63 [=====>...] - ETA: 0s - loss: 4.8146e-04Epoch 07555:
early stopping THR

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63/63 [=====] - 0s 4ms/step - loss: 4.8963e-04 -
val_loss: 3.0885e-04
Epoch 7557/100000
55/63 [=====>...] - ETA: 0s - loss: 5.5966e-04Epoch 07556:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.6234e-04 -
val_loss: 3.7925e-04
Epoch 7558/100000
63/63 [=====] - 0s 3ms/step - loss: 3.9508e-04 -
val_loss: 7.3660e-04
Epoch 7559/100000
63/63 [=====] - 0s 4ms/step - loss: 3.7375e-04 -
val_loss: 5.1479e-04
Epoch 7560/100000
63/63 [=====] - 0s 4ms/step - loss: 6.3952e-04 -
val_loss: 6.0294e-04
Epoch 7561/100000
53/63 [=====>...] - ETA: 0s - loss: 6.1362e-04Epoch 07560:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 6.0251e-04 -
val_loss: 4.9923e-04
Epoch 7562/100000
49/63 [=====>...] - ETA: 0s - loss: 6.0051e-04Epoch 07561:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.5515e-04 -
val_loss: 3.4626e-04
Epoch 7563/100000
63/63 [=====] - 0s 4ms/step - loss: 5.4418e-04 -
val_loss: 7.2582e-04
Epoch 7564/100000
51/63 [=====>...] - ETA: 0s - loss: 5.4059e-04Epoch 07563:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.5057e-04 -
val_loss: 3.5364e-04
Epoch 7565/100000
63/63 [=====] - ETA: 0s - loss: 5.5601e-04Epoch 07564:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.5601e-04 -
val_loss: 4.0202e-04
Epoch 7566/100000
63/63 [=====] - 0s 4ms/step - loss: 5.1713e-04 -
val_loss: 5.9106e-04
Epoch 7567/100000
53/63 [=====>...] - ETA: 0s - loss: 6.4232e-04Epoch 07566:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.8441e-04 -
val_loss: 3.4650e-04
Epoch 7568/100000

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61/63 [=====>.] - ETA: 0s - loss: 5.0187e-04Epoch 07567:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.9761e-04 -
val_loss: 4.1419e-04
Epoch 7569/100000
63/63 [=====] - 0s 4ms/step - loss: 5.1535e-04 -
val_loss: 5.9940e-04
Epoch 7570/100000
63/63 [=====] - 0s 4ms/step - loss: 7.3987e-04 -
val_loss: 0.0010
Epoch 7571/100000
63/63 [=====] - ETA: 0s - loss: 4.8885e-04Epoch 07570:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.8885e-04 -
val_loss: 4.7074e-04
Epoch 7572/100000
53/63 [=====>...] - ETA: 0s - loss: 5.4528e-04Epoch 07571:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.5922e-04 -
val_loss: 3.4575e-04
Epoch 7573/100000
63/63 [=====] - 0s 4ms/step - loss: 5.9472e-04 -
val_loss: 5.3368e-04
Epoch 7574/100000
63/63 [=====] - 0s 5ms/step - loss: 5.2394e-04 -
val_loss: 5.3156e-04
Epoch 7575/100000
54/63 [=====>...] - ETA: 0s - loss: 6.3637e-04Epoch 07574:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 6.0985e-04 -
val_loss: 3.9645e-04
Epoch 7576/100000
50/63 [=====>...] - ETA: 0s - loss: 4.5666e-04Epoch 07575:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.2919e-04 -
val_loss: 3.5374e-04
Epoch 7577/100000
52/63 [=====>...] - ETA: 0s - loss: 4.5476e-04Epoch 07576:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.6256e-04 -
val_loss: 4.2680e-04
Epoch 7578/100000
63/63 [=====] - 0s 4ms/step - loss: 4.1671e-04 -
val_loss: 6.2680e-04
Epoch 7579/100000
56/63 [=====>...] - ETA: 0s - loss: 5.3462e-04Epoch 07578:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 5.2416e-04 -

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val_loss: 4.0526e-04
Epoch 7580/100000
63/63 [=====] - 0s 3ms/step - loss: 5.5766e-04 -
val_loss: 6.0884e-04
Epoch 7581/100000
56/63 [=====>...] - ETA: 0s - loss: 8.2054e-04Epoch 07580:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 8.0874e-04 -
val_loss: 4.0634e-04
Epoch 7582/100000
63/63 [=====] - 0s 3ms/step - loss: 6.6606e-04 -
val_loss: 5.9029e-04
Epoch 7583/100000
63/63 [=====] - 0s 3ms/step - loss: 5.7740e-04 -
val_loss: 5.6436e-04
Epoch 7584/100000
57/63 [=====>...] - ETA: 0s - loss: 5.8620e-04Epoch 07583:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 5.5849e-04 -
val_loss: 3.3568e-04
Epoch 7585/100000
55/63 [=====>...] - ETA: 0s - loss: 5.3916e-04Epoch 07584:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.2895e-04 -
val_loss: 4.6564e-04
Epoch 7586/100000
43/63 [=====>...] - ETA: 0s - loss: 5.9375e-04Epoch 07585:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 5.7863e-04 -
val_loss: 3.5811e-04
Epoch 7587/100000
63/63 [=====] - 0s 4ms/step - loss: 5.5524e-04 -
val_loss: 7.8588e-04
Epoch 7588/100000
62/63 [=====>.] - ETA: 0s - loss: 4.2375e-04Epoch 07587:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 4.2268e-04 -
val_loss: 2.8408e-04
Epoch 7589/100000
57/63 [=====>...] - ETA: 0s - loss: 5.1915e-04Epoch 07588:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.9967e-04 -
val_loss: 4.3627e-04
Epoch 7590/100000
63/63 [=====] - 0s 4ms/step - loss: 5.1826e-04 -
val_loss: 5.1463e-04
Epoch 7591/100000
63/63 [=====] - 0s 4ms/step - loss: 5.4516e-04 -

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val_loss: 6.2992e-04
Epoch 7592/100000
43/63 [=====>...] - ETA: 0s - loss: 7.1153e-04Epoch 07591:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 6.4024e-04 -
val_loss: 4.9965e-04
Epoch 7593/100000
63/63 [=====] - 0s 4ms/step - loss: 5.5213e-04 -
val_loss: 6.2631e-04
Epoch 7594/100000
63/63 [=====] - 0s 3ms/step - loss: 5.9136e-04 -
val_loss: 6.5556e-04
Epoch 7595/100000
63/63 [=====] - 0s 4ms/step - loss: 6.1785e-04 -
val_loss: 0.0017
Epoch 7596/100000
63/63 [=====] - 0s 4ms/step - loss: 6.6225e-04 -
val_loss: 0.0015
Epoch 7597/100000
46/63 [=====>...] - ETA: 0s - loss: 6.4149e-04Epoch 07596:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.6062e-04 -
val_loss: 2.4318e-04
Epoch 7598/100000
63/63 [=====] - 0s 4ms/step - loss: 3.5298e-04 -
val_loss: 8.3649e-04
Epoch 7599/100000
63/63 [=====] - 0s 3ms/step - loss: 5.6540e-04 -
val_loss: 5.8656e-04
Epoch 7600/100000
51/63 [=====>...] - ETA: 0s - loss: 5.8037e-04Epoch 07599:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 6.0851e-04 -
val_loss: 4.6087e-04
Epoch 7601/100000
63/63 [=====] - 0s 4ms/step - loss: 6.7837e-04 -
val_loss: 5.8040e-04
Epoch 7602/100000
63/63 [=====] - 0s 4ms/step - loss: 7.4416e-04 -
val_loss: 5.5863e-04
Epoch 7603/100000
58/63 [=====>...] - ETA: 0s - loss: 5.3961e-04Epoch 07602:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.2850e-04 -
val_loss: 4.2573e-04
Epoch 7604/100000
63/63 [=====] - 0s 4ms/step - loss: 5.5268e-04 -
val_loss: 6.3784e-04

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Epoch 7605/100000
63/63 [=====] - 0s 3ms/step - loss: 7.2749e-04 -
val_loss: 7.6820e-04
Epoch 7606/100000
63/63 [=====] - 0s 4ms/step - loss: 8.4388e-04 -
val_loss: 5.4128e-04
Epoch 7607/100000
59/63 [=====>...] - ETA: 0s - loss: 4.9332e-04Epoch 07606:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 5.2610e-04 -
val_loss: 4.3259e-04
Epoch 7608/100000
63/63 [=====] - 0s 4ms/step - loss: 5.8669e-04 -
val_loss: 6.9464e-04
Epoch 7609/100000
63/63 [=====] - 0s 5ms/step - loss: 4.8154e-04 -
val_loss: 5.0564e-04
Epoch 7610/100000
59/63 [=====>...] - ETA: 0s - loss: 6.9537e-04Epoch 07609:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 6.7239e-04 -
val_loss: 2.5430e-04
Epoch 7611/100000
63/63 [=====] - 0s 3ms/step - loss: 5.9079e-04 -
val_loss: 7.3190e-04
Epoch 7612/100000
55/63 [=====>...] - ETA: 0s - loss: 3.7476e-04Epoch 07611:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.1146e-04 -
val_loss: 4.3690e-04
Epoch 7613/100000
63/63 [=====] - 0s 4ms/step - loss: 4.8571e-04 -
val_loss: 7.5016e-04
Epoch 7614/100000
63/63 [=====] - 0s 3ms/step - loss: 4.5020e-04 -
val_loss: 7.1559e-04
Epoch 7615/100000
63/63 [=====] - 0s 4ms/step - loss: 5.2954e-04 -
val_loss: 0.0010
Epoch 7616/100000
63/63 [=====] - 0s 4ms/step - loss: 6.9541e-04 -
val_loss: 6.1323e-04
Epoch 7617/100000
63/63 [=====] - 0s 4ms/step - loss: 4.8112e-04 -
val_loss: 8.1349e-04
Epoch 7618/100000
58/63 [=====>...] - ETA: 0s - loss: 4.4737e-04Epoch 07617:
early stopping THR

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63/63 [=====] - 0s 4ms/step - loss: 4.6906e-04 -
val_loss: 4.7958e-04
Epoch 7619/100000
63/63 [=====] - 0s 4ms/step - loss: 4.5258e-04 -
val_loss: 5.8277e-04
Epoch 7620/100000
63/63 [=====] - 0s 4ms/step - loss: 5.2309e-04 -
val_loss: 6.6200e-04
Epoch 7621/100000
63/63 [=====] - 0s 4ms/step - loss: 6.0649e-04 -
val_loss: 6.5512e-04
Epoch 7622/100000
63/63 [=====] - 0s 5ms/step - loss: 6.2902e-04 -
val_loss: 5.7386e-04
Epoch 7623/100000
47/63 [=====>...] - ETA: 0s - loss: 4.5609e-04Epoch 07622:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.9564e-04 -
val_loss: 4.4129e-04
Epoch 7624/100000
63/63 [=====] - ETA: 0s - loss: 4.6721e-04Epoch 07623:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.6721e-04 -
val_loss: 3.6667e-04
Epoch 7625/100000
63/63 [=====] - 0s 4ms/step - loss: 5.6305e-04 -
val_loss: 6.3572e-04
Epoch 7626/100000
63/63 [=====] - 0s 4ms/step - loss: 5.4244e-04 -
val_loss: 7.0808e-04
Epoch 7627/100000
63/63 [=====] - 0s 4ms/step - loss: 4.1521e-04 -
val_loss: 5.5967e-04
Epoch 7628/100000
63/63 [=====] - 0s 4ms/step - loss: 4.0094e-04 -
val_loss: 9.3994e-04
Epoch 7629/100000
63/63 [=====] - 0s 4ms/step - loss: 7.2252e-04 -
val_loss: 5.8957e-04
Epoch 7630/100000
60/63 [=====>...] - ETA: 0s - loss: 5.7668e-04Epoch 07629:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.6265e-04 -
val_loss: 4.7442e-04
Epoch 7631/100000
57/63 [=====>...] - ETA: 0s - loss: 6.2797e-04Epoch 07630:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 6.1842e-04 -

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val_loss: 4.9933e-04
Epoch 7632/100000
63/63 [=====] - 0s 4ms/step - loss: 6.1817e-04 -
val_loss: 5.7217e-04
Epoch 7633/100000
62/63 [=====>.] - ETA: 0s - loss: 4.2316e-04Epoch 07632:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 4.2151e-04 -
val_loss: 3.8312e-04
Epoch 7634/100000
63/63 [=====] - 0s 4ms/step - loss: 5.4092e-04 -
val_loss: 9.4200e-04
Epoch 7635/100000
60/63 [=====>..] - ETA: 0s - loss: 5.7414e-04Epoch 07634:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.6417e-04 -
val_loss: 4.2576e-04
Epoch 7636/100000
63/63 [=====] - 0s 4ms/step - loss: 4.4234e-04 -
val_loss: 8.3794e-04
Epoch 7637/100000
63/63 [=====] - 0s 4ms/step - loss: 6.3030e-04 -
val_loss: 9.6168e-04
Epoch 7638/100000
63/63 [=====] - 0s 4ms/step - loss: 6.0032e-04 -
val_loss: 6.8750e-04
Epoch 7639/100000
54/63 [=====>...] - ETA: 0s - loss: 6.3837e-04Epoch 07638:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 6.2145e-04 -
val_loss: 4.0025e-04
Epoch 7640/100000
63/63 [=====] - 0s 3ms/step - loss: 5.5395e-04 -
val_loss: 5.7977e-04
Epoch 7641/100000
63/63 [=====] - 0s 3ms/step - loss: 6.6189e-04 -
val_loss: 0.0015
Epoch 7642/100000
63/63 [=====] - 0s 3ms/step - loss: 7.2695e-04 -
val_loss: 6.9182e-04
Epoch 7643/100000
63/63 [=====] - 0s 3ms/step - loss: 5.4370e-04 -
val_loss: 6.5145e-04
Epoch 7644/100000
63/63 [=====] - 0s 3ms/step - loss: 5.3476e-04 -
val_loss: 7.4008e-04
Epoch 7645/100000
52/63 [=====>...] - ETA: 0s - loss: 6.3499e-04Epoch 07644:

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early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.9991e-04 -
val_loss: 4.8641e-04
Epoch 7646/100000
63/63 [=====] - 0s 3ms/step - loss: 4.7173e-04 -
val_loss: 7.3657e-04
Epoch 7647/100000
63/63 [=====] - 0s 3ms/step - loss: 7.3540e-04 -
val_loss: 6.8825e-04
Epoch 7648/100000
63/63 [=====] - 0s 4ms/step - loss: 6.8624e-04 -
val_loss: 8.7552e-04
Epoch 7649/100000
63/63 [=====] - 0s 4ms/step - loss: 6.5524e-04 -
val_loss: 0.0013
Epoch 7650/100000
63/63 [=====] - 0s 4ms/step - loss: 5.8844e-04 -
val_loss: 6.4193e-04
Epoch 7651/100000
63/63 [=====] - 0s 4ms/step - loss: 5.4514e-04 -
val_loss: 6.1882e-04
Epoch 7652/100000
63/63 [=====] - 0s 4ms/step - loss: 5.1258e-04 -
val_loss: 5.4663e-04
Epoch 7653/100000
63/63 [=====] - 0s 4ms/step - loss: 6.8743e-04 -
val_loss: 6.0030e-04
Epoch 7654/100000
63/63 [=====] - 0s 4ms/step - loss: 5.3532e-04 -
val_loss: 8.5612e-04
Epoch 7655/100000
63/63 [=====] - 0s 5ms/step - loss: 8.6057e-04 -
val_loss: 8.1718e-04
Epoch 7656/100000
63/63 [=====] - 0s 4ms/step - loss: 8.4546e-04 -
val_loss: 7.4612e-04
Epoch 7657/100000
63/63 [=====] - 0s 4ms/step - loss: 9.0030e-04 -
val_loss: 9.2967e-04
Epoch 7658/100000
63/63 [=====] - 0s 4ms/step - loss: 7.5765e-04 -
val_loss: 7.9181e-04
Epoch 7659/100000
63/63 [=====] - 0s 4ms/step - loss: 7.3640e-04 -
val_loss: 6.1661e-04
Epoch 7660/100000
63/63 [=====] - 0s 4ms/step - loss: 7.3731e-04 -
val_loss: 7.4752e-04

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Epoch 7661/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.2064e-04 -  
val\_loss: 6.3999e-04

Epoch 7662/100000  
63/63 [=====] - 0s 3ms/step - loss: 6.8165e-04 -  
val\_loss: 5.4559e-04

Epoch 7663/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss:  
7.1943e-04

Epoch 7664/100000  
63/63 [=====] - 0s 4ms/step - loss: 7.7146e-04 -  
val\_loss: 6.5059e-04

Epoch 7665/100000  
63/63 [=====] - 0s 4ms/step - loss: 7.6923e-04 -  
val\_loss: 6.2461e-04

Epoch 7666/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.7117e-04 -  
val\_loss: 5.1739e-04

Epoch 7667/100000  
63/63 [=====] - 0s 3ms/step - loss: 7.0889e-04 -  
val\_loss: 6.3799e-04

Epoch 7668/100000  
63/63 [=====] - 0s 3ms/step - loss: 7.8698e-04 -  
val\_loss: 0.0011

Epoch 7669/100000  
63/63 [=====] - 0s 4ms/step - loss: 7.6093e-04 -  
val\_loss: 0.0011

Epoch 7670/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0016 - val\_loss:  
0.0024

Epoch 7671/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0010 - val\_loss:  
5.8301e-04

Epoch 7672/100000  
63/63 [=====] - 0s 4ms/step - loss: 7.5235e-04 -  
val\_loss: 5.7543e-04

Epoch 7673/100000  
63/63 [=====] - 0s 4ms/step - loss: 6.7890e-04 -  
val\_loss: 5.3407e-04

Epoch 7674/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.1669e-04 -  
val\_loss: 0.0018

Epoch 7675/100000  
63/63 [=====] - 0s 4ms/step - loss: 6.3682e-04 -  
val\_loss: 5.2780e-04

Epoch 7676/100000  
63/63 [=====] - 0s 4ms/step - loss: 6.9640e-04 -  
val\_loss: 5.7824e-04



Epoch 7677/100000  
63/63 [=====] - 0s 3ms/step - loss: 6.9127e-04 -  
val\_loss: 7.9550e-04  
Epoch 7678/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.5243e-04 -  
val\_loss: 6.9392e-04  
Epoch 7679/100000  
63/63 [=====] - 0s 4ms/step - loss: 8.9942e-04 -  
val\_loss: 8.3401e-04  
Epoch 7680/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0015 - val\_loss:  
0.0011  
Epoch 7681/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val\_loss:  
7.6913e-04  
Epoch 7682/100000  
63/63 [=====] - 0s 4ms/step - loss: 8.8870e-04 -  
val\_loss: 5.9266e-04  
Epoch 7683/100000  
56/63 [=====>...] - ETA: 0s - loss: 6.5343e-04Epoch 07682:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 6.3647e-04 -  
val\_loss: 4.9396e-04  
Epoch 7684/100000  
63/63 [=====] - 0s 4ms/step - loss: 6.6779e-04 -  
val\_loss: 5.6267e-04  
Epoch 7685/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.3200e-04 -  
val\_loss: 7.0213e-04  
Epoch 7686/100000  
63/63 [=====] - 0s 4ms/step - loss: 8.3294e-04 -  
val\_loss: 7.0182e-04  
Epoch 7687/100000  
63/63 [=====] - 0s 3ms/step - loss: 6.8021e-04 -  
val\_loss: 5.0705e-04  
Epoch 7688/100000  
61/63 [=====>.] - ETA: 0s - loss: 6.6556e-04Epoch 07687:  
early stopping THR  
63/63 [=====] - 0s 3ms/step - loss: 6.6450e-04 -  
val\_loss: 3.8064e-04  
Epoch 7689/100000  
63/63 [=====] - 0s 4ms/step - loss: 5.5652e-04 -  
val\_loss: 5.6200e-04  
Epoch 7690/100000  
57/63 [=====>...] - ETA: 0s - loss: 6.6431e-04Epoch 07689:  
early stopping THR  
63/63 [=====] - 0s 3ms/step - loss: 6.6554e-04 -  
val\_loss: 3.9405e-04

Epoch 7691/100000  
61/63 [=====>.] - ETA: 0s - loss: 5.6435e-04Epoch 07690:  
early stopping THR  
63/63 [=====] - 0s 3ms/step - loss: 5.5953e-04 -  
val\_loss: 4.5688e-04  
Epoch 7692/100000  
63/63 [=====] - ETA: 0s - loss: 4.7076e-04Epoch 07691:  
early stopping THR  
63/63 [=====] - 0s 3ms/step - loss: 4.7076e-04 -  
val\_loss: 3.2118e-04  
Epoch 7693/100000  
63/63 [=====] - 0s 3ms/step - loss: 3.9965e-04 -  
val\_loss: 5.1578e-04  
Epoch 7694/100000  
62/63 [=====>.] - ETA: 0s - loss: 5.8012e-04Epoch 07693:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 5.7724e-04 -  
val\_loss: 4.1346e-04  
Epoch 7695/100000  
63/63 [=====] - 0s 3ms/step - loss: 4.4671e-04 -  
val\_loss: 5.3843e-04  
Epoch 7696/100000  
63/63 [=====] - 0s 4ms/step - loss: 3.7978e-04 -  
val\_loss: 6.0404e-04  
Epoch 7697/100000  
63/63 [=====] - 0s 3ms/step - loss: 6.2412e-04 -  
val\_loss: 9.3216e-04  
Epoch 7698/100000  
63/63 [=====] - 0s 4ms/step - loss: 5.6257e-04 -  
val\_loss: 5.4928e-04  
Epoch 7699/100000  
61/63 [=====>.] - ETA: 0s - loss: 4.5626e-04Epoch 07698:  
early stopping THR  
63/63 [=====] - 0s 3ms/step - loss: 4.5843e-04 -  
val\_loss: 4.7861e-04  
Epoch 7700/100000  
61/63 [=====>.] - ETA: 0s - loss: 4.7443e-04Epoch 07699:  
early stopping THR  
63/63 [=====] - 0s 3ms/step - loss: 4.7231e-04 -  
val\_loss: 4.3438e-04  
Epoch 7701/100000  
63/63 [=====] - 0s 4ms/step - loss: 5.4800e-04 -  
val\_loss: 5.2438e-04  
Epoch 7702/100000  
51/63 [=====>...] - ETA: 0s - loss: 4.3092e-04Epoch 07701:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 4.5949e-04 -  
val\_loss: 4.7770e-04

Epoch 7703/100000  
63/63 [=====] - 0s 3ms/step - loss: 6.4020e-04 -  
val\_loss: 8.7744e-04  
Epoch 7704/100000  
60/63 [=====>..] - ETA: 0s - loss: 5.1185e-04Epoch 07703:  
early stopping THR  
63/63 [=====] - 0s 3ms/step - loss: 5.0440e-04 -  
val\_loss: 4.6120e-04  
Epoch 7705/100000  
55/63 [=====>...] - ETA: 0s - loss: 5.0226e-04Epoch 07704:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 5.0348e-04 -  
val\_loss: 4.0172e-04  
Epoch 7706/100000  
63/63 [=====] - 0s 4ms/step - loss: 6.7591e-04 -  
val\_loss: 6.3579e-04  
Epoch 7707/100000  
63/63 [=====] - 0s 4ms/step - loss: 5.5748e-04 -  
val\_loss: 6.4008e-04  
Epoch 7708/100000  
63/63 [=====] - 0s 4ms/step - loss: 7.2525e-04 -  
val\_loss: 0.0011  
Epoch 7709/100000  
63/63 [=====] - 0s 4ms/step - loss: 7.8699e-04 -  
val\_loss: 7.6951e-04  
Epoch 7710/100000  
63/63 [=====] - 0s 4ms/step - loss: 7.3299e-04 -  
val\_loss: 5.4992e-04  
Epoch 7711/100000  
50/63 [=====>...] - ETA: 0s - loss: 6.9984e-04Epoch 07710:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 6.8157e-04 -  
val\_loss: 4.4337e-04  
Epoch 7712/100000  
54/63 [=====>...] - ETA: 0s - loss: 6.5123e-04Epoch 07711:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 6.1586e-04 -  
val\_loss: 4.2620e-04  
Epoch 7713/100000  
47/63 [=====>...] - ETA: 0s - loss: 5.7939e-04Epoch 07712:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 6.2156e-04 -  
val\_loss: 4.4733e-04  
Epoch 7714/100000  
50/63 [=====>...] - ETA: 0s - loss: 5.6642e-04Epoch 07713:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 5.3784e-04 -  
val\_loss: 3.9990e-04

Epoch 7715/100000  
61/63 [=====>.] - ETA: 0s - loss: 8.3806e-04Epoch 07714:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 8.3180e-04 -  
val\_loss: 4.7831e-04  
Epoch 7716/100000  
59/63 [=====>..] - ETA: 0s - loss: 6.0461e-04Epoch 07715:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 6.1950e-04 -  
val\_loss: 3.7547e-04  
Epoch 7717/100000  
63/63 [=====] - 0s 4ms/step - loss: 5.1931e-04 -  
val\_loss: 7.1575e-04  
Epoch 7718/100000  
63/63 [=====] - 0s 4ms/step - loss: 4.5872e-04 -  
val\_loss: 6.9394e-04  
Epoch 7719/100000  
62/63 [=====>.] - ETA: 0s - loss: 4.6880e-04Epoch 07718:  
early stopping THR  
63/63 [=====] - 0s 3ms/step - loss: 4.6768e-04 -  
val\_loss: 3.7934e-04  
Epoch 7720/100000  
63/63 [=====] - ETA: 0s - loss: 5.6967e-04Epoch 07719:  
early stopping THR  
63/63 [=====] - 0s 3ms/step - loss: 5.6967e-04 -  
val\_loss: 4.2812e-04  
Epoch 7721/100000  
59/63 [=====>..] - ETA: 0s - loss: 3.5267e-04Epoch 07720:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 3.4580e-04 -  
val\_loss: 4.4006e-04  
Epoch 7722/100000  
63/63 [=====] - 0s 4ms/step - loss: 5.2191e-04 -  
val\_loss: 6.8776e-04  
Epoch 7723/100000  
63/63 [=====] - ETA: 0s - loss: 4.3460e-04Epoch 07722:  
early stopping THR  
63/63 [=====] - 0s 3ms/step - loss: 4.3460e-04 -  
val\_loss: 4.4732e-04  
Epoch 7724/100000  
63/63 [=====] - 0s 4ms/step - loss: 5.7902e-04 -  
val\_loss: 5.5343e-04  
Epoch 7725/100000  
63/63 [=====] - 0s 4ms/step - loss: 4.8444e-04 -  
val\_loss: 5.0897e-04  
Epoch 7726/100000  
63/63 [=====] - 0s 3ms/step - loss: 5.5716e-04 -  
val\_loss: 6.8887e-04

Epoch 7727/100000  
63/63 [=====] - 0s 3ms/step - loss: 4.2140e-04 -  
val\_loss: 5.0859e-04  
Epoch 7728/100000  
55/63 [=====>...] - ETA: 0s - loss: 5.1149e-04Epoch 07727:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 4.8457e-04 -  
val\_loss: 4.7033e-04  
Epoch 7729/100000  
63/63 [=====] - 0s 4ms/step - loss: 4.8496e-04 -  
val\_loss: 5.3192e-04  
Epoch 7730/100000  
63/63 [=====] - 0s 3ms/step - loss: 5.9900e-04 -  
val\_loss: 5.6857e-04  
Epoch 7731/100000  
57/63 [=====>...] - ETA: 0s - loss: 4.3273e-04Epoch 07730:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 4.2284e-04 -  
val\_loss: 4.6570e-04  
Epoch 7732/100000  
63/63 [=====] - 0s 3ms/step - loss: 5.2815e-04 -  
val\_loss: 5.9616e-04  
Epoch 7733/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.0174e-04 -  
val\_loss: 8.5119e-04  
Epoch 7734/100000  
49/63 [=====>...] - ETA: 0s - loss: 5.2748e-04Epoch 07733:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 5.3366e-04 -  
val\_loss: 4.1369e-04  
Epoch 7735/100000  
53/63 [=====>...] - ETA: 0s - loss: 5.5796e-04Epoch 07734:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 5.5442e-04 -  
val\_loss: 2.6569e-04  
Epoch 7736/100000  
63/63 [=====] - 0s 3ms/step - loss: 5.7856e-04 -  
val\_loss: 5.8106e-04  
Epoch 7737/100000  
63/63 [=====] - 0s 4ms/step - loss: 7.7071e-04 -  
val\_loss: 5.8873e-04  
Epoch 7738/100000  
54/63 [=====>...] - ETA: 0s - loss: 6.8100e-04Epoch 07737:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 6.6464e-04 -  
val\_loss: 3.8732e-04  
Epoch 7739/100000  
59/63 [=====>..] - ETA: 0s - loss: 5.5596e-04Epoch 07738:

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early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 5.5632e-04 -
val_loss: 4.7195e-04
Epoch 7740/100000
63/63 [=====] - 0s 4ms/step - loss: 6.8238e-04 -
val_loss: 6.9294e-04
Epoch 7741/100000
57/63 [=====>...] - ETA: 0s - loss: 7.0771e-04Epoch 07740:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 6.7373e-04 -
val_loss: 4.2483e-04
Epoch 7742/100000
63/63 [=====] - 0s 4ms/step - loss: 5.9233e-04 -
val_loss: 8.0532e-04
Epoch 7743/100000
55/63 [=====>...] - ETA: 0s - loss: 7.1314e-04Epoch 07742:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 6.9343e-04 -
val_loss: 4.0815e-04
Epoch 7744/100000
63/63 [=====] - 0s 4ms/step - loss: 6.7388e-04 -
val_loss: 5.4202e-04
Epoch 7745/100000
55/63 [=====>...] - ETA: 0s - loss: 5.3200e-04Epoch 07744:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.0226e-04 -
val_loss: 2.8463e-04
Epoch 7746/100000
60/63 [=====>..] - ETA: 0s - loss: 4.5528e-04Epoch 07745:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.4939e-04 -
val_loss: 4.9861e-04
Epoch 7747/100000
62/63 [=====>.] - ETA: 0s - loss: 5.3522e-04Epoch 07746:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.3681e-04 -
val_loss: 3.7653e-04
Epoch 7748/100000
63/63 [=====] - 0s 3ms/step - loss: 4.9374e-04 -
val_loss: 5.2694e-04
Epoch 7749/100000
63/63 [=====] - ETA: 0s - loss: 5.6093e-04Epoch 07748:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 5.6093e-04 -
val_loss: 4.8279e-04
Epoch 7750/100000
63/63 [=====] - 0s 4ms/step - loss: 5.9990e-04 -
val_loss: 8.5282e-04

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Epoch 7751/100000  
63/63 [=====] - 0s 3ms/step - loss: 5.2563e-04 -  
val\_loss: 8.4097e-04  
Epoch 7752/100000  
63/63 [=====] - 0s 4ms/step - loss: 5.2335e-04 -  
val\_loss: 7.5517e-04  
Epoch 7753/100000  
42/63 [=====>...] - ETA: 0s - loss: 6.3276e-04Epoch 07752:  
early stopping THR  
63/63 [=====] - 0s 3ms/step - loss: 6.3758e-04 -  
val\_loss: 4.4848e-04  
Epoch 7754/100000  
63/63 [=====] - 0s 3ms/step - loss: 6.1720e-04 -  
val\_loss: 6.0025e-04  
Epoch 7755/100000  
63/63 [=====] - 0s 4ms/step - loss: 5.3092e-04 -  
val\_loss: 5.4090e-04  
Epoch 7756/100000  
63/63 [=====] - 0s 3ms/step - loss: 7.3303e-04 -  
val\_loss: 5.0753e-04  
Epoch 7757/100000  
58/63 [=====>...] - ETA: 0s - loss: 5.9723e-04Epoch 07756:  
early stopping THR  
63/63 [=====] - 0s 3ms/step - loss: 5.7066e-04 -  
val\_loss: 3.3438e-04  
Epoch 7758/100000  
53/63 [=====>...] - ETA: 0s - loss: 3.9577e-04Epoch 07757:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 3.9153e-04 -  
val\_loss: 3.3833e-04  
Epoch 7759/100000  
56/63 [=====>...] - ETA: 0s - loss: 6.3767e-04Epoch 07758:  
early stopping THR  
63/63 [=====] - 0s 3ms/step - loss: 6.0675e-04 -  
val\_loss: 4.2291e-04  
Epoch 7760/100000  
53/63 [=====>...] - ETA: 0s - loss: 4.4684e-04Epoch 07759:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 4.4693e-04 -  
val\_loss: 4.0970e-04  
Epoch 7761/100000  
55/63 [=====>...] - ETA: 0s - loss: 5.1112e-04Epoch 07760:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 4.9699e-04 -  
val\_loss: 4.5074e-04  
Epoch 7762/100000  
51/63 [=====>...] - ETA: 0s - loss: 6.4066e-04Epoch 07761:  
early stopping THR

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63/63 [=====] - 0s 4ms/step - loss: 6.2439e-04 -
val_loss: 4.7587e-04
Epoch 7763/100000
56/63 [=====>...] - ETA: 0s - loss: 7.4286e-04Epoch 07762:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 7.3300e-04 -
val_loss: 4.9386e-04
Epoch 7764/100000
63/63 [=====] - 0s 4ms/step - loss: 4.3679e-04 -
val_loss: 6.8195e-04
Epoch 7765/100000
63/63 [=====] - 0s 4ms/step - loss: 5.9449e-04 -
val_loss: 6.1211e-04
Epoch 7766/100000
63/63 [=====] - 0s 3ms/step - loss: 5.9495e-04 -
val_loss: 8.8797e-04
Epoch 7767/100000
55/63 [=====>...] - ETA: 0s - loss: 5.8894e-04Epoch 07766:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 6.4338e-04 -
val_loss: 4.4821e-04
Epoch 7768/100000
55/63 [=====>...] - ETA: 0s - loss: 6.8775e-04Epoch 07767:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 6.8205e-04 -
val_loss: 3.8480e-04
Epoch 7769/100000
63/63 [=====] - ETA: 0s - loss: 4.7629e-04Epoch 07768:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 4.7629e-04 -
val_loss: 3.3826e-04
Epoch 7770/100000
63/63 [=====] - 0s 3ms/step - loss: 6.1908e-04 -
val_loss: 6.9364e-04
Epoch 7771/100000
63/63 [=====] - 0s 3ms/step - loss: 5.4371e-04 -
val_loss: 6.0211e-04
Epoch 7772/100000
63/63 [=====] - 0s 4ms/step - loss: 4.0229e-04 -
val_loss: 5.5772e-04
Epoch 7773/100000
56/63 [=====>...] - ETA: 0s - loss: 4.6611e-04Epoch 07772:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.4193e-04 -
val_loss: 4.0354e-04
Epoch 7774/100000
63/63 [=====] - 0s 3ms/step - loss: 7.5599e-04 -
val_loss: 8.6319e-04

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Epoch 7775/100000  
63/63 [=====] - 0s 4ms/step - loss: 8.8597e-04 -  
val\_loss: 6.7476e-04  
Epoch 7776/100000  
55/63 [=====>...] - ETA: 0s - loss: 5.4301e-04Epoch 07775:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 5.1121e-04 -  
val\_loss: 4.7435e-04  
Epoch 7777/100000  
58/63 [=====>...] - ETA: 0s - loss: 4.0252e-04Epoch 07776:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 4.4978e-04 -  
val\_loss: 4.9746e-04  
Epoch 7778/100000  
63/63 [=====] - 0s 4ms/step - loss: 6.0207e-04 -  
val\_loss: 5.3175e-04  
Epoch 7779/100000  
63/63 [=====] - 0s 4ms/step - loss: 5.3103e-04 -  
val\_loss: 7.0040e-04  
Epoch 7780/100000  
63/63 [=====] - 0s 4ms/step - loss: 4.5245e-04 -  
val\_loss: 7.2064e-04  
Epoch 7781/100000  
63/63 [=====] - 0s 3ms/step - loss: 5.2045e-04 -  
val\_loss: 5.7957e-04  
Epoch 7782/100000  
61/63 [=====>.] - ETA: 0s - loss: 5.2084e-04Epoch 07781:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 5.1760e-04 -  
val\_loss: 4.4521e-04  
Epoch 7783/100000  
54/63 [=====>...] - ETA: 0s - loss: 4.6070e-04Epoch 07782:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 4.6502e-04 -  
val\_loss: 4.3740e-04  
Epoch 7784/100000  
61/63 [=====>.] - ETA: 0s - loss: 6.4583e-04Epoch 07783:  
early stopping THR  
63/63 [=====] - 0s 3ms/step - loss: 6.3654e-04 -  
val\_loss: 3.4927e-04  
Epoch 7785/100000  
44/63 [=====>...] - ETA: 0s - loss: 4.3860e-04Epoch 07784:  
early stopping THR  
63/63 [=====] - 0s 3ms/step - loss: 4.4545e-04 -  
val\_loss: 4.0787e-04  
Epoch 7786/100000  
63/63 [=====] - 0s 3ms/step - loss: 4.5625e-04 -  
val\_loss: 6.1971e-04

Epoch 7787/100000  
63/63 [=====] - 0s 3ms/step - loss: 5.1566e-04 -  
val\_loss: 5.1804e-04  
Epoch 7788/100000  
45/63 [=====>...] - ETA: 0s - loss: 7.8026e-04Epoch 07787:  
early stopping THR  
63/63 [=====] - 0s 3ms/step - loss: 6.7995e-04 -  
val\_loss: 3.8607e-04  
Epoch 7789/100000  
63/63 [=====] - 0s 4ms/step - loss: 9.5807e-04 -  
val\_loss: 8.7731e-04  
Epoch 7790/100000  
54/63 [=====>...] - ETA: 0s - loss: 5.8899e-04Epoch 07789:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 5.4873e-04 -  
val\_loss: 3.7415e-04  
Epoch 7791/100000  
54/63 [=====>...] - ETA: 0s - loss: 4.9146e-04Epoch 07790:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 4.5572e-04 -  
val\_loss: 3.6197e-04  
Epoch 7792/100000  
55/63 [=====>...] - ETA: 0s - loss: 4.9885e-04Epoch 07791:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 4.7489e-04 -  
val\_loss: 3.5849e-04  
Epoch 7793/100000  
52/63 [=====>...] - ETA: 0s - loss: 5.6553e-04Epoch 07792:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 5.5574e-04 -  
val\_loss: 4.6769e-04  
Epoch 7794/100000  
60/63 [=====>..] - ETA: 0s - loss: 4.5768e-04Epoch 07793:  
early stopping THR  
63/63 [=====] - 0s 3ms/step - loss: 4.7060e-04 -  
val\_loss: 4.7003e-04  
Epoch 7795/100000  
57/63 [=====>...] - ETA: 0s - loss: 4.5778e-04Epoch 07794:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 4.5361e-04 -  
val\_loss: 4.9918e-04  
Epoch 7796/100000  
63/63 [=====] - 0s 3ms/step - loss: 4.8853e-04 -  
val\_loss: 6.4174e-04  
Epoch 7797/100000  
63/63 [=====] - 0s 3ms/step - loss: 4.7278e-04 -  
val\_loss: 6.4410e-04  
Epoch 7798/100000

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63/63 [=====] - 0s 3ms/step - loss: 4.9598e-04 -
val_loss: 7.0767e-04
Epoch 7799/100000
63/63 [=====] - 0s 4ms/step - loss: 7.4751e-04 -
val_loss: 7.3278e-04
Epoch 7800/100000
63/63 [=====] - 0s 4ms/step - loss: 6.5649e-04 -
val_loss: 5.7023e-04
Epoch 7801/100000
58/63 [=====>...] - ETA: 0s - loss: 4.8624e-04Epoch 07800:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.8281e-04 -
val_loss: 4.7327e-04
Epoch 7802/100000
62/63 [=====>.] - ETA: 0s - loss: 4.9226e-04Epoch 07801:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 4.9085e-04 -
val_loss: 4.4669e-04
Epoch 7803/100000
56/63 [=====>...] - ETA: 0s - loss: 4.7811e-04Epoch 07802:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.5963e-04 -
val_loss: 4.4947e-04
Epoch 7804/100000
63/63 [=====] - 0s 3ms/step - loss: 4.5564e-04 -
val_loss: 5.6430e-04
Epoch 7805/100000
63/63 [=====] - 0s 3ms/step - loss: 4.6622e-04 -
val_loss: 5.4089e-04
Epoch 7806/100000
63/63 [=====] - ETA: 0s - loss: 6.0749e-04Epoch 07805:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 6.0749e-04 -
val_loss: 4.9188e-04
Epoch 7807/100000
56/63 [=====>...] - ETA: 0s - loss: 3.2891e-04Epoch 07806:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 3.4585e-04 -
val_loss: 4.3775e-04
Epoch 7808/100000
63/63 [=====] - 0s 4ms/step - loss: 5.1547e-04 -
val_loss: 5.7192e-04
Epoch 7809/100000
63/63 [=====] - 0s 4ms/step - loss: 3.8422e-04 -
val_loss: 5.6969e-04
Epoch 7810/100000
63/63 [=====] - 0s 4ms/step - loss: 5.1536e-04 -
val_loss: 6.4421e-04

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Epoch 7811/100000
63/63 [=====] - 0s 3ms/step - loss: 5.0977e-04 -
val_loss: 8.8904e-04
Epoch 7812/100000
51/63 [=====>...] - ETA: 0s - loss: 6.8305e-04Epoch 07811:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 6.3465e-04 -
val_loss: 4.6419e-04
Epoch 7813/100000
63/63 [=====] - 0s 3ms/step - loss: 4.9164e-04 -
val_loss: 5.2524e-04
Epoch 7814/100000
63/63 [=====] - 0s 4ms/step - loss: 4.4421e-04 -
val_loss: 6.3043e-04
Epoch 7815/100000
63/63 [=====] - 0s 4ms/step - loss: 5.8982e-04 -
val_loss: 5.0637e-04
Epoch 7816/100000
50/63 [=====>...] - ETA: 0s - loss: 3.8748e-04Epoch 07815:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 3.9056e-04 -
val_loss: 3.8329e-04
Epoch 7817/100000
59/63 [=====>..] - ETA: 0s - loss: 3.1787e-04Epoch 07816:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 3.2459e-04 -
val_loss: 4.4500e-04
Epoch 7818/100000
58/63 [=====>...] - ETA: 0s - loss: 5.2610e-04Epoch 07817:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 5.0803e-04 -
val_loss: 3.9018e-04
Epoch 7819/100000
56/63 [=====>...] - ETA: 0s - loss: 4.4947e-04Epoch 07818:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 4.3108e-04 -
val_loss: 4.6900e-04
Epoch 7820/100000
63/63 [=====] - 0s 4ms/step - loss: 3.7938e-04 -
val_loss: 6.9755e-04
Epoch 7821/100000
63/63 [=====] - 0s 3ms/step - loss: 6.0448e-04 -
val_loss: 5.6932e-04
Epoch 7822/100000
57/63 [=====>...] - ETA: 0s - loss: 4.9786e-04Epoch 07821:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 4.8286e-04 -
val_loss: 4.8519e-04

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Epoch 7823/100000  
42/63 [=====>...] - ETA: 0s - loss: 4.7538e-04Epoch 07822:  
early stopping THR  
63/63 [=====] - 0s 3ms/step - loss: 5.0493e-04 -  
val\_loss: 3.1409e-04  
Epoch 7824/100000  
51/63 [=====>...] - ETA: 0s - loss: 4.6610e-04Epoch 07823:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 4.3629e-04 -  
val\_loss: 4.5651e-04  
Epoch 7825/100000  
63/63 [=====] - 0s 3ms/step - loss: 5.6868e-04 -  
val\_loss: 5.8353e-04  
Epoch 7826/100000  
55/63 [=====>...] - ETA: 0s - loss: 5.3839e-04Epoch 07825:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 5.2289e-04 -  
val\_loss: 4.9613e-04  
Epoch 7827/100000  
59/63 [=====>..] - ETA: 0s - loss: 5.0757e-04Epoch 07826:  
early stopping THR  
63/63 [=====] - 0s 3ms/step - loss: 5.0307e-04 -  
val\_loss: 3.2737e-04  
Epoch 7828/100000  
59/63 [=====>..] - ETA: 0s - loss: 4.6122e-04Epoch 07827:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 4.4781e-04 -  
val\_loss: 3.6570e-04  
Epoch 7829/100000  
63/63 [=====] - 0s 4ms/step - loss: 4.4283e-04 -  
val\_loss: 6.2851e-04  
Epoch 7830/100000  
63/63 [=====] - 0s 3ms/step - loss: 5.1660e-04 -  
val\_loss: 7.4380e-04  
Epoch 7831/100000  
63/63 [=====] - 0s 3ms/step - loss: 4.7723e-04 -  
val\_loss: 5.9910e-04  
Epoch 7832/100000  
63/63 [=====] - 0s 3ms/step - loss: 6.4130e-04 -  
val\_loss: 7.5558e-04  
Epoch 7833/100000  
60/63 [=====>..] - ETA: 0s - loss: 0.0011 Epoch 07832:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val\_loss:  
4.2932e-04  
Epoch 7834/100000  
63/63 [=====] - 0s 4ms/step - loss: 6.7953e-04 -  
val\_loss: 6.2460e-04

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Epoch 7835/100000
63/63 [=====] - 0s 4ms/step - loss: 4.8414e-04 -
val_loss: 5.1807e-04
Epoch 7836/100000
63/63 [=====] - 0s 3ms/step - loss: 4.0498e-04 -
val_loss: 5.4457e-04
Epoch 7837/100000
60/63 [=====>...] - ETA: 0s - loss: 5.4674e-04Epoch 07836:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 5.4304e-04 -
val_loss: 2.6982e-04
Epoch 7838/100000
63/63 [=====] - 0s 4ms/step - loss: 3.6321e-04 -
val_loss: 6.5972e-04
Epoch 7839/100000
63/63 [=====] - 0s 4ms/step - loss: 5.1768e-04 -
val_loss: 5.5445e-04
Epoch 7840/100000
57/63 [=====>...] - ETA: 0s - loss: 4.5307e-04Epoch 07839:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 4.4672e-04 -
val_loss: 4.0492e-04
Epoch 7841/100000
63/63 [=====] - 0s 3ms/step - loss: 4.4331e-04 -
val_loss: 6.1202e-04
Epoch 7842/100000
54/63 [=====>...] - ETA: 0s - loss: 4.9713e-04Epoch 07841:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.7022e-04 -
val_loss: 4.1931e-04
Epoch 7843/100000
63/63 [=====] - 0s 3ms/step - loss: 4.3969e-04 -
val_loss: 5.3371e-04
Epoch 7844/100000
63/63 [=====] - 0s 4ms/step - loss: 4.6762e-04 -
val_loss: 5.3889e-04
Epoch 7845/100000
49/63 [=====>...] - ETA: 0s - loss: 3.8166e-04Epoch 07844:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 3.8329e-04 -
val_loss: 3.9638e-04
Epoch 7846/100000
54/63 [=====>...] - ETA: 0s - loss: 3.8600e-04Epoch 07845:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 3.7749e-04 -
val_loss: 4.7551e-04
Epoch 7847/100000
63/63 [=====] - 0s 4ms/step - loss: 6.6059e-04 -

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val_loss: 5.7874e-04
Epoch 7848/100000
55/63 [=====>...] - ETA: 0s - loss: 7.2207e-04Epoch 07847:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 7.3879e-04 -
val_loss: 4.9115e-04
Epoch 7849/100000
63/63 [=====] - 0s 4ms/step - loss: 4.7968e-04 -
val_loss: 6.6420e-04
Epoch 7850/100000
63/63 [=====] - 0s 4ms/step - loss: 3.5641e-04 -
val_loss: 5.8943e-04
Epoch 7851/100000
63/63 [=====] - 0s 4ms/step - loss: 5.8368e-04 -
val_loss: 5.4633e-04
Epoch 7852/100000
58/63 [=====>...] - ETA: 0s - loss: 4.1356e-04Epoch 07851:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 4.0866e-04 -
val_loss: 3.8791e-04
Epoch 7853/100000
63/63 [=====] - 0s 4ms/step - loss: 4.8787e-04 -
val_loss: 5.5871e-04
Epoch 7854/100000
63/63 [=====] - 0s 4ms/step - loss: 6.2645e-04 -
val_loss: 5.6141e-04
Epoch 7855/100000
57/63 [=====>...] - ETA: 0s - loss: 5.5256e-04Epoch 07854:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.3481e-04 -
val_loss: 3.2903e-04
Epoch 7856/100000
56/63 [=====>...] - ETA: 0s - loss: 5.5144e-04Epoch 07855:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.4708e-04 -
val_loss: 4.1596e-04
Epoch 7857/100000
55/63 [=====>...] - ETA: 0s - loss: 5.1372e-04Epoch 07856:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.0845e-04 -
val_loss: 4.3188e-04
Epoch 7858/100000
63/63 [=====] - 0s 4ms/step - loss: 5.0164e-04 -
val_loss: 6.4776e-04
Epoch 7859/100000
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val_loss:
7.6200e-04
Epoch 7860/100000

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63/63 [=====] - 0s 4ms/step - loss: 5.2191e-04 -
val_loss: 5.0073e-04
Epoch 7861/100000
63/63 [=====] - 0s 4ms/step - loss: 6.0984e-04 -
val_loss: 7.1058e-04
Epoch 7862/100000
63/63 [=====] - 0s 4ms/step - loss: 5.1842e-04 -
val_loss: 6.4458e-04
Epoch 7863/100000
55/63 [=====>...] - ETA: 0s - loss: 5.4028e-04Epoch 07862:
early stopping THR
63/63 [=====] - 0s 5ms/step - loss: 5.3464e-04 -
val_loss: 4.3182e-04
Epoch 7864/100000
45/63 [=====>...] - ETA: 0s - loss: 5.5584e-04Epoch 07863:
early stopping THR
63/63 [=====] - 0s 5ms/step - loss: 5.7236e-04 -
val_loss: 4.6949e-04
Epoch 7865/100000
63/63 [=====] - 0s 4ms/step - loss: 8.3671e-04 -
val_loss: 0.0019
Epoch 7866/100000
63/63 [=====] - 0s 3ms/step - loss: 9.9847e-04 -
val_loss: 0.0010
Epoch 7867/100000
63/63 [=====] - 0s 3ms/step - loss: 7.1466e-04 -
val_loss: 0.0011
Epoch 7868/100000
63/63 [=====] - 0s 3ms/step - loss: 7.4933e-04 -
val_loss: 5.3285e-04
Epoch 7869/100000
63/63 [=====] - 0s 4ms/step - loss: 7.9226e-04 -
val_loss: 7.9052e-04
Epoch 7870/100000
63/63 [=====] - 0s 3ms/step - loss: 8.2094e-04 -
val_loss: 7.6813e-04
Epoch 7871/100000
63/63 [=====] - 0s 4ms/step - loss: 7.2972e-04 -
val_loss: 5.2044e-04
Epoch 7872/100000
63/63 [=====] - 0s 4ms/step - loss: 7.5348e-04 -
val_loss: 5.3867e-04
Epoch 7873/100000
63/63 [=====] - 0s 4ms/step - loss: 7.7890e-04 -
val_loss: 5.2522e-04
Epoch 7874/100000
63/63 [=====] - 0s 4ms/step - loss: 6.2588e-04 -
val_loss: 7.1474e-04

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Epoch 7875/100000
63/63 [=====] - 0s 4ms/step - loss: 5.7093e-04 -
val_loss: 5.2013e-04
Epoch 7876/100000
63/63 [=====] - 0s 4ms/step - loss: 6.0576e-04 -
val_loss: 5.1030e-04
Epoch 7877/100000
63/63 [=====] - 0s 3ms/step - loss: 8.9249e-04 -
val_loss: 9.0844e-04
Epoch 7878/100000
63/63 [=====] - 0s 5ms/step - loss: 5.2758e-04 -
val_loss: 6.9262e-04
Epoch 7879/100000
62/63 [=====>.] - ETA: 0s - loss: 6.1386e-04Epoch 07878:
early stopping THR
63/63 [=====] - 0s 5ms/step - loss: 6.1176e-04 -
val_loss: 3.6150e-04
Epoch 7880/100000
63/63 [=====] - 0s 4ms/step - loss: 5.4524e-04 -
val_loss: 6.8348e-04
Epoch 7881/100000
55/63 [=====>...] - ETA: 0s - loss: 5.3570e-04Epoch 07880:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.3198e-04 -
val_loss: 4.1475e-04
Epoch 7882/100000
63/63 [=====] - 0s 3ms/step - loss: 6.3654e-04 -
val_loss: 5.3977e-04
Epoch 7883/100000
63/63 [=====] - 0s 4ms/step - loss: 6.0722e-04 -
val_loss: 6.1813e-04
Epoch 7884/100000
63/63 [=====] - 0s 4ms/step - loss: 6.9632e-04 -
val_loss: 5.3537e-04
Epoch 7885/100000
63/63 [=====] - 0s 4ms/step - loss: 6.1139e-04 -
val_loss: 5.5993e-04
Epoch 7886/100000
63/63 [=====] - 0s 3ms/step - loss: 7.1768e-04 -
val_loss: 5.4927e-04
Epoch 7887/100000
63/63 [=====] - 0s 3ms/step - loss: 6.8472e-04 -
val_loss: 5.4611e-04
Epoch 7888/100000
63/63 [=====] - 0s 4ms/step - loss: 8.1597e-04 -
val_loss: 6.7410e-04
Epoch 7889/100000
63/63 [=====] - 0s 4ms/step - loss: 0.0010 - val_loss:

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0.0015
Epoch 7890/100000
63/63 [=====] - 0s 4ms/step - loss: 0.0010 - val_loss:
9.3136e-04
Epoch 7891/100000
56/63 [=====>...] - ETA: 0s - loss: 9.1506e-04Epoch 07890:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 8.9558e-04 -
val_loss: 4.8376e-04
Epoch 7892/100000
63/63 [=====] - 0s 4ms/step - loss: 6.2891e-04 -
val_loss: 7.7047e-04
Epoch 7893/100000
52/63 [=====>...] - ETA: 0s - loss: 6.1831e-04Epoch 07892:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.9405e-04 -
val_loss: 3.6234e-04
Epoch 7894/100000
59/63 [=====>..] - ETA: 0s - loss: 5.3346e-04Epoch 07893:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.4739e-04 -
val_loss: 4.1385e-04
Epoch 7895/100000
63/63 [=====] - 0s 4ms/step - loss: 6.3110e-04 -
val_loss: 6.0052e-04
Epoch 7896/100000
63/63 [=====] - 0s 4ms/step - loss: 6.2708e-04 -
val_loss: 5.6405e-04
Epoch 7897/100000
63/63 [=====] - 0s 3ms/step - loss: 7.3453e-04 -
val_loss: 7.5669e-04
Epoch 7898/100000
63/63 [=====] - 0s 4ms/step - loss: 6.9035e-04 -
val_loss: 5.2221e-04
Epoch 7899/100000
63/63 [=====] - 0s 4ms/step - loss: 6.7808e-04 -
val_loss: 5.6858e-04
Epoch 7900/100000
54/63 [=====>...] - ETA: 0s - loss: 5.6298e-04Epoch 07899:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.4456e-04 -
val_loss: 4.4236e-04
Epoch 7901/100000
59/63 [=====>..] - ETA: 0s - loss: 5.2338e-04Epoch 07900:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 5.1662e-04 -
val_loss: 4.7869e-04
Epoch 7902/100000

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63/63 [=====] - 0s 3ms/step - loss: 6.7656e-04 -
val_loss: 7.0831e-04
Epoch 7903/100000
63/63 [=====] - 0s 3ms/step - loss: 5.9709e-04 -
val_loss: 5.8051e-04
Epoch 7904/100000
49/63 [=====>...] - ETA: 0s - loss: 5.5562e-04Epoch 07903:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.5940e-04 -
val_loss: 3.2495e-04
Epoch 7905/100000
63/63 [=====] - 0s 4ms/step - loss: 7.4331e-04 -
val_loss: 7.9812e-04
Epoch 7906/100000
63/63 [=====] - 0s 4ms/step - loss: 6.7646e-04 -
val_loss: 6.1001e-04
Epoch 7907/100000
57/63 [=====>...] - ETA: 0s - loss: 5.4249e-04Epoch 07906:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.4274e-04 -
val_loss: 3.5558e-04
Epoch 7908/100000
63/63 [=====] - 0s 4ms/step - loss: 7.8756e-04 -
val_loss: 6.6392e-04
Epoch 7909/100000
61/63 [=====>.] - ETA: 0s - loss: 6.1783e-04Epoch 07908:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 6.1151e-04 -
val_loss: 4.6820e-04
Epoch 7910/100000
63/63 [=====] - 0s 3ms/step - loss: 5.7895e-04 -
val_loss: 5.5020e-04
Epoch 7911/100000
63/63 [=====] - 0s 4ms/step - loss: 9.2068e-04 -
val_loss: 7.4128e-04
Epoch 7912/100000
63/63 [=====] - 0s 3ms/step - loss: 6.7793e-04 -
val_loss: 6.0257e-04
Epoch 7913/100000
63/63 [=====] - 0s 4ms/step - loss: 6.4699e-04 -
val_loss: 6.8845e-04
Epoch 7914/100000
63/63 [=====] - 0s 4ms/step - loss: 6.1199e-04 -
val_loss: 5.4420e-04
Epoch 7915/100000
63/63 [=====] - 0s 4ms/step - loss: 6.4933e-04 -
val_loss: 5.5077e-04
Epoch 7916/100000

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63/63 [=====] - 0s 4ms/step - loss: 6.7195e-04 -
val_loss: 5.8966e-04
Epoch 7917/100000
62/63 [=====>.] - ETA: 0s - loss: 5.9467e-04Epoch 07916:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.9258e-04 -
val_loss: 3.5755e-04
Epoch 7918/100000
63/63 [=====] - 0s 4ms/step - loss: 9.3197e-04 -
val_loss: 0.0012
Epoch 7919/100000
63/63 [=====] - 0s 4ms/step - loss: 0.0012 - val_loss:
7.4585e-04
Epoch 7920/100000
63/63 [=====] - 0s 4ms/step - loss: 7.3492e-04 -
val_loss: 6.9324e-04
Epoch 7921/100000
63/63 [=====] - 0s 3ms/step - loss: 7.8790e-04 -
val_loss: 7.0807e-04
Epoch 7922/100000
63/63 [=====] - 0s 3ms/step - loss: 9.5812e-04 -
val_loss: 0.0011
Epoch 7923/100000
63/63 [=====] - 0s 3ms/step - loss: 6.9830e-04 -
val_loss: 5.2714e-04
Epoch 7924/100000
63/63 [=====] - 0s 3ms/step - loss: 5.2321e-04 -
val_loss: 6.8729e-04
Epoch 7925/100000
63/63 [=====] - 0s 3ms/step - loss: 7.0984e-04 -
val_loss: 5.9002e-04
Epoch 7926/100000
63/63 [=====] - 0s 4ms/step - loss: 6.1792e-04 -
val_loss: 6.4221e-04
Epoch 7927/100000
63/63 [=====] - 0s 3ms/step - loss: 6.5550e-04 -
val_loss: 5.0946e-04
Epoch 7928/100000
63/63 [=====] - 0s 3ms/step - loss: 4.9972e-04 -
val_loss: 5.6564e-04
Epoch 7929/100000
63/63 [=====] - 0s 3ms/step - loss: 4.6917e-04 -
val_loss: 6.3852e-04
Epoch 7930/100000
46/63 [=====>...] - ETA: 0s - loss: 4.7598e-04Epoch 07929:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 4.7498e-04 -
val_loss: 3.2272e-04

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Epoch 7931/100000
63/63 [=====] - 0s 3ms/step - loss: 7.1436e-04 -
val_loss: 5.1408e-04
Epoch 7932/100000
63/63 [=====] - 0s 3ms/step - loss: 5.4239e-04 -
val_loss: 5.3757e-04
Epoch 7933/100000
63/63 [=====] - 0s 3ms/step - loss: 5.9701e-04 -
val_loss: 7.9271e-04
Epoch 7934/100000
63/63 [=====] - 0s 3ms/step - loss: 5.9169e-04 -
val_loss: 0.0021
Epoch 7935/100000
43/63 [=====>...] - ETA: 0s - loss: 9.7211e-04Epoch 07934:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 9.0885e-04 -
val_loss: 4.5451e-04
Epoch 7936/100000
63/63 [=====] - 0s 4ms/step - loss: 4.7954e-04 -
val_loss: 8.2169e-04
Epoch 7937/100000
63/63 [=====] - 0s 4ms/step - loss: 7.3989e-04 -
val_loss: 5.3738e-04
Epoch 7938/100000
56/63 [=====>...] - ETA: 0s - loss: 5.3937e-04Epoch 07937:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.1739e-04 -
val_loss: 3.4651e-04
Epoch 7939/100000
63/63 [=====] - 0s 4ms/step - loss: 6.2638e-04 -
val_loss: 7.7317e-04
Epoch 7940/100000
63/63 [=====] - 0s 4ms/step - loss: 5.3411e-04 -
val_loss: 7.2990e-04
Epoch 7941/100000
55/63 [=====>...] - ETA: 0s - loss: 5.5645e-04Epoch 07940:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.7776e-04 -
val_loss: 4.3169e-04
Epoch 7942/100000
63/63 [=====] - 0s 4ms/step - loss: 5.7629e-04 -
val_loss: 5.8813e-04
Epoch 7943/100000
61/63 [=====>.] - ETA: 0s - loss: 6.1157e-04Epoch 07942:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 6.0357e-04 -
val_loss: 4.6354e-04
Epoch 7944/100000

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63/63 [=====] - 0s 4ms/step - loss: 6.6203e-04 -
val_loss: 5.9777e-04
Epoch 7945/100000
63/63 [=====] - 0s 3ms/step - loss: 7.7867e-04 -
val_loss: 6.9413e-04
Epoch 7946/100000
63/63 [=====] - 0s 4ms/step - loss: 6.0347e-04 -
val_loss: 5.4655e-04
Epoch 7947/100000
56/63 [=====>...] - ETA: 0s - loss: 5.4727e-04Epoch 07946:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.7400e-04 -
val_loss: 4.7522e-04
Epoch 7948/100000
58/63 [=====>...] - ETA: 0s - loss: 5.9647e-04Epoch 07947:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 6.1200e-04 -
val_loss: 4.1276e-04
Epoch 7949/100000
45/63 [=====>...] - ETA: 0s - loss: 5.2428e-04Epoch 07948:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.5942e-04 -
val_loss: 3.7301e-04
Epoch 7950/100000
56/63 [=====>...] - ETA: 0s - loss: 5.8295e-04Epoch 07949:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.4938e-04 -
val_loss: 4.7530e-04
Epoch 7951/100000
63/63 [=====] - 0s 4ms/step - loss: 5.7199e-04 -
val_loss: 6.3062e-04
Epoch 7952/100000
63/63 [=====] - 0s 3ms/step - loss: 5.1811e-04 -
val_loss: 5.7525e-04
Epoch 7953/100000
58/63 [=====>...] - ETA: 0s - loss: 5.6760e-04Epoch 07952:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.7722e-04 -
val_loss: 3.6597e-04
Epoch 7954/100000
63/63 [=====] - 0s 4ms/step - loss: 5.7872e-04 -
val_loss: 5.3021e-04
Epoch 7955/100000
46/63 [=====>...] - ETA: 0s - loss: 5.1102e-04Epoch 07954:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.2907e-04 -
val_loss: 4.8520e-04
Epoch 7956/100000

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63/63 [=====] - 0s 4ms/step - loss: 5.5976e-04 -
val_loss: 5.7409e-04
Epoch 7957/100000
63/63 [=====] - 0s 3ms/step - loss: 7.5115e-04 -
val_loss: 8.8027e-04
Epoch 7958/100000
63/63 [=====] - 0s 3ms/step - loss: 6.7371e-04 -
val_loss: 0.0011
Epoch 7959/100000
60/63 [=====>..] - ETA: 0s - loss: 5.4570e-04Epoch 07958:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 5.3316e-04 -
val_loss: 4.2976e-04
Epoch 7960/100000
63/63 [=====] - 0s 4ms/step - loss: 6.0560e-04 -
val_loss: 7.5878e-04
Epoch 7961/100000
41/63 [=====>...] - ETA: 0s - loss: 5.3314e-04Epoch 07960:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 4.9385e-04 -
val_loss: 4.6839e-04
Epoch 7962/100000
63/63 [=====] - 0s 4ms/step - loss: 5.3957e-04 -
val_loss: 5.4785e-04
Epoch 7963/100000
53/63 [=====>...] - ETA: 0s - loss: 6.3740e-04Epoch 07962:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 6.3554e-04 -
val_loss: 4.4985e-04
Epoch 7964/100000
63/63 [=====] - 0s 3ms/step - loss: 5.1394e-04 -
val_loss: 6.0973e-04
Epoch 7965/100000
55/63 [=====>...] - ETA: 0s - loss: 4.9810e-04Epoch 07964:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.7144e-04 -
val_loss: 3.7133e-04
Epoch 7966/100000
58/63 [=====>...] - ETA: 0s - loss: 4.0695e-04Epoch 07965:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 4.2099e-04 -
val_loss: 3.5850e-04
Epoch 7967/100000
63/63 [=====] - 0s 4ms/step - loss: 6.5733e-04 -
val_loss: 7.0624e-04
Epoch 7968/100000
63/63 [=====] - 0s 4ms/step - loss: 5.3443e-04 -
val_loss: 6.2579e-04

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Epoch 7969/100000  
63/63 [=====] - 0s 4ms/step - loss: 6.0534e-04 -  
val\_loss: 6.6349e-04  
Epoch 7970/100000  
52/63 [=====>...] - ETA: 0s - loss: 6.7037e-04Epoch 07969:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 6.6856e-04 -  
val\_loss: 3.7066e-04  
Epoch 7971/100000  
63/63 [=====] - 0s 4ms/step - loss: 4.6119e-04 -  
val\_loss: 5.6400e-04  
Epoch 7972/100000  
56/63 [=====>...] - ETA: 0s - loss: 3.8081e-04Epoch 07971:  
early stopping THR  
63/63 [=====] - 0s 3ms/step - loss: 4.1318e-04 -  
val\_loss: 3.5940e-04  
Epoch 7973/100000  
61/63 [=====>.] - ETA: 0s - loss: 3.9892e-04Epoch 07972:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 3.9765e-04 -  
val\_loss: 4.1484e-04  
Epoch 7974/100000  
63/63 [=====] - 0s 3ms/step - loss: 4.7660e-04 -  
val\_loss: 5.2383e-04  
Epoch 7975/100000  
56/63 [=====>...] - ETA: 0s - loss: 4.6385e-04Epoch 07974:  
early stopping THR  
63/63 [=====] - 0s 3ms/step - loss: 4.4139e-04 -  
val\_loss: 4.2406e-04  
Epoch 7976/100000  
59/63 [=====>..] - ETA: 0s - loss: 3.9784e-04Epoch 07975:  
early stopping THR  
63/63 [=====] - 0s 3ms/step - loss: 3.9313e-04 -  
val\_loss: 3.8302e-04  
Epoch 7977/100000  
60/63 [=====>..] - ETA: 0s - loss: 3.7018e-04Epoch 07976:  
early stopping THR  
63/63 [=====] - 0s 3ms/step - loss: 3.6303e-04 -  
val\_loss: 2.1814e-04  
Epoch 7978/100000  
57/63 [=====>...] - ETA: 0s - loss: 4.9560e-04Epoch 07977:  
early stopping THR  
63/63 [=====] - 0s 3ms/step - loss: 5.0512e-04 -  
val\_loss: 2.7302e-04  
Epoch 7979/100000  
63/63 [=====] - 0s 3ms/step - loss: 3.9681e-04 -  
val\_loss: 5.4652e-04  
Epoch 7980/100000



49/63 [=====>...] - ETA: 0s - loss: 4.0814e-04Epoch 07979:  
 early stopping THR  
 63/63 [=====] - 0s 4ms/step - loss: 3.9393e-04 -  
 val\_loss: 3.6147e-04  
 Epoch 7981/100000  
 49/63 [=====>...] - ETA: 0s - loss: 3.3871e-04Epoch 07980:  
 early stopping THR  
 63/63 [=====] - 0s 4ms/step - loss: 3.4871e-04 -  
 val\_loss: 3.4040e-04  
 Epoch 7982/100000  
 61/63 [=====>.] - ETA: 0s - loss: 3.8039e-04Epoch 07981:  
 early stopping THR  
 63/63 [=====] - 0s 4ms/step - loss: 3.8479e-04 -  
 val\_loss: 4.4886e-04  
 Epoch 7983/100000  
 63/63 [=====] - 0s 4ms/step - loss: 4.0710e-04 -  
 val\_loss: 7.6883e-04  
 Epoch 7984/100000  
 63/63 [=====] - ETA: 0s - loss: 7.5971e-04Epoch 07983:  
 early stopping THR  
 63/63 [=====] - 0s 4ms/step - loss: 7.5971e-04 -  
 val\_loss: 3.9937e-04  
 Epoch 7985/100000  
 63/63 [=====] - 0s 4ms/step - loss: 5.0391e-04 -  
 val\_loss: 5.6650e-04  
 Epoch 7986/100000  
 54/63 [=====>...] - ETA: 0s - loss: 4.6188e-04Epoch 07985:  
 early stopping THR  
 63/63 [=====] - 0s 4ms/step - loss: 4.4981e-04 -  
 val\_loss: 4.2040e-04  
 Epoch 7987/100000  
 58/63 [=====>...] - ETA: 0s - loss: 4.1653e-04Epoch 07986:  
 early stopping THR  
 63/63 [=====] - 0s 4ms/step - loss: 4.1161e-04 -  
 val\_loss: 3.9586e-04  
 Epoch 7988/100000  
 63/63 [=====] - 0s 3ms/step - loss: 5.3866e-04 -  
 val\_loss: 6.6073e-04  
 Epoch 7989/100000  
 63/63 [=====] - 0s 3ms/step - loss: 5.3206e-04 -  
 val\_loss: 8.0877e-04  
 Epoch 7990/100000  
 41/63 [=====>...] - ETA: 0s - loss: 4.8978e-04Epoch 07989:  
 early stopping THR  
 63/63 [=====] - 0s 3ms/step - loss: 5.2121e-04 -  
 val\_loss: 4.2328e-04  
 Epoch 7991/100000  
 62/63 [=====>.] - ETA: 0s - loss: 3.9670e-04Epoch 07990:

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early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 3.9668e-04 -
val_loss: 4.9864e-04
Epoch 7992/100000
56/63 [=====>...] - ETA: 0s - loss: 4.4493e-04Epoch 07991:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.5203e-04 -
val_loss: 3.9497e-04
Epoch 7993/100000
62/63 [=====>.] - ETA: 0s - loss: 5.6022e-04Epoch 07992:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 5.5749e-04 -
val_loss: 3.4598e-04
Epoch 7994/100000
52/63 [=====>...] - ETA: 0s - loss: 4.0655e-04Epoch 07993:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.2719e-04 -
val_loss: 3.4218e-04
Epoch 7995/100000
63/63 [=====] - 0s 3ms/step - loss: 5.1703e-04 -
val_loss: 5.6891e-04
Epoch 7996/100000
63/63 [=====] - 0s 3ms/step - loss: 6.1865e-04 -
val_loss: 5.6637e-04
Epoch 7997/100000
53/63 [=====>...] - ETA: 0s - loss: 6.5386e-04Epoch 07996:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 6.0087e-04 -
val_loss: 4.9481e-04
Epoch 7998/100000
63/63 [=====] - 0s 4ms/step - loss: 4.1036e-04 -
val_loss: 5.4475e-04
Epoch 7999/100000
54/63 [=====>...] - ETA: 0s - loss: 3.9702e-04Epoch 07998:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 3.9843e-04 -
val_loss: 4.0286e-04
Epoch 8000/100000
54/63 [=====>...] - ETA: 0s - loss: 4.0987e-04Epoch 07999:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 3.8593e-04 -
val_loss: 4.3172e-04
Epoch 8001/100000
63/63 [=====] - 0s 4ms/step - loss: 5.0763e-04 -
val_loss: 6.1201e-04
Epoch 8002/100000
63/63 [=====] - 0s 4ms/step - loss: 6.1825e-04 -
val_loss: 6.0745e-04

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Epoch 8003/100000  
53/63 [=====>...] - ETA: 0s - loss: 7.2550e-04Epoch 08002:  
early stopping THR  
63/63 [=====] - 0s 6ms/step - loss: 6.6582e-04 -  
val\_loss: 4.4994e-04  
Epoch 8004/100000  
61/63 [=====>.] - ETA: 0s - loss: 4.3540e-04Epoch 08003:  
early stopping THR  
63/63 [=====] - 0s 6ms/step - loss: 4.5298e-04 -  
val\_loss: 4.1095e-04  
Epoch 8005/100000  
50/63 [=====>...] - ETA: 0s - loss: 5.1787e-04Epoch 08004:  
early stopping THR  
63/63 [=====] - 0s 5ms/step - loss: 5.0039e-04 -  
val\_loss: 4.1428e-04  
Epoch 8006/100000  
63/63 [=====] - 0s 4ms/step - loss: 5.1513e-04 -  
val\_loss: 5.3561e-04  
Epoch 8007/100000  
58/63 [=====>...] - ETA: 0s - loss: 4.8054e-04Epoch 08006:  
early stopping THR  
63/63 [=====] - 0s 3ms/step - loss: 4.8974e-04 -  
val\_loss: 3.9570e-04  
Epoch 8008/100000  
63/63 [=====] - 0s 3ms/step - loss: 6.0878e-04 -  
val\_loss: 5.7343e-04  
Epoch 8009/100000  
60/63 [=====>..] - ETA: 0s - loss: 3.8072e-04Epoch 08008:  
early stopping THR  
63/63 [=====] - 0s 3ms/step - loss: 3.9365e-04 -  
val\_loss: 4.8597e-04  
Epoch 8010/100000  
56/63 [=====>...] - ETA: 0s - loss: 5.0231e-04Epoch 08009:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 5.2224e-04 -  
val\_loss: 4.1448e-04  
Epoch 8011/100000  
58/63 [=====>...] - ETA: 0s - loss: 4.6392e-04Epoch 08010:  
early stopping THR  
63/63 [=====] - 0s 3ms/step - loss: 4.4526e-04 -  
val\_loss: 3.5293e-04  
Epoch 8012/100000  
63/63 [=====] - 0s 4ms/step - loss: 4.3726e-04 -  
val\_loss: 5.0450e-04  
Epoch 8013/100000  
62/63 [=====>.] - ETA: 0s - loss: 3.9520e-04Epoch 08012:  
early stopping THR  
63/63 [=====] - 0s 3ms/step - loss: 4.1855e-04 -

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val_loss: 4.8415e-04
Epoch 8014/100000
63/63 [=====] - 0s 4ms/step - loss: 4.1565e-04 -
val_loss: 5.0049e-04
Epoch 8015/100000
52/63 [=====>...] - ETA: 0s - loss: 4.4373e-04Epoch 08014:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.3274e-04 -
val_loss: 4.7761e-04
Epoch 8016/100000
59/63 [=====>..] - ETA: 0s - loss: 4.4029e-04Epoch 08015:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.6417e-04 -
val_loss: 4.1600e-04
Epoch 8017/100000
63/63 [=====] - ETA: 0s - loss: 5.5041e-04Epoch 08016:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 5.5041e-04 -
val_loss: 3.3091e-04
Epoch 8018/100000
56/63 [=====>...] - ETA: 0s - loss: 5.0885e-04Epoch 08017:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.9905e-04 -
val_loss: 2.8480e-04
Epoch 8019/100000
52/63 [=====>...] - ETA: 0s - loss: 7.0346e-04Epoch 08018:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 7.1331e-04 -
val_loss: 3.8876e-04
Epoch 8020/100000
53/63 [=====>...] - ETA: 0s - loss: 4.4248e-04Epoch 08019:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.7565e-04 -
val_loss: 3.8377e-04
Epoch 8021/100000
63/63 [=====] - 0s 4ms/step - loss: 4.7721e-04 -
val_loss: 8.3932e-04
Epoch 8022/100000
63/63 [=====] - 0s 4ms/step - loss: 6.0714e-04 -
val_loss: 5.7890e-04
Epoch 8023/100000
50/63 [=====>...] - ETA: 0s - loss: 5.7915e-04Epoch 08022:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 6.0463e-04 -
val_loss: 3.4658e-04
Epoch 8024/100000
56/63 [=====>...] - ETA: 0s - loss: 5.7055e-04Epoch 08023:
early stopping THR

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63/63 [=====] - 0s 4ms/step - loss: 5.5288e-04 -
val_loss: 3.8697e-04
Epoch 8025/100000
58/63 [=====>...] - ETA: 0s - loss: 6.1797e-04Epoch 08024:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 5.9172e-04 -
val_loss: 4.3351e-04
Epoch 8026/100000
63/63 [=====] - 0s 3ms/step - loss: 5.7749e-04 -
val_loss: 5.3865e-04
Epoch 8027/100000
56/63 [=====>...] - ETA: 0s - loss: 4.6698e-04Epoch 08026:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.5436e-04 -
val_loss: 2.9724e-04
Epoch 8028/100000
63/63 [=====] - 0s 4ms/step - loss: 5.8681e-04 -
val_loss: 5.0137e-04
Epoch 8029/100000
53/63 [=====>...] - ETA: 0s - loss: 5.9828e-04Epoch 08028:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.5578e-04 -
val_loss: 4.1333e-04
Epoch 8030/100000
63/63 [=====] - 0s 4ms/step - loss: 5.0186e-04 -
val_loss: 5.9116e-04
Epoch 8031/100000
63/63 [=====] - 0s 3ms/step - loss: 5.0951e-04 -
val_loss: 5.4347e-04
Epoch 8032/100000
63/63 [=====] - 0s 3ms/step - loss: 5.2174e-04 -
val_loss: 5.7733e-04
Epoch 8033/100000
63/63 [=====] - 0s 3ms/step - loss: 4.7305e-04 -
val_loss: 5.8655e-04
Epoch 8034/100000
63/63 [=====] - 0s 4ms/step - loss: 4.8410e-04 -
val_loss: 5.3702e-04
Epoch 8035/100000
63/63 [=====] - 0s 3ms/step - loss: 6.1193e-04 -
val_loss: 6.0084e-04
Epoch 8036/100000
61/63 [=====>.] - ETA: 0s - loss: 5.2896e-04Epoch 08035:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 5.7050e-04 -
val_loss: 3.1886e-04
Epoch 8037/100000
57/63 [=====>...] - ETA: 0s - loss: 5.0506e-04Epoch 08036:

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early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.1646e-04 -
val_loss: 4.5370e-04
Epoch 8038/100000
63/63 [=====] - 0s 4ms/step - loss: 5.7731e-04 -
val_loss: 0.0013
Epoch 8039/100000
63/63 [=====] - 0s 4ms/step - loss: 5.0905e-04 -
val_loss: 8.5295e-04
Epoch 8040/100000
63/63 [=====] - 0s 3ms/step - loss: 6.1274e-04 -
val_loss: 0.0012
Epoch 8041/100000
44/63 [=====>...] - ETA: 0s - loss: 7.4361e-04Epoch 08040:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 6.3306e-04 -
val_loss: 3.5764e-04
Epoch 8042/100000
58/63 [=====>...] - ETA: 0s - loss: 5.3738e-04Epoch 08041:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 5.4674e-04 -
val_loss: 3.4322e-04
Epoch 8043/100000
47/63 [=====>...] - ETA: 0s - loss: 3.9617e-04Epoch 08042:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 4.2820e-04 -
val_loss: 2.9574e-04
Epoch 8044/100000
61/63 [=====>.] - ETA: 0s - loss: 4.7699e-04Epoch 08043:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 4.7549e-04 -
val_loss: 3.4518e-04
Epoch 8045/100000
56/63 [=====>...] - ETA: 0s - loss: 6.1863e-04Epoch 08044:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.9402e-04 -
val_loss: 4.5244e-04
Epoch 8046/100000
63/63 [=====] - 0s 4ms/step - loss: 5.3197e-04 -
val_loss: 5.3755e-04
Epoch 8047/100000
63/63 [=====] - 0s 4ms/step - loss: 6.2963e-04 -
val_loss: 9.8488e-04
Epoch 8048/100000
56/63 [=====>...] - ETA: 0s - loss: 9.5261e-04Epoch 08047:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 8.9584e-04 -
val_loss: 2.6374e-04

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Epoch 8049/100000  
63/63 [=====] - 0s 4ms/step - loss: 5.0376e-04 -  
val\_loss: 5.3007e-04  
Epoch 8050/100000  
56/63 [=====>...] - ETA: 0s - loss: 4.7804e-04Epoch 08049:  
early stopping THR  
63/63 [=====] - 0s 3ms/step - loss: 4.5095e-04 -  
val\_loss: 3.0494e-04  
Epoch 8051/100000  
55/63 [=====>...] - ETA: 0s - loss: 4.5257e-04Epoch 08050:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 4.3098e-04 -  
val\_loss: 4.2246e-04  
Epoch 8052/100000  
51/63 [=====>...] - ETA: 0s - loss: 6.0900e-04Epoch 08051:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 5.9353e-04 -  
val\_loss: 3.0559e-04  
Epoch 8053/100000  
58/63 [=====>...] - ETA: 0s - loss: 3.5418e-04Epoch 08052:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 3.5886e-04 -  
val\_loss: 2.4750e-04  
Epoch 8054/100000  
57/63 [=====>...] - ETA: 0s - loss: 4.2380e-04Epoch 08053:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 4.0373e-04 -  
val\_loss: 1.9314e-04  
Epoch 8055/100000  
43/63 [=====>...] - ETA: 0s - loss: 4.0720e-04Epoch 08054:  
early stopping THR  
63/63 [=====] - 0s 3ms/step - loss: 4.4432e-04 -  
val\_loss: 4.5014e-04  
Epoch 8056/100000  
62/63 [=====>.] - ETA: 0s - loss: 4.6914e-04Epoch 08055:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 4.6700e-04 -  
val\_loss: 3.9980e-04  
Epoch 8057/100000  
63/63 [=====] - 0s 3ms/step - loss: 3.9298e-04 -  
val\_loss: 5.4259e-04  
Epoch 8058/100000  
51/63 [=====>...] - ETA: 0s - loss: 5.4453e-04Epoch 08057:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 5.6183e-04 -  
val\_loss: 4.7087e-04  
Epoch 8059/100000  
56/63 [=====>...] - ETA: 0s - loss: 4.9214e-04Epoch 08058:

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early stopping THR
63/63 [=====] - 0s 6ms/step - loss: 4.6379e-04 -
val_loss: 3.7860e-04
Epoch 8060/100000
63/63 [=====] - 0s 4ms/step - loss: 5.1713e-04 -
val_loss: 5.7591e-04
Epoch 8061/100000
59/63 [=====>...] - ETA: 0s - loss: 4.8467e-04Epoch 08060:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.7123e-04 -
val_loss: 3.5118e-04
Epoch 8062/100000
63/63 [=====] - 0s 3ms/step - loss: 5.5949e-04 -
val_loss: 6.2313e-04
Epoch 8063/100000
63/63 [=====] - 0s 4ms/step - loss: 7.6915e-04 -
val_loss: 7.7196e-04
Epoch 8064/100000
63/63 [=====] - 0s 3ms/step - loss: 4.2852e-04 -
val_loss: 5.5259e-04
Epoch 8065/100000
54/63 [=====>...] - ETA: 0s - loss: 4.9141e-04Epoch 08064:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.7533e-04 -
val_loss: 4.6376e-04
Epoch 8066/100000
44/63 [=====>...] - ETA: 0s - loss: 3.4754e-04Epoch 08065:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 3.9206e-04 -
val_loss: 2.5634e-04
Epoch 8067/100000
60/63 [=====>...] - ETA: 0s - loss: 4.6993e-04Epoch 08066:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.6125e-04 -
val_loss: 3.4012e-04
Epoch 8068/100000
55/63 [=====>...] - ETA: 0s - loss: 5.1502e-04Epoch 08067:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.9413e-04 -
val_loss: 3.3256e-04
Epoch 8069/100000
58/63 [=====>...] - ETA: 0s - loss: 3.3711e-04Epoch 08068:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 3.3783e-04 -
val_loss: 2.1379e-04
Epoch 8070/100000
55/63 [=====>...] - ETA: 0s - loss: 4.8930e-04Epoch 08069:
early stopping THR

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63/63 [=====] - 0s 4ms/step - loss: 4.7865e-04 -
val_loss: 3.3500e-04
Epoch 8071/100000
63/63 [=====] - 0s 3ms/step - loss: 4.2932e-04 -
val_loss: 5.9597e-04
Epoch 8072/100000
56/63 [=====>...] - ETA: 0s - loss: 4.4698e-04Epoch 08071:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 4.3385e-04 -
val_loss: 3.1136e-04
Epoch 8073/100000
53/63 [=====>...] - ETA: 0s - loss: 3.6802e-04Epoch 08072:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 3.3796e-04 -
val_loss: 3.2194e-04
Epoch 8074/100000
42/63 [=====>...] - ETA: 0s - loss: 3.5142e-04Epoch 08073:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 3.2417e-04 -
val_loss: 3.5895e-04
Epoch 8075/100000
59/63 [=====>..] - ETA: 0s - loss: 3.9037e-04Epoch 08074:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 3.8474e-04 -
val_loss: 2.5045e-04
Epoch 8076/100000
63/63 [=====] - 0s 4ms/step - loss: 4.4293e-04 -
val_loss: 7.0944e-04
Epoch 8077/100000
54/63 [=====>...] - ETA: 0s - loss: 8.2781e-04Epoch 08076:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 8.0344e-04 -
val_loss: 3.6706e-04
Epoch 8078/100000
53/63 [=====>...] - ETA: 0s - loss: 3.9750e-04Epoch 08077:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.5085e-04 -
val_loss: 3.2068e-04
Epoch 8079/100000
54/63 [=====>...] - ETA: 0s - loss: 5.3978e-04Epoch 08078:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.3421e-04 -
val_loss: 2.7167e-04
Epoch 8080/100000
54/63 [=====>...] - ETA: 0s - loss: 5.2262e-04Epoch 08079:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.9917e-04 -
val_loss: 3.2800e-04

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Epoch 8081/100000  
63/63 [=====] - 0s 4ms/step - loss: 4.5770e-04 -  
val\_loss: 7.3490e-04  
Epoch 8082/100000  
63/63 [=====] - 0s 3ms/step - loss: 4.6156e-04 -  
val\_loss: 7.1944e-04  
Epoch 8083/100000  
57/63 [=====>...] - ETA: 0s - loss: 4.1438e-04Epoch 08082:  
early stopping THR  
63/63 [=====] - 0s 3ms/step - loss: 4.1738e-04 -  
val\_loss: 4.2660e-04  
Epoch 8084/100000  
55/63 [=====>...] - ETA: 0s - loss: 4.7317e-04Epoch 08083:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 4.4551e-04 -  
val\_loss: 2.3552e-04  
Epoch 8085/100000  
59/63 [=====>..] - ETA: 0s - loss: 4.4219e-04Epoch 08084:  
early stopping THR  
63/63 [=====] - 0s 3ms/step - loss: 4.3035e-04 -  
val\_loss: 3.4355e-04  
Epoch 8086/100000  
55/63 [=====>...] - ETA: 0s - loss: 3.8521e-04Epoch 08085:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 4.0803e-04 -  
val\_loss: 3.6529e-04  
Epoch 8087/100000  
62/63 [=====>.] - ETA: 0s - loss: 5.8232e-04Epoch 08086:  
early stopping THR  
63/63 [=====] - 0s 3ms/step - loss: 5.8165e-04 -  
val\_loss: 4.8330e-04  
Epoch 8088/100000  
63/63 [=====] - 0s 3ms/step - loss: 4.6155e-04 -  
val\_loss: 6.5274e-04  
Epoch 8089/100000  
53/63 [=====>...] - ETA: 0s - loss: 4.3063e-04Epoch 08088:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 4.2176e-04 -  
val\_loss: 2.5062e-04  
Epoch 8090/100000  
52/63 [=====>...] - ETA: 0s - loss: 3.6916e-04Epoch 08089:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 3.6749e-04 -  
val\_loss: 4.9209e-04  
Epoch 8091/100000  
63/63 [=====] - 0s 3ms/step - loss: 4.9682e-04 -  
val\_loss: 9.6541e-04  
Epoch 8092/100000

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63/63 [=====] - 0s 4ms/step - loss: 4.9794e-04 -
val_loss: 6.3217e-04
Epoch 8093/100000
58/63 [=====>...] - ETA: 0s - loss: 7.1702e-04Epoch 08092:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 6.9415e-04 -
val_loss: 3.2089e-04
Epoch 8094/100000
58/63 [=====>...] - ETA: 0s - loss: 6.4730e-04Epoch 08093:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 6.2992e-04 -
val_loss: 3.6716e-04
Epoch 8095/100000
63/63 [=====] - 0s 3ms/step - loss: 4.1627e-04 -
val_loss: 6.3494e-04
Epoch 8096/100000
63/63 [=====] - 0s 4ms/step - loss: 5.5214e-04 -
val_loss: 8.5914e-04
Epoch 8097/100000
51/63 [=====>...] - ETA: 0s - loss: 5.9764e-04Epoch 08096:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 6.6983e-04 -
val_loss: 4.8861e-04
Epoch 8098/100000
62/63 [=====>.] - ETA: 0s - loss: 4.4790e-04Epoch 08097:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 4.4581e-04 -
val_loss: 3.9855e-04
Epoch 8099/100000
63/63 [=====] - 0s 4ms/step - loss: 4.7402e-04 -
val_loss: 5.3531e-04
Epoch 8100/100000
56/63 [=====>...] - ETA: 0s - loss: 4.6606e-04Epoch 08099:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.7007e-04 -
val_loss: 3.7766e-04
Epoch 8101/100000
57/63 [=====>...] - ETA: 0s - loss: 3.3697e-04Epoch 08100:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 3.6132e-04 -
val_loss: 2.1807e-04
Epoch 8102/100000
63/63 [=====] - ETA: 0s - loss: 4.2107e-04Epoch 08101:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 4.2107e-04 -
val_loss: 4.9295e-04
Epoch 8103/100000
58/63 [=====>...] - ETA: 0s - loss: 3.7847e-04Epoch 08102:

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early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 3.7080e-04 -
val_loss: 4.4126e-04
Epoch 8104/100000
44/63 [=====>...] - ETA: 0s - loss: 5.2693e-04Epoch 08103:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 5.1109e-04 -
val_loss: 4.0517e-04
Epoch 8105/100000
63/63 [=====] - ETA: 0s - loss: 8.2646e-04Epoch 08104:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 8.2646e-04 -
val_loss: 3.2238e-04
Epoch 8106/100000
63/63 [=====] - 0s 3ms/step - loss: 5.4817e-04 -
val_loss: 6.6885e-04
Epoch 8107/100000
50/63 [=====>...] - ETA: 0s - loss: 5.5945e-04Epoch 08106:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.5429e-04 -
val_loss: 3.1597e-04
Epoch 8108/100000
63/63 [=====] - ETA: 0s - loss: 4.5894e-04Epoch 08107:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 4.5894e-04 -
val_loss: 4.6056e-04
Epoch 8109/100000
63/63 [=====] - 0s 4ms/step - loss: 5.1302e-04 -
val_loss: 6.3785e-04
Epoch 8110/100000
61/63 [=====>.] - ETA: 0s - loss: 5.2785e-04Epoch 08109:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.2389e-04 -
val_loss: 4.7368e-04
Epoch 8111/100000
63/63 [=====] - 0s 4ms/step - loss: 5.7947e-04 -
val_loss: 6.7503e-04
Epoch 8112/100000
63/63 [=====] - 0s 4ms/step - loss: 5.3334e-04 -
val_loss: 6.2081e-04
Epoch 8113/100000
63/63 [=====] - 0s 4ms/step - loss: 5.0281e-04 -
val_loss: 6.5024e-04
Epoch 8114/100000
63/63 [=====] - 0s 4ms/step - loss: 5.1993e-04 -
val_loss: 6.8858e-04
Epoch 8115/100000
63/63 [=====] - 0s 4ms/step - loss: 4.8807e-04 -

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val_loss: 6.4142e-04
Epoch 8116/100000
63/63 [=====] - 0s 3ms/step - loss: 4.2631e-04 -
val_loss: 5.7592e-04
Epoch 8117/100000
63/63 [=====] - 0s 3ms/step - loss: 4.6214e-04 -
val_loss: 5.6347e-04
Epoch 8118/100000
63/63 [=====] - 0s 4ms/step - loss: 4.6395e-04 -
val_loss: 9.3337e-04
Epoch 8119/100000
42/63 [=====>...] - ETA: 0s - loss: 5.7406e-04Epoch 08118:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.5362e-04 -
val_loss: 2.7451e-04
Epoch 8120/100000
63/63 [=====] - 0s 3ms/step - loss: 5.3393e-04 -
val_loss: 8.9664e-04
Epoch 8121/100000
58/63 [=====>...] - ETA: 0s - loss: 4.0084e-04Epoch 08120:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 4.0469e-04 -
val_loss: 3.0341e-04
Epoch 8122/100000
63/63 [=====] - 0s 4ms/step - loss: 5.3783e-04 -
val_loss: 5.1287e-04
Epoch 8123/100000
63/63 [=====] - 0s 3ms/step - loss: 4.3479e-04 -
val_loss: 6.1935e-04
Epoch 8124/100000
59/63 [=====>..] - ETA: 0s - loss: 5.3300e-04Epoch 08123:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.2327e-04 -
val_loss: 3.2105e-04
Epoch 8125/100000
63/63 [=====] - 0s 3ms/step - loss: 6.3663e-04 -
val_loss: 7.7924e-04
Epoch 8126/100000
58/63 [=====>...] - ETA: 0s - loss: 5.3308e-04Epoch 08125:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 5.5293e-04 -
val_loss: 4.8535e-04
Epoch 8127/100000
63/63 [=====] - 0s 4ms/step - loss: 6.7900e-04 -
val_loss: 5.9869e-04
Epoch 8128/100000
63/63 [=====] - 0s 3ms/step - loss: 7.2412e-04 -
val_loss: 6.1643e-04

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Epoch 8129/100000  
56/63 [=====>...] - ETA: 0s - loss: 5.4114e-04Epoch 08128:  
early stopping THR  
63/63 [=====] - 0s 3ms/step - loss: 5.2737e-04 -  
val\_loss: 4.1154e-04  
Epoch 8130/100000  
63/63 [=====] - 0s 4ms/step - loss: 4.4715e-04 -  
val\_loss: 5.2925e-04  
Epoch 8131/100000  
63/63 [=====] - 0s 4ms/step - loss: 4.8869e-04 -  
val\_loss: 5.2436e-04  
Epoch 8132/100000  
54/63 [=====>...] - ETA: 0s - loss: 5.0650e-04Epoch 08131:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 4.9370e-04 -  
val\_loss: 3.0571e-04  
Epoch 8133/100000  
52/63 [=====>...] - ETA: 0s - loss: 4.4914e-04Epoch 08132:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 4.4329e-04 -  
val\_loss: 4.9092e-04  
Epoch 8134/100000  
61/63 [=====>.] - ETA: 0s - loss: 5.7158e-04Epoch 08133:  
early stopping THR  
63/63 [=====] - 0s 3ms/step - loss: 5.6348e-04 -  
val\_loss: 3.0072e-04  
Epoch 8135/100000  
63/63 [=====] - 0s 4ms/step - loss: 6.5212e-04 -  
val\_loss: 8.2049e-04  
Epoch 8136/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val\_loss:  
8.3235e-04  
Epoch 8137/100000  
49/63 [=====>...] - ETA: 0s - loss: 4.8127e-04Epoch 08136:  
early stopping THR  
63/63 [=====] - 0s 3ms/step - loss: 5.6259e-04 -  
val\_loss: 4.8172e-04  
Epoch 8138/100000  
63/63 [=====] - 0s 4ms/step - loss: 6.2453e-04 -  
val\_loss: 5.6503e-04  
Epoch 8139/100000  
55/63 [=====>...] - ETA: 0s - loss: 5.1956e-04Epoch 08138:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 5.1039e-04 -  
val\_loss: 3.4990e-04  
Epoch 8140/100000  
60/63 [=====>..] - ETA: 0s - loss: 5.4059e-04Epoch 08139:  
early stopping THR

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63/63 [=====] - 0s 3ms/step - loss: 5.6185e-04 -
val_loss: 4.4917e-04
Epoch 8141/100000
63/63 [=====] - ETA: 0s - loss: 4.4985e-04Epoch 08140:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 4.4985e-04 -
val_loss: 4.7115e-04
Epoch 8142/100000
63/63 [=====] - 0s 4ms/step - loss: 5.6649e-04 -
val_loss: 0.0010
Epoch 8143/100000
53/63 [=====>...] - ETA: 0s - loss: 5.0344e-04Epoch 08142:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.8506e-04 -
val_loss: 3.0139e-04
Epoch 8144/100000
63/63 [=====] - 0s 4ms/step - loss: 6.2004e-04 -
val_loss: 9.6235e-04
Epoch 8145/100000
63/63 [=====] - 0s 3ms/step - loss: 5.9255e-04 -
val_loss: 6.4796e-04
Epoch 8146/100000
51/63 [=====>...] - ETA: 0s - loss: 4.0290e-04Epoch 08145:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.0810e-04 -
val_loss: 4.4737e-04
Epoch 8147/100000
59/63 [=====>..] - ETA: 0s - loss: 4.6196e-04Epoch 08146:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.4542e-04 -
val_loss: 4.9646e-04
Epoch 8148/100000
63/63 [=====] - 0s 3ms/step - loss: 4.0484e-04 -
val_loss: 6.0081e-04
Epoch 8149/100000
45/63 [=====>...] - ETA: 0s - loss: 3.7110e-04Epoch 08148:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 3.9853e-04 -
val_loss: 3.2167e-04
Epoch 8150/100000
60/63 [=====>..] - ETA: 0s - loss: 4.0040e-04Epoch 08149:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 3.9227e-04 -
val_loss: 4.6867e-04
Epoch 8151/100000
63/63 [=====] - 0s 3ms/step - loss: 5.0072e-04 -
val_loss: 8.3841e-04
Epoch 8152/100000

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63/63 [=====] - 0s 3ms/step - loss: 5.2537e-04 -
val_loss: 7.0705e-04
Epoch 8153/100000
63/63 [=====] - 0s 3ms/step - loss: 4.8114e-04 -
val_loss: 5.5388e-04
Epoch 8154/100000
63/63 [=====] - 0s 4ms/step - loss: 4.5345e-04 -
val_loss: 5.3254e-04
Epoch 8155/100000
44/63 [=====>...] - ETA: 0s - loss: 5.9145e-04Epoch 08154:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.5192e-04 -
val_loss: 3.4413e-04
Epoch 8156/100000
63/63 [=====] - 0s 3ms/step - loss: 4.4028e-04 -
val_loss: 0.0011
Epoch 8157/100000
62/63 [=====>.] - ETA: 0s - loss: 5.5762e-04Epoch 08156:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 5.5457e-04 -
val_loss: 4.8361e-04
Epoch 8158/100000
63/63 [=====] - 0s 4ms/step - loss: 5.8756e-04 -
val_loss: 5.5890e-04
Epoch 8159/100000
62/63 [=====>.] - ETA: 0s - loss: 4.7524e-04Epoch 08158:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 4.7245e-04 -
val_loss: 2.7260e-04
Epoch 8160/100000
63/63 [=====] - 0s 3ms/step - loss: 3.2990e-04 -
val_loss: 5.6859e-04
Epoch 8161/100000
44/63 [=====>...] - ETA: 0s - loss: 4.3345e-04Epoch 08160:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 4.7116e-04 -
val_loss: 4.4476e-04
Epoch 8162/100000
63/63 [=====] - 0s 4ms/step - loss: 4.6517e-04 -
val_loss: 5.4436e-04
Epoch 8163/100000
63/63 [=====] - 0s 4ms/step - loss: 4.2046e-04 -
val_loss: 5.4755e-04
Epoch 8164/100000
59/63 [=====>...] - ETA: 0s - loss: 3.7157e-04Epoch 08163:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 3.6083e-04 -
val_loss: 3.4525e-04

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Epoch 8165/100000  
57/63 [=====>...] - ETA: 0s - loss: 4.7639e-04Epoch 08164:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 4.6581e-04 -  
val\_loss: 4.3758e-04  
Epoch 8166/100000  
43/63 [=====>...] - ETA: 0s - loss: 3.7861e-04Epoch 08165:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 3.9129e-04 -  
val\_loss: 4.3876e-04  
Epoch 8167/100000  
50/63 [=====>...] - ETA: 0s - loss: 5.5526e-04Epoch 08166:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 5.3250e-04 -  
val\_loss: 2.6486e-04  
Epoch 8168/100000  
54/63 [=====>...] - ETA: 0s - loss: 4.1086e-04Epoch 08167:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 3.9468e-04 -  
val\_loss: 3.2621e-04  
Epoch 8169/100000  
60/63 [=====>..] - ETA: 0s - loss: 4.0652e-04Epoch 08168:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 4.2687e-04 -  
val\_loss: 4.0647e-04  
Epoch 8170/100000  
63/63 [=====] - 0s 4ms/step - loss: 5.5547e-04 -  
val\_loss: 5.8665e-04  
Epoch 8171/100000  
49/63 [=====>...] - ETA: 0s - loss: 5.3803e-04Epoch 08170:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 5.3814e-04 -  
val\_loss: 4.1455e-04  
Epoch 8172/100000  
63/63 [=====] - 0s 4ms/step - loss: 5.7298e-04 -  
val\_loss: 5.1747e-04  
Epoch 8173/100000  
63/63 [=====] - 0s 4ms/step - loss: 5.3680e-04 -  
val\_loss: 6.7148e-04  
Epoch 8174/100000  
63/63 [=====] - 0s 4ms/step - loss: 5.7829e-04 -  
val\_loss: 7.7234e-04  
Epoch 8175/100000  
63/63 [=====] - 0s 3ms/step - loss: 6.8756e-04 -  
val\_loss: 6.2166e-04  
Epoch 8176/100000  
61/63 [=====>.] - ETA: 0s - loss: 6.2448e-04Epoch 08175:  
early stopping THR

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63/63 [=====] - 0s 3ms/step - loss: 6.4590e-04 -
val_loss: 4.0509e-04
Epoch 8177/100000
57/63 [=====>...] - ETA: 0s - loss: 4.8026e-04Epoch 08176:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 4.5608e-04 -
val_loss: 4.3296e-04
Epoch 8178/100000
63/63 [=====] - 0s 4ms/step - loss: 5.2486e-04 -
val_loss: 5.5925e-04
Epoch 8179/100000
42/63 [=====>...] - ETA: 0s - loss: 3.9093e-04Epoch 08178:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 3.5406e-04 -
val_loss: 2.4037e-04
Epoch 8180/100000
60/63 [=====>..] - ETA: 0s - loss: 4.5288e-04Epoch 08179:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 4.6286e-04 -
val_loss: 4.5435e-04
Epoch 8181/100000
58/63 [=====>...] - ETA: 0s - loss: 4.1001e-04Epoch 08180:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 4.2461e-04 -
val_loss: 4.7772e-04
Epoch 8182/100000
63/63 [=====] - 0s 3ms/step - loss: 6.7986e-04 -
val_loss: 5.5321e-04
Epoch 8183/100000
63/63 [=====] - 0s 4ms/step - loss: 7.3122e-04 -
val_loss: 6.6824e-04
Epoch 8184/100000
58/63 [=====>...] - ETA: 0s - loss: 3.9832e-04Epoch 08183:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 4.5673e-04 -
val_loss: 3.1950e-04
Epoch 8185/100000
57/63 [=====>...] - ETA: 0s - loss: 3.8755e-04Epoch 08184:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.2243e-04 -
val_loss: 3.9465e-04
Epoch 8186/100000
54/63 [=====>...] - ETA: 0s - loss: 4.0226e-04Epoch 08185:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.2856e-04 -
val_loss: 3.6913e-04
Epoch 8187/100000
59/63 [=====>..] - ETA: 0s - loss: 4.5092e-04Epoch 08186:

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early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.5561e-04 -
val_loss: 2.2660e-04
Epoch 8188/100000
53/63 [=====>...] - ETA: 0s - loss: 5.4461e-04Epoch 08187:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.2339e-04 -
val_loss: 3.7262e-04
Epoch 8189/100000
53/63 [=====>...] - ETA: 0s - loss: 5.3323e-04Epoch 08188:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.9930e-04 -
val_loss: 2.4878e-04
Epoch 8190/100000
63/63 [=====] - 0s 4ms/step - loss: 4.9824e-04 -
val_loss: 5.6606e-04
Epoch 8191/100000
54/63 [=====>...] - ETA: 0s - loss: 4.6574e-04Epoch 08190:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.5410e-04 -
val_loss: 4.6412e-04
Epoch 8192/100000
57/63 [=====>...] - ETA: 0s - loss: 3.7534e-04Epoch 08191:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 3.8171e-04 -
val_loss: 4.9007e-04
Epoch 8193/100000
63/63 [=====] - 0s 4ms/step - loss: 3.1595e-04 -
val_loss: 6.9156e-04
Epoch 8194/100000
56/63 [=====>...] - ETA: 0s - loss: 4.5585e-04Epoch 08193:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.4188e-04 -
val_loss: 3.3159e-04
Epoch 8195/100000
63/63 [=====] - 0s 3ms/step - loss: 5.0797e-04 -
val_loss: 5.6904e-04
Epoch 8196/100000
63/63 [=====] - 0s 3ms/step - loss: 5.0647e-04 -
val_loss: 5.5389e-04
Epoch 8197/100000
63/63 [=====] - 0s 4ms/step - loss: 5.8967e-04 -
val_loss: 5.1688e-04
Epoch 8198/100000
63/63 [=====] - 0s 3ms/step - loss: 5.5779e-04 -
val_loss: 7.0699e-04
Epoch 8199/100000
56/63 [=====>...] - ETA: 0s - loss: 6.3514e-04Epoch 08198:

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early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 6.0843e-04 -
val_loss: 3.8595e-04
Epoch 8200/100000
54/63 [=====>...] - ETA: 0s - loss: 3.9356e-04Epoch 08199:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.0512e-04 -
val_loss: 4.3387e-04
Epoch 8201/100000
47/63 [=====>...] - ETA: 0s - loss: 4.6480e-04Epoch 08200:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 4.0306e-04 -
val_loss: 3.3089e-04
Epoch 8202/100000
53/63 [=====>...] - ETA: 0s - loss: 4.6063e-04Epoch 08201:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.1835e-04 -
val_loss: 2.7221e-04
Epoch 8203/100000
53/63 [=====>...] - ETA: 0s - loss: 4.3159e-04Epoch 08202:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.1549e-04 -
val_loss: 3.1203e-04
Epoch 8204/100000
57/63 [=====>...] - ETA: 0s - loss: 3.9646e-04Epoch 08203:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 3.7894e-04 -
val_loss: 2.7452e-04
Epoch 8205/100000
63/63 [=====] - 0s 4ms/step - loss: 3.1879e-04 -
val_loss: 5.7015e-04
Epoch 8206/100000
63/63 [=====] - 0s 4ms/step - loss: 4.2097e-04 -
val_loss: 6.4813e-04
Epoch 8207/100000
63/63 [=====] - 0s 4ms/step - loss: 4.4551e-04 -
val_loss: 7.8441e-04
Epoch 8208/100000
53/63 [=====>...] - ETA: 0s - loss: 5.0362e-04Epoch 08207:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.6149e-04 -
val_loss: 2.8013e-04
Epoch 8209/100000
63/63 [=====] - ETA: 0s - loss: 3.8253e-04Epoch 08208:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 3.8253e-04 -
val_loss: 2.9956e-04
Epoch 8210/100000

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63/63 [=====] - 0s 4ms/step - loss: 5.2784e-04 -
val_loss: 5.3719e-04
Epoch 8211/100000
59/63 [=====>...] - ETA: 0s - loss: 5.0838e-04Epoch 08210:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 4.9533e-04 -
val_loss: 3.4737e-04
Epoch 8212/100000
63/63 [=====] - 0s 3ms/step - loss: 3.5103e-04 -
val_loss: 5.2474e-04
Epoch 8213/100000
63/63 [=====] - 0s 3ms/step - loss: 4.6673e-04 -
val_loss: 5.7206e-04
Epoch 8214/100000
63/63 [=====] - 0s 3ms/step - loss: 6.2454e-04 -
val_loss: 9.1376e-04
Epoch 8215/100000
56/63 [=====>...] - ETA: 0s - loss: 5.0662e-04Epoch 08214:
early stopping THR
63/63 [=====] - 0s 6ms/step - loss: 4.8610e-04 -
val_loss: 3.4753e-04
Epoch 8216/100000
63/63 [=====] - 0s 4ms/step - loss: 5.2551e-04 -
val_loss: 7.3687e-04
Epoch 8217/100000
63/63 [=====] - 0s 4ms/step - loss: 5.0853e-04 -
val_loss: 6.6751e-04
Epoch 8218/100000
54/63 [=====>...] - ETA: 0s - loss: 5.5967e-04Epoch 08217:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.3197e-04 -
val_loss: 4.7364e-04
Epoch 8219/100000
60/63 [=====>...] - ETA: 0s - loss: 3.7034e-04Epoch 08218:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 3.6158e-04 -
val_loss: 3.7211e-04
Epoch 8220/100000
54/63 [=====>...] - ETA: 0s - loss: 5.8868e-04Epoch 08219:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.4933e-04 -
val_loss: 4.0972e-04
Epoch 8221/100000
53/63 [=====>...] - ETA: 0s - loss: 5.0489e-04Epoch 08220:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 4.8181e-04 -
val_loss: 4.8182e-04
Epoch 8222/100000

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62/63 [=====>.] - ETA: 0s - loss: 5.1824e-04Epoch 08221:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 5.1544e-04 -
val_loss: 3.1302e-04
Epoch 8223/100000
60/63 [=====>..] - ETA: 0s - loss: 5.0642e-04Epoch 08222:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 4.9551e-04 -
val_loss: 2.4666e-04
Epoch 8224/100000
58/63 [=====>...] - ETA: 0s - loss: 5.2887e-04Epoch 08223:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 5.1682e-04 -
val_loss: 3.1371e-04
Epoch 8225/100000
56/63 [=====>...] - ETA: 0s - loss: 5.2598e-04Epoch 08224:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 5.2506e-04 -
val_loss: 2.6284e-04
Epoch 8226/100000
63/63 [=====] - 0s 4ms/step - loss: 5.4645e-04 -
val_loss: 5.5189e-04
Epoch 8227/100000
59/63 [=====>..] - ETA: 0s - loss: 4.1537e-04Epoch 08226:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 4.0491e-04 -
val_loss: 4.7911e-04
Epoch 8228/100000
60/63 [=====>..] - ETA: 0s - loss: 3.8375e-04Epoch 08227:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 4.0789e-04 -
val_loss: 4.8423e-04
Epoch 8229/100000
57/63 [=====>...] - ETA: 0s - loss: 4.0943e-04Epoch 08228:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 3.8868e-04 -
val_loss: 3.3225e-04
Epoch 8230/100000
50/63 [=====>...] - ETA: 0s - loss: 4.1023e-04Epoch 08229:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 3.6497e-04 -
val_loss: 4.5773e-04
Epoch 8231/100000
54/63 [=====>...] - ETA: 0s - loss: 4.1625e-04Epoch 08230:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 4.0713e-04 -
val_loss: 4.7242e-04
Epoch 8232/100000

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56/63 [=====>...] - ETA: 0s - loss: 5.4194e-04Epoch 08231:  
 early stopping THR  
 63/63 [=====] - 0s 3ms/step - loss: 5.3586e-04 -  
 val\_loss: 2.8422e-04  
 Epoch 8233/100000  
 45/63 [=====>...] - ETA: 0s - loss: 5.9301e-04Epoch 08232:  
 early stopping THR  
 63/63 [=====] - 0s 3ms/step - loss: 5.6572e-04 -  
 val\_loss: 2.5477e-04  
 Epoch 8234/100000  
 63/63 [=====] - 0s 3ms/step - loss: 5.1252e-04 -  
 val\_loss: 7.3133e-04  
 Epoch 8235/100000  
 54/63 [=====>...] - ETA: 0s - loss: 8.5466e-04Epoch 08234:  
 early stopping THR  
 63/63 [=====] - 0s 4ms/step - loss: 8.0026e-04 -  
 val\_loss: 4.0395e-04  
 Epoch 8236/100000  
 61/63 [=====>.] - ETA: 0s - loss: 5.0267e-04Epoch 08235:  
 early stopping THR  
 63/63 [=====] - 0s 3ms/step - loss: 4.9632e-04 -  
 val\_loss: 4.0449e-04  
 Epoch 8237/100000  
 58/63 [=====>...] - ETA: 0s - loss: 3.6586e-04Epoch 08236:  
 early stopping THR  
 63/63 [=====] - 0s 3ms/step - loss: 3.6050e-04 -  
 val\_loss: 3.5238e-04  
 Epoch 8238/100000  
 58/63 [=====>...] - ETA: 0s - loss: 3.9104e-04Epoch 08237:  
 early stopping THR  
 63/63 [=====] - 0s 4ms/step - loss: 4.0802e-04 -  
 val\_loss: 3.5937e-04  
 Epoch 8239/100000  
 49/63 [=====>...] - ETA: 0s - loss: 3.9946e-04Epoch 08238:  
 early stopping THR  
 63/63 [=====] - 0s 4ms/step - loss: 3.7847e-04 -  
 val\_loss: 3.1618e-04  
 Epoch 8240/100000  
 59/63 [=====>..] - ETA: 0s - loss: 6.1659e-04Epoch 08239:  
 early stopping THR  
 63/63 [=====] - 0s 3ms/step - loss: 5.9940e-04 -  
 val\_loss: 4.5728e-04  
 Epoch 8241/100000  
 61/63 [=====>.] - ETA: 0s - loss: 3.9003e-04Epoch 08240:  
 early stopping THR  
 63/63 [=====] - 0s 3ms/step - loss: 3.8635e-04 -  
 val\_loss: 4.7736e-04  
 Epoch 8242/100000

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63/63 [=====] - 0s 3ms/step - loss: 5.0676e-04 -
val_loss: 5.2121e-04
Epoch 8243/100000
62/63 [=====>.] - ETA: 0s - loss: 5.5642e-04Epoch 08242:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 5.5441e-04 -
val_loss: 2.9468e-04
Epoch 8244/100000
59/63 [=====>..] - ETA: 0s - loss: 6.5942e-04Epoch 08243:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 6.5625e-04 -
val_loss: 4.5652e-04
Epoch 8245/100000
54/63 [=====>...] - ETA: 0s - loss: 5.7235e-04Epoch 08244:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.3781e-04 -
val_loss: 3.4252e-04
Epoch 8246/100000
61/63 [=====>.] - ETA: 0s - loss: 4.2828e-04Epoch 08245:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 4.2326e-04 -
val_loss: 3.2881e-04
Epoch 8247/100000
56/63 [=====>...] - ETA: 0s - loss: 3.2375e-04Epoch 08246:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 3.6435e-04 -
val_loss: 4.7637e-04
Epoch 8248/100000
63/63 [=====] - 0s 4ms/step - loss: 4.9037e-04 -
val_loss: 7.8025e-04
Epoch 8249/100000
63/63 [=====] - 0s 4ms/step - loss: 4.3129e-04 -
val_loss: 5.5613e-04
Epoch 8250/100000
61/63 [=====>.] - ETA: 0s - loss: 3.9904e-04Epoch 08249:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 4.0662e-04 -
val_loss: 2.1824e-04
Epoch 8251/100000
63/63 [=====] - 0s 3ms/step - loss: 3.2837e-04 -
val_loss: 6.0062e-04
Epoch 8252/100000
48/63 [=====>...] - ETA: 0s - loss: 4.5361e-04Epoch 08251:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 4.5543e-04 -
val_loss: 3.4120e-04
Epoch 8253/100000
63/63 [=====] - 0s 4ms/step - loss: 4.0677e-04 -

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val_loss: 5.1148e-04
Epoch 8254/100000
63/63 [=====] - 0s 3ms/step - loss: 4.4635e-04 -
val_loss: 5.2516e-04
Epoch 8255/100000
46/63 [=====>...] - ETA: 0s - loss: 5.6670e-04Epoch 08254:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.3117e-04 -
val_loss: 2.7112e-04
Epoch 8256/100000
63/63 [=====] - ETA: 0s - loss: 5.1507e-04Epoch 08255:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 5.1507e-04 -
val_loss: 3.1433e-04
Epoch 8257/100000
63/63 [=====] - 0s 4ms/step - loss: 5.8321e-04 -
val_loss: 8.1367e-04
Epoch 8258/100000
63/63 [=====] - 0s 4ms/step - loss: 6.3355e-04 -
val_loss: 6.0302e-04
Epoch 8259/100000
61/63 [=====>.] - ETA: 0s - loss: 4.2228e-04Epoch 08258:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.1767e-04 -
val_loss: 2.5536e-04
Epoch 8260/100000
63/63 [=====] - 0s 4ms/step - loss: 3.4607e-04 -
val_loss: 6.8194e-04
Epoch 8261/100000
57/63 [=====>...] - ETA: 0s - loss: 4.9629e-04Epoch 08260:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 4.6695e-04 -
val_loss: 2.5586e-04
Epoch 8262/100000
60/63 [=====>..] - ETA: 0s - loss: 2.7897e-04Epoch 08261:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 2.8975e-04 -
val_loss: 2.5583e-04
Epoch 8263/100000
56/63 [=====>...] - ETA: 0s - loss: 4.0671e-04Epoch 08262:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.0004e-04 -
val_loss: 3.5586e-04
Epoch 8264/100000
63/63 [=====] - 0s 4ms/step - loss: 6.3632e-04 -
val_loss: 5.8147e-04
Epoch 8265/100000
58/63 [=====>...] - ETA: 0s - loss: 4.2742e-04Epoch 08264:

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early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.0728e-04 -
val_loss: 3.2408e-04
Epoch 8266/100000
60/63 [=====>..] - ETA: 0s - loss: 3.5114e-04Epoch 08265:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 3.4944e-04 -
val_loss: 3.0285e-04
Epoch 8267/100000
63/63 [=====] - 0s 4ms/step - loss: 4.4929e-04 -
val_loss: 5.9110e-04
Epoch 8268/100000
63/63 [=====] - 0s 4ms/step - loss: 4.9200e-04 -
val_loss: 0.0015
Epoch 8269/100000
63/63 [=====] - 0s 4ms/step - loss: 5.1385e-04 -
val_loss: 5.0339e-04
Epoch 8270/100000
49/63 [=====>...] - ETA: 0s - loss: 3.4638e-04Epoch 08269:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 4.0965e-04 -
val_loss: 4.9590e-04
Epoch 8271/100000
63/63 [=====] - 0s 3ms/step - loss: 4.3136e-04 -
val_loss: 5.6108e-04
Epoch 8272/100000
63/63 [=====] - 0s 3ms/step - loss: 5.2422e-04 -
val_loss: 6.9234e-04
Epoch 8273/100000
42/63 [=====>...] - ETA: 0s - loss: 5.5990e-04Epoch 08272:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 5.2250e-04 -
val_loss: 2.9469e-04
Epoch 8274/100000
63/63 [=====] - ETA: 0s - loss: 4.7974e-04Epoch 08273:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.7974e-04 -
val_loss: 4.0231e-04
Epoch 8275/100000
63/63 [=====] - 0s 3ms/step - loss: 4.5902e-04 -
val_loss: 5.0831e-04
Epoch 8276/100000
57/63 [=====>...] - ETA: 0s - loss: 4.8455e-04Epoch 08275:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 4.7310e-04 -
val_loss: 3.4839e-04
Epoch 8277/100000
58/63 [=====>...] - ETA: 0s - loss: 4.4146e-04Epoch 08276:

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early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 4.5627e-04 -
val_loss: 2.6882e-04
Epoch 8278/100000
63/63 [=====] - 0s 4ms/step - loss: 3.8748e-04 -
val_loss: 5.3503e-04
Epoch 8279/100000
63/63 [=====] - 0s 4ms/step - loss: 3.9093e-04 -
val_loss: 6.3461e-04
Epoch 8280/100000
63/63 [=====] - 0s 4ms/step - loss: 3.4860e-04 -
val_loss: 5.3961e-04
Epoch 8281/100000
58/63 [=====>...] - ETA: 0s - loss: 3.6976e-04Epoch 08280:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 3.6557e-04 -
val_loss: 4.0422e-04
Epoch 8282/100000
63/63 [=====] - 0s 4ms/step - loss: 5.7461e-04 -
val_loss: 0.0010
Epoch 8283/100000
59/63 [=====>..] - ETA: 0s - loss: 7.1950e-04Epoch 08282:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 7.3529e-04 -
val_loss: 4.8672e-04
Epoch 8284/100000
59/63 [=====>..] - ETA: 0s - loss: 6.6193e-04Epoch 08283:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 6.4105e-04 -
val_loss: 4.1577e-04
Epoch 8285/100000
63/63 [=====] - 0s 4ms/step - loss: 4.2460e-04 -
val_loss: 6.7923e-04
Epoch 8286/100000
55/63 [=====>...] - ETA: 0s - loss: 4.4898e-04Epoch 08285:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.4357e-04 -
val_loss: 2.6140e-04
Epoch 8287/100000
59/63 [=====>..] - ETA: 0s - loss: 4.6913e-04Epoch 08286:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 4.5437e-04 -
val_loss: 2.7967e-04
Epoch 8288/100000
63/63 [=====] - 0s 3ms/step - loss: 4.2193e-04 -
val_loss: 6.1990e-04
Epoch 8289/100000
63/63 [=====] - 0s 4ms/step - loss: 5.5734e-04 -

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val_loss: 5.7478e-04
Epoch 8290/100000
63/63 [=====] - 0s 3ms/step - loss: 4.7005e-04 -
val_loss: 5.6250e-04
Epoch 8291/100000
45/63 [=====>...] - ETA: 0s - loss: 5.3377e-04Epoch 08290:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 5.1537e-04 -
val_loss: 3.5502e-04
Epoch 8292/100000
63/63 [=====] - 0s 4ms/step - loss: 3.2241e-04 -
val_loss: 5.6636e-04
Epoch 8293/100000
59/63 [=====>..] - ETA: 0s - loss: 2.9944e-04Epoch 08292:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 2.9477e-04 -
val_loss: 3.4080e-04
Epoch 8294/100000
63/63 [=====] - 0s 4ms/step - loss: 3.6279e-04 -
val_loss: 6.4280e-04
Epoch 8295/100000
52/63 [=====>...] - ETA: 0s - loss: 3.3462e-04Epoch 08294:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 3.4706e-04 -
val_loss: 4.4032e-04
Epoch 8296/100000
57/63 [=====>...] - ETA: 0s - loss: 4.4705e-04Epoch 08295:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 4.3636e-04 -
val_loss: 3.5680e-04
Epoch 8297/100000
49/63 [=====>...] - ETA: 0s - loss: 3.4613e-04Epoch 08296:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 3.7764e-04 -
val_loss: 3.5647e-04
Epoch 8298/100000
63/63 [=====] - 0s 4ms/step - loss: 4.8836e-04 -
val_loss: 6.3722e-04
Epoch 8299/100000
54/63 [=====>...] - ETA: 0s - loss: 4.0792e-04Epoch 08298:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.0726e-04 -
val_loss: 4.5371e-04
Epoch 8300/100000
51/63 [=====>...] - ETA: 0s - loss: 3.5606e-04Epoch 08299:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 3.6147e-04 -
val_loss: 2.1619e-04

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Epoch 8301/100000  
63/63 [=====] - 0s 3ms/step - loss: 5.3241e-04 -  
val\_loss: 6.8241e-04  
Epoch 8302/100000  
60/63 [=====>..] - ETA: 0s - loss: 5.1610e-04Epoch 08301:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 5.0360e-04 -  
val\_loss: 4.7886e-04  
Epoch 8303/100000  
60/63 [=====>..] - ETA: 0s - loss: 3.9694e-04Epoch 08302:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 4.1650e-04 -  
val\_loss: 4.1326e-04  
Epoch 8304/100000  
63/63 [=====] - 0s 4ms/step - loss: 4.6015e-04 -  
val\_loss: 5.4809e-04  
Epoch 8305/100000  
58/63 [=====>...] - ETA: 0s - loss: 3.6850e-04Epoch 08304:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 4.0081e-04 -  
val\_loss: 4.0506e-04  
Epoch 8306/100000  
62/63 [=====>.] - ETA: 0s - loss: 4.4032e-04Epoch 08305:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 4.4018e-04 -  
val\_loss: 4.2861e-04  
Epoch 8307/100000  
57/63 [=====>...] - ETA: 0s - loss: 4.7345e-04Epoch 08306:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 4.6264e-04 -  
val\_loss: 3.9343e-04  
Epoch 8308/100000  
59/63 [=====>..] - ETA: 0s - loss: 3.9524e-04Epoch 08307:  
early stopping THR  
63/63 [=====] - 0s 3ms/step - loss: 4.2021e-04 -  
val\_loss: 3.4545e-04  
Epoch 8309/100000  
57/63 [=====>...] - ETA: 0s - loss: 3.2094e-04Epoch 08308:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 3.1113e-04 -  
val\_loss: 3.9914e-04  
Epoch 8310/100000  
45/63 [=====>...] - ETA: 0s - loss: 2.9503e-04Epoch 08309:  
early stopping THR  
63/63 [=====] - 0s 3ms/step - loss: 3.0906e-04 -  
val\_loss: 4.0208e-04  
Epoch 8311/100000  
41/63 [=====>...] - ETA: 0s - loss: 2.8471e-04Epoch 08310:

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early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 2.6099e-04 -
val_loss: 3.8589e-04
Epoch 8312/100000
57/63 [=====>...] - ETA: 0s - loss: 4.9826e-04Epoch 08311:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.0229e-04 -
val_loss: 4.2488e-04
Epoch 8313/100000
44/63 [=====>...] - ETA: 0s - loss: 5.5266e-04Epoch 08312:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.5269e-04 -
val_loss: 3.5838e-04
Epoch 8314/100000
63/63 [=====] - 0s 4ms/step - loss: 3.9374e-04 -
val_loss: 5.9133e-04
Epoch 8315/100000
63/63 [=====] - 0s 4ms/step - loss: 5.6941e-04 -
val_loss: 5.1982e-04
Epoch 8316/100000
63/63 [=====] - 0s 3ms/step - loss: 4.5120e-04 -
val_loss: 5.8588e-04
Epoch 8317/100000
58/63 [=====>...] - ETA: 0s - loss: 2.7398e-04Epoch 08316:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 2.7221e-04 -
val_loss: 3.0501e-04
Epoch 8318/100000
63/63 [=====] - 0s 3ms/step - loss: 4.2544e-04 -
val_loss: 6.1744e-04
Epoch 8319/100000
46/63 [=====>...] - ETA: 0s - loss: 3.5381e-04Epoch 08318:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 3.7441e-04 -
val_loss: 1.6913e-04
Epoch 8320/100000
43/63 [=====>...] - ETA: 0s - loss: 5.6114e-04Epoch 08319:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.7462e-04 -
val_loss: 3.0528e-04
Epoch 8321/100000
63/63 [=====] - 0s 4ms/step - loss: 4.4731e-04 -
val_loss: 5.2053e-04
Epoch 8322/100000
42/63 [=====>...] - ETA: 0s - loss: 4.7589e-04Epoch 08321:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 5.3261e-04 -
val_loss: 2.5771e-04

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Epoch 8323/100000  
43/63 [=====>...] - ETA: 0s - loss: 4.1094e-04Epoch 08322:  
early stopping THR  
63/63 [=====] - 0s 3ms/step - loss: 3.8906e-04 -  
val\_loss: 3.0785e-04  
Epoch 8324/100000  
45/63 [=====>...] - ETA: 0s - loss: 3.2301e-04Epoch 08323:  
early stopping THR  
63/63 [=====] - 0s 3ms/step - loss: 3.4268e-04 -  
val\_loss: 4.4884e-04  
Epoch 8325/100000  
56/63 [=====>...] - ETA: 0s - loss: 4.4093e-04Epoch 08324:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 4.6399e-04 -  
val\_loss: 3.0435e-04  
Epoch 8326/100000  
55/63 [=====>...] - ETA: 0s - loss: 4.5189e-04Epoch 08325:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 4.8393e-04 -  
val\_loss: 4.6987e-04  
Epoch 8327/100000  
63/63 [=====] - 0s 4ms/step - loss: 6.4051e-04 -  
val\_loss: 5.0787e-04  
Epoch 8328/100000  
52/63 [=====>...] - ETA: 0s - loss: 4.7417e-04Epoch 08327:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 4.4113e-04 -  
val\_loss: 2.9344e-04  
Epoch 8329/100000  
63/63 [=====] - 0s 4ms/step - loss: 4.2077e-04 -  
val\_loss: 6.3187e-04  
Epoch 8330/100000  
60/63 [=====>..] - ETA: 0s - loss: 4.5130e-04Epoch 08329:  
early stopping THR  
63/63 [=====] - 0s 3ms/step - loss: 4.5604e-04 -  
val\_loss: 2.0957e-04  
Epoch 8331/100000  
51/63 [=====>...] - ETA: 0s - loss: 6.2525e-04Epoch 08330:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 6.1863e-04 -  
val\_loss: 4.2663e-04  
Epoch 8332/100000  
63/63 [=====] - 0s 4ms/step - loss: 5.2345e-04 -  
val\_loss: 5.0718e-04  
Epoch 8333/100000  
57/63 [=====>...] - ETA: 0s - loss: 4.1733e-04Epoch 08332:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 4.0756e-04 -

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val_loss: 3.9284e-04
Epoch 8334/100000
57/63 [=====>...] - ETA: 0s - loss: 4.6924e-04Epoch 08333:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 4.7778e-04 -
val_loss: 3.6839e-04
Epoch 8335/100000
42/63 [=====>...] - ETA: 0s - loss: 4.3941e-04Epoch 08334:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 4.3369e-04 -
val_loss: 2.7200e-04
Epoch 8336/100000
62/63 [=====>.] - ETA: 0s - loss: 5.2044e-04Epoch 08335:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 5.2054e-04 -
val_loss: 3.4771e-04
Epoch 8337/100000
46/63 [=====>...] - ETA: 0s - loss: 5.3648e-04Epoch 08336:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 5.1804e-04 -
val_loss: 4.7037e-04
Epoch 8338/100000
62/63 [=====>.] - ETA: 0s - loss: 5.6958e-04Epoch 08337:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 5.6888e-04 -
val_loss: 3.9098e-04
Epoch 8339/100000
63/63 [=====] - ETA: 0s - loss: 5.4455e-04Epoch 08338:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 5.4455e-04 -
val_loss: 4.4589e-04
Epoch 8340/100000
58/63 [=====>...] - ETA: 0s - loss: 4.5584e-04Epoch 08339:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 4.8671e-04 -
val_loss: 3.9347e-04
Epoch 8341/100000
46/63 [=====>...] - ETA: 0s - loss: 4.1953e-04Epoch 08340:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 4.0677e-04 -
val_loss: 3.8524e-04
Epoch 8342/100000
63/63 [=====] - 0s 3ms/step - loss: 4.1538e-04 -
val_loss: 5.1344e-04
Epoch 8343/100000
60/63 [=====>..] - ETA: 0s - loss: 5.1868e-04Epoch 08342:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.2555e-04 -

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val_loss: 4.9996e-04
Epoch 8344/100000
57/63 [=====>...] - ETA: 0s - loss: 3.1459e-04Epoch 08343:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 3.0563e-04 -
val_loss: 3.5868e-04
Epoch 8345/100000
44/63 [=====>...] - ETA: 0s - loss: 3.6267e-04Epoch 08344:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 3.0132e-04 -
val_loss: 4.4800e-04
Epoch 8346/100000
56/63 [=====>...] - ETA: 0s - loss: 4.3584e-04Epoch 08345:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.2747e-04 -
val_loss: 4.2005e-04
Epoch 8347/100000
63/63 [=====] - 0s 3ms/step - loss: 4.9013e-04 -
val_loss: 6.5185e-04
Epoch 8348/100000
45/63 [=====>...] - ETA: 0s - loss: 5.2811e-04Epoch 08347:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 4.8912e-04 -
val_loss: 3.4560e-04
Epoch 8349/100000
63/63 [=====] - ETA: 0s - loss: 5.5233e-04Epoch 08348:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 5.5233e-04 -
val_loss: 4.7154e-04
Epoch 8350/100000
46/63 [=====>...] - ETA: 0s - loss: 3.5323e-04Epoch 08349:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 4.5696e-04 -
val_loss: 4.5242e-04
Epoch 8351/100000
54/63 [=====>...] - ETA: 0s - loss: 3.7185e-04Epoch 08350:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 3.6070e-04 -
val_loss: 2.1642e-04
Epoch 8352/100000
59/63 [=====>..] - ETA: 0s - loss: 4.3502e-04Epoch 08351:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.5008e-04 -
val_loss: 4.4704e-04
Epoch 8353/100000
52/63 [=====>...] - ETA: 0s - loss: 6.1306e-04Epoch 08352:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.6694e-04 -

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val_loss: 4.5784e-04
Epoch 8354/100000
54/63 [=====>...] - ETA: 0s - loss: 5.7349e-04Epoch 08353:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.7811e-04 -
val_loss: 4.3940e-04
Epoch 8355/100000
63/63 [=====] - 0s 5ms/step - loss: 4.4564e-04 -
val_loss: 6.5618e-04
Epoch 8356/100000
58/63 [=====>...] - ETA: 0s - loss: 3.4744e-04Epoch 08355:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 3.5242e-04 -
val_loss: 3.6318e-04
Epoch 8357/100000
63/63 [=====] - 0s 3ms/step - loss: 3.6155e-04 -
val_loss: 5.2077e-04
Epoch 8358/100000
63/63 [=====] - 0s 4ms/step - loss: 5.7791e-04 -
val_loss: 0.0011
Epoch 8359/100000
49/63 [=====>...] - ETA: 0s - loss: 5.3925e-04Epoch 08358:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.1708e-04 -
val_loss: 4.5982e-04
Epoch 8360/100000
55/63 [=====>...] - ETA: 0s - loss: 4.6371e-04Epoch 08359:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.2804e-04 -
val_loss: 2.9786e-04
Epoch 8361/100000
63/63 [=====] - 0s 4ms/step - loss: 3.7907e-04 -
val_loss: 5.1762e-04
Epoch 8362/100000
63/63 [=====] - 0s 3ms/step - loss: 5.8068e-04 -
val_loss: 6.4870e-04
Epoch 8363/100000
57/63 [=====>...] - ETA: 0s - loss: 4.0496e-04Epoch 08362:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.0859e-04 -
val_loss: 4.0411e-04
Epoch 8364/100000
52/63 [=====>...] - ETA: 0s - loss: 3.0363e-04Epoch 08363:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 3.3933e-04 -
val_loss: 4.6127e-04
Epoch 8365/100000
60/63 [=====>..] - ETA: 0s - loss: 4.0787e-04Epoch 08364:

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early stopping THR
63/63 [=====] - 0s 5ms/step - loss: 4.0635e-04 -
val_loss: 4.8994e-04
Epoch 8366/100000
50/63 [=====>...] - ETA: 0s - loss: 3.2888e-04Epoch 08365:
early stopping THR
63/63 [=====] - 0s 5ms/step - loss: 3.6517e-04 -
val_loss: 1.9304e-04
Epoch 8367/100000
46/63 [=====>...] - ETA: 0s - loss: 4.4650e-04Epoch 08366:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.2661e-04 -
val_loss: 4.9781e-04
Epoch 8368/100000
42/63 [=====>...] - ETA: 0s - loss: 5.4101e-04Epoch 08367:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 5.3018e-04 -
val_loss: 2.7759e-04
Epoch 8369/100000
63/63 [=====] - 0s 3ms/step - loss: 5.2583e-04 -
val_loss: 6.2804e-04
Epoch 8370/100000
62/63 [=====>.] - ETA: 0s - loss: 4.7664e-04Epoch 08369:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 4.7396e-04 -
val_loss: 2.4455e-04
Epoch 8371/100000
59/63 [=====>..] - ETA: 0s - loss: 3.8272e-04Epoch 08370:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 3.8974e-04 -
val_loss: 3.6737e-04
Epoch 8372/100000
60/63 [=====>..] - ETA: 0s - loss: 3.6819e-04Epoch 08371:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 3.9086e-04 -
val_loss: 4.9444e-04
Epoch 8373/100000
53/63 [=====>...] - ETA: 0s - loss: 3.8856e-04Epoch 08372:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 3.9772e-04 -
val_loss: 1.8818e-04
Epoch 8374/100000
59/63 [=====>..] - ETA: 0s - loss: 4.0364e-04Epoch 08373:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 3.9296e-04 -
val_loss: 2.2355e-04
Epoch 8375/100000
53/63 [=====>...] - ETA: 0s - loss: 4.5519e-04Epoch 08374:

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early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.9367e-04 -
val_loss: 4.2979e-04
Epoch 8376/100000
51/63 [=====>...] - ETA: 0s - loss: 3.4227e-04Epoch 08375:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 3.6079e-04 -
val_loss: 2.8268e-04
Epoch 8377/100000
61/63 [=====>.] - ETA: 0s - loss: 3.9743e-04Epoch 08376:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 3.9241e-04 -
val_loss: 3.9413e-04
Epoch 8378/100000
63/63 [=====] - 0s 3ms/step - loss: 4.7356e-04 -
val_loss: 5.0096e-04
Epoch 8379/100000
62/63 [=====>.] - ETA: 0s - loss: 8.0383e-04Epoch 08378:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 7.9923e-04 -
val_loss: 1.6715e-04
Epoch 8380/100000
62/63 [=====>.] - ETA: 0s - loss: 3.8840e-04Epoch 08379:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 3.8805e-04 -
val_loss: 2.6987e-04
Epoch 8381/100000
58/63 [=====>...] - ETA: 0s - loss: 4.2436e-04Epoch 08380:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.4134e-04 -
val_loss: 2.7225e-04
Epoch 8382/100000
57/63 [=====>...] - ETA: 0s - loss: 3.7817e-04Epoch 08381:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 3.8909e-04 -
val_loss: 2.8278e-04
Epoch 8383/100000
52/63 [=====>...] - ETA: 0s - loss: 4.2736e-04Epoch 08382:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.1156e-04 -
val_loss: 3.1962e-04
Epoch 8384/100000
63/63 [=====] - 0s 4ms/step - loss: 4.1899e-04 -
val_loss: 0.0013
Epoch 8385/100000
57/63 [=====>...] - ETA: 0s - loss: 6.3180e-04Epoch 08384:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 6.3140e-04 -

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val_loss: 4.0633e-04
Epoch 8386/100000
47/63 [=====>...] - ETA: 0s - loss: 5.0078e-04Epoch 08385:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 4.3968e-04 -
val_loss: 3.1824e-04
Epoch 8387/100000
61/63 [=====>.] - ETA: 0s - loss: 3.7617e-04Epoch 08386:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 3.7228e-04 -
val_loss: 3.0640e-04
Epoch 8388/100000
58/63 [=====>...] - ETA: 0s - loss: 3.9497e-04Epoch 08387:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 3.8665e-04 -
val_loss: 3.8156e-04
Epoch 8389/100000
63/63 [=====] - 0s 3ms/step - loss: 5.6352e-04 -
val_loss: 6.4230e-04
Epoch 8390/100000
63/63 [=====] - 0s 4ms/step - loss: 4.9693e-04 -
val_loss: 5.3507e-04
Epoch 8391/100000
49/63 [=====>...] - ETA: 0s - loss: 4.8984e-04Epoch 08390:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.6834e-04 -
val_loss: 3.1869e-04
Epoch 8392/100000
53/63 [=====>...] - ETA: 0s - loss: 3.2192e-04Epoch 08391:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 3.6381e-04 -
val_loss: 3.2632e-04
Epoch 8393/100000
56/63 [=====>...] - ETA: 0s - loss: 3.5830e-04Epoch 08392:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 3.4532e-04 -
val_loss: 4.9300e-04
Epoch 8394/100000
57/63 [=====>...] - ETA: 0s - loss: 3.2912e-04Epoch 08393:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 3.1766e-04 -
val_loss: 4.2777e-04
Epoch 8395/100000
57/63 [=====>...] - ETA: 0s - loss: 6.2494e-04Epoch 08394:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 6.1146e-04 -
val_loss: 3.9461e-04
Epoch 8396/100000

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60/63 [=====>..] - ETA: 0s - loss: 5.7586e-04Epoch 08395:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 5.6551e-04 -
val_loss: 3.9345e-04
Epoch 8397/100000
63/63 [=====] - 0s 3ms/step - loss: 5.4816e-04 -
val_loss: 5.4617e-04
Epoch 8398/100000
63/63 [=====] - 0s 3ms/step - loss: 5.1135e-04 -
val_loss: 6.0458e-04
Epoch 8399/100000
59/63 [=====>..] - ETA: 0s - loss: 5.3206e-04Epoch 08398:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 5.1382e-04 -
val_loss: 4.7322e-04
Epoch 8400/100000
63/63 [=====] - 0s 4ms/step - loss: 4.5408e-04 -
val_loss: 6.3404e-04
Epoch 8401/100000
63/63 [=====] - 0s 4ms/step - loss: 3.8267e-04 -
val_loss: 5.1889e-04
Epoch 8402/100000
63/63 [=====] - 0s 4ms/step - loss: 4.4362e-04 -
val_loss: 5.5995e-04
Epoch 8403/100000
59/63 [=====>..] - ETA: 0s - loss: 4.4896e-04Epoch 08402:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 4.4308e-04 -
val_loss: 4.6080e-04
Epoch 8404/100000
51/63 [=====>...] - ETA: 0s - loss: 3.6608e-04Epoch 08403:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 3.5789e-04 -
val_loss: 4.8737e-04
Epoch 8405/100000
61/63 [=====>..] - ETA: 0s - loss: 5.5084e-04Epoch 08404:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 5.4301e-04 -
val_loss: 4.8396e-04
Epoch 8406/100000
63/63 [=====] - 0s 4ms/step - loss: 3.7854e-04 -
val_loss: 5.2742e-04
Epoch 8407/100000
63/63 [=====] - 0s 3ms/step - loss: 4.3655e-04 -
val_loss: 5.6650e-04
Epoch 8408/100000
55/63 [=====>...] - ETA: 0s - loss: 3.7220e-04Epoch 08407:
early stopping THR

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63/63 [=====] - 0s 3ms/step - loss: 4.2001e-04 -
val_loss: 4.7322e-04
Epoch 8409/100000
63/63 [=====] - 0s 4ms/step - loss: 4.6140e-04 -
val_loss: 6.4679e-04
Epoch 8410/100000
63/63 [=====] - 0s 3ms/step - loss: 4.0334e-04 -
val_loss: 5.3042e-04
Epoch 8411/100000
63/63 [=====] - 0s 4ms/step - loss: 4.2229e-04 -
val_loss: 5.8976e-04
Epoch 8412/100000
63/63 [=====] - 0s 3ms/step - loss: 5.0635e-04 -
val_loss: 9.0733e-04
Epoch 8413/100000
63/63 [=====] - 0s 4ms/step - loss: 4.9381e-04 -
val_loss: 0.0013
Epoch 8414/100000
50/63 [=====>...] - ETA: 0s - loss: 4.9966e-04Epoch 08413:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.4477e-04 -
val_loss: 3.2489e-04
Epoch 8415/100000
63/63 [=====] - 0s 4ms/step - loss: 3.7948e-04 -
val_loss: 6.7610e-04
Epoch 8416/100000
63/63 [=====] - 0s 3ms/step - loss: 3.6594e-04 -
val_loss: 6.8212e-04
Epoch 8417/100000
63/63 [=====] - 0s 4ms/step - loss: 3.7345e-04 -
val_loss: 6.4041e-04
Epoch 8418/100000
63/63 [=====] - 0s 3ms/step - loss: 5.8017e-04 -
val_loss: 9.0806e-04
Epoch 8419/100000
63/63 [=====] - 0s 4ms/step - loss: 5.8064e-04 -
val_loss: 8.1471e-04
Epoch 8420/100000
63/63 [=====] - 0s 4ms/step - loss: 4.6848e-04 -
val_loss: 7.9091e-04
Epoch 8421/100000
63/63 [=====] - 0s 3ms/step - loss: 5.1199e-04 -
val_loss: 6.9452e-04
Epoch 8422/100000
63/63 [=====] - 0s 3ms/step - loss: 3.4572e-04 -
val_loss: 5.9847e-04
Epoch 8423/100000
63/63 [=====] - 0s 3ms/step - loss: 3.2682e-04 -

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val_loss: 7.1812e-04
Epoch 8424/100000
43/63 [=====>...] - ETA: 0s - loss: 3.7244e-04Epoch 08423:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 4.3502e-04 -
val_loss: 4.7739e-04
Epoch 8425/100000
61/63 [=====>.] - ETA: 0s - loss: 5.9536e-04Epoch 08424:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 6.0868e-04 -
val_loss: 4.3540e-04
Epoch 8426/100000
63/63 [=====] - 0s 3ms/step - loss: 5.7286e-04 -
val_loss: 0.0010
Epoch 8427/100000
63/63 [=====] - 0s 4ms/step - loss: 4.3834e-04 -
val_loss: 5.8690e-04
Epoch 8428/100000
51/63 [=====>...] - ETA: 0s - loss: 4.8596e-04Epoch 08427:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.6468e-04 -
val_loss: 4.4955e-04
Epoch 8429/100000
58/63 [=====>...] - ETA: 0s - loss: 5.0635e-04Epoch 08428:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 4.9626e-04 -
val_loss: 4.0346e-04
Epoch 8430/100000
63/63 [=====] - 0s 3ms/step - loss: 5.2065e-04 -
val_loss: 5.9528e-04
Epoch 8431/100000
63/63 [=====] - 0s 3ms/step - loss: 5.2402e-04 -
val_loss: 7.1105e-04
Epoch 8432/100000
59/63 [=====>..] - ETA: 0s - loss: 3.2157e-04Epoch 08431:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 3.1726e-04 -
val_loss: 4.5656e-04
Epoch 8433/100000
58/63 [=====>...] - ETA: 0s - loss: 4.1198e-04Epoch 08432:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 4.2253e-04 -
val_loss: 4.6981e-04
Epoch 8434/100000
63/63 [=====] - 0s 3ms/step - loss: 6.5972e-04 -
val_loss: 5.9030e-04
Epoch 8435/100000
63/63 [=====] - 0s 3ms/step - loss: 5.2564e-04 -

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val_loss: 5.6621e-04
Epoch 8436/100000
63/63 [=====] - 0s 3ms/step - loss: 9.1489e-04 -
val_loss: 0.0016
Epoch 8437/100000
63/63 [=====] - 0s 3ms/step - loss: 0.0010 - val_loss:
7.7030e-04
Epoch 8438/100000
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val_loss:
0.0015
Epoch 8439/100000
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val_loss:
7.0068e-04
Epoch 8440/100000
63/63 [=====] - 0s 3ms/step - loss: 9.5235e-04 -
val_loss: 9.7948e-04
Epoch 8441/100000
63/63 [=====] - 0s 3ms/step - loss: 9.7651e-04 -
val_loss: 7.6388e-04
Epoch 8442/100000
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val_loss:
0.0013
Epoch 8443/100000
63/63 [=====] - 0s 3ms/step - loss: 0.0010 - val_loss:
7.6414e-04
Epoch 8444/100000
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val_loss:
9.5608e-04
Epoch 8445/100000
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val_loss:
8.6027e-04
Epoch 8446/100000
63/63 [=====] - 0s 3ms/step - loss: 0.0010 - val_loss:
0.0011
Epoch 8447/100000
63/63 [=====] - 0s 4ms/step - loss: 7.5372e-04 -
val_loss: 8.8801e-04
Epoch 8448/100000
63/63 [=====] - 0s 4ms/step - loss: 8.9283e-04 -
val_loss: 0.0011
Epoch 8449/100000
63/63 [=====] - 0s 4ms/step - loss: 9.1736e-04 -
val_loss: 7.5925e-04
Epoch 8450/100000
63/63 [=====] - 0s 4ms/step - loss: 8.0146e-04 -
val_loss: 7.0685e-04
Epoch 8451/100000
63/63 [=====] - 0s 3ms/step - loss: 8.8046e-04 -

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val_loss: 7.4760e-04
Epoch 8452/100000
63/63 [=====] - 0s 4ms/step - loss: 0.0010 - val_loss:
0.0014
Epoch 8453/100000
54/63 [=====>...] - ETA: 0s - loss: 8.3455e-04Epoch 08452:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 8.1499e-04 -
val_loss: 4.3152e-04
Epoch 8454/100000
63/63 [=====] - 0s 4ms/step - loss: 0.0014 - val_loss:
0.0022
Epoch 8455/100000
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val_loss:
0.0013
Epoch 8456/100000
63/63 [=====] - 0s 4ms/step - loss: 0.0013 - val_loss:
0.0011
Epoch 8457/100000
63/63 [=====] - 0s 4ms/step - loss: 9.1425e-04 -
val_loss: 5.4799e-04
Epoch 8458/100000
63/63 [=====] - 0s 4ms/step - loss: 9.2859e-04 -
val_loss: 0.0011
Epoch 8459/100000
63/63 [=====] - 0s 4ms/step - loss: 9.6885e-04 -
val_loss: 0.0011
Epoch 8460/100000
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val_loss:
0.0013
Epoch 8461/100000
63/63 [=====] - 0s 4ms/step - loss: 0.0014 - val_loss:
9.0787e-04
Epoch 8462/100000
63/63 [=====] - 0s 3ms/step - loss: 9.0583e-04 -
val_loss: 8.3107e-04
Epoch 8463/100000
63/63 [=====] - 0s 5ms/step - loss: 0.0012 - val_loss:
8.9224e-04
Epoch 8464/100000
63/63 [=====] - 0s 5ms/step - loss: 8.5072e-04 -
val_loss: 8.3943e-04
Epoch 8465/100000
63/63 [=====] - 0s 5ms/step - loss: 8.5018e-04 -
val_loss: 8.3317e-04
Epoch 8466/100000
63/63 [=====] - 0s 4ms/step - loss: 8.3153e-04 -
val_loss: 7.9663e-04

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Epoch 8467/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val\_loss: 0.0022

Epoch 8468/100000  
63/63 [=====] - 0s 3ms/step - loss: 0.0014 - val\_loss: 9.3099e-04

Epoch 8469/100000  
63/63 [=====] - 0s 4ms/step - loss: 0.0010 - val\_loss: 9.7169e-04

Epoch 8470/100000  
63/63 [=====] - 0s 3ms/step - loss: 9.0311e-04 - val\_loss: 5.4244e-04

Epoch 8471/100000  
63/63 [=====] - 0s 3ms/step - loss: 7.0130e-04 - val\_loss: 6.2974e-04

Epoch 8472/100000  
63/63 [=====] - 0s 4ms/step - loss: 7.8900e-04 - val\_loss: 5.6161e-04

Epoch 8473/100000  
59/63 [=====>..] - ETA: 0s - loss: 6.8811e-04Epoch 08472: early stopping THR  
63/63 [=====] - 0s 3ms/step - loss: 6.8052e-04 - val\_loss: 4.5445e-04

Epoch 8474/100000  
63/63 [=====] - 0s 3ms/step - loss: 8.2018e-04 - val\_loss: 5.4164e-04

Epoch 8475/100000  
55/63 [=====>...] - ETA: 0s - loss: 6.5863e-04Epoch 08474: early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 6.2621e-04 - val\_loss: 4.5371e-04

Epoch 8476/100000  
63/63 [=====] - 0s 4ms/step - loss: 6.6176e-04 - val\_loss: 5.3197e-04

Epoch 8477/100000  
63/63 [=====] - 0s 3ms/step - loss: 6.6854e-04 - val\_loss: 5.9068e-04

Epoch 8478/100000  
63/63 [=====] - 0s 3ms/step - loss: 6.1475e-04 - val\_loss: 5.8887e-04

Epoch 8479/100000  
63/63 [=====] - 0s 4ms/step - loss: 6.7770e-04 - val\_loss: 7.3617e-04

Epoch 8480/100000  
63/63 [=====] - 0s 3ms/step - loss: 6.8161e-04 - val\_loss: 7.2992e-04

Epoch 8481/100000  
63/63 [=====] - 0s 4ms/step - loss: 7.5094e-04 -

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val_loss: 5.7844e-04
Epoch 8482/100000
63/63 [=====] - 0s 3ms/step - loss: 7.5358e-04 -
val_loss: 5.8591e-04
Epoch 8483/100000
63/63 [=====] - 0s 4ms/step - loss: 7.2780e-04 -
val_loss: 8.2381e-04
Epoch 8484/100000
63/63 [=====] - 0s 3ms/step - loss: 7.6147e-04 -
val_loss: 6.4001e-04
Epoch 8485/100000
63/63 [=====] - 0s 4ms/step - loss: 7.9927e-04 -
val_loss: 7.7651e-04
Epoch 8486/100000
63/63 [=====] - 0s 4ms/step - loss: 8.2941e-04 -
val_loss: 6.2525e-04
Epoch 8487/100000
63/63 [=====] - 0s 4ms/step - loss: 6.6544e-04 -
val_loss: 6.3310e-04
Epoch 8488/100000
63/63 [=====] - 0s 3ms/step - loss: 7.4950e-04 -
val_loss: 5.6431e-04
Epoch 8489/100000
63/63 [=====] - 0s 4ms/step - loss: 6.8887e-04 -
val_loss: 5.0447e-04
Epoch 8490/100000
54/63 [=====>...] - ETA: 0s - loss: 6.4652e-04Epoch 08489:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 6.3315e-04 -
val_loss: 4.3588e-04
Epoch 8491/100000
57/63 [=====>...] - ETA: 0s - loss: 6.5898e-04Epoch 08490:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 6.5982e-04 -
val_loss: 4.7448e-04
Epoch 8492/100000
63/63 [=====] - 0s 5ms/step - loss: 6.1469e-04 -
val_loss: 5.3018e-04
Epoch 8493/100000
63/63 [=====] - 0s 4ms/step - loss: 6.5716e-04 -
val_loss: 6.5604e-04
Epoch 8494/100000
55/63 [=====>...] - ETA: 0s - loss: 6.2298e-04Epoch 08493:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.9267e-04 -
val_loss: 4.7470e-04
Epoch 8495/100000
63/63 [=====] - 0s 3ms/step - loss: 6.1465e-04 -

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val_loss: 6.5049e-04
Epoch 8496/100000
63/63 [=====] - 0s 3ms/step - loss: 7.0795e-04 -
val_loss: 6.2383e-04
Epoch 8497/100000
63/63 [=====] - 0s 4ms/step - loss: 5.2121e-04 -
val_loss: 5.8810e-04
Epoch 8498/100000
63/63 [=====] - 0s 5ms/step - loss: 7.0758e-04 -
val_loss: 6.5386e-04
Epoch 8499/100000
63/63 [=====] - 0s 5ms/step - loss: 7.2961e-04 -
val_loss: 8.5065e-04
Epoch 8500/100000
63/63 [=====] - 0s 4ms/step - loss: 8.0384e-04 -
val_loss: 6.9046e-04
Epoch 8501/100000
63/63 [=====] - 0s 4ms/step - loss: 7.7186e-04 -
val_loss: 8.5056e-04
Epoch 8502/100000
63/63 [=====] - 0s 4ms/step - loss: 8.0585e-04 -
val_loss: 5.8856e-04
Epoch 8503/100000
63/63 [=====] - 0s 4ms/step - loss: 7.0284e-04 -
val_loss: 5.8531e-04
Epoch 8504/100000
63/63 [=====] - 0s 3ms/step - loss: 8.7624e-04 -
val_loss: 7.1284e-04
Epoch 8505/100000
63/63 [=====] - 0s 4ms/step - loss: 8.1269e-04 -
val_loss: 6.3524e-04
Epoch 8506/100000
62/63 [=====>.] - ETA: 0s - loss: 7.2684e-04Epoch 08505:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 7.2351e-04 -
val_loss: 4.5499e-04
Epoch 8507/100000
58/63 [=====>...] - ETA: 0s - loss: 5.4540e-04Epoch 08506:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.4053e-04 -
val_loss: 4.1032e-04
Epoch 8508/100000
63/63 [=====] - 0s 4ms/step - loss: 8.0047e-04 -
val_loss: 9.6632e-04
Epoch 8509/100000
63/63 [=====] - 0s 4ms/step - loss: 7.0417e-04 -
val_loss: 6.1294e-04
Epoch 8510/100000

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63/63 [=====] - 0s 4ms/step - loss: 3.4774e-04 -
val_loss: 6.2889e-04
Epoch 8511/100000
63/63 [=====] - 0s 3ms/step - loss: 3.8463e-04 -
val_loss: 5.2713e-04
Epoch 8512/100000
63/63 [=====] - 0s 4ms/step - loss: 4.1459e-04 -
val_loss: 0.0016
Epoch 8513/100000
63/63 [=====] - 0s 4ms/step - loss: 8.7118e-04 -
val_loss: 5.4038e-04
Epoch 8514/100000
63/63 [=====] - 0s 5ms/step - loss: 3.8790e-04 -
val_loss: 5.0852e-04
Epoch 8515/100000
55/63 [=====>...] - ETA: 0s - loss: 3.6198e-04Epoch 08514:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 3.7766e-04 -
val_loss: 4.0247e-04
Epoch 8516/100000
49/63 [=====>...] - ETA: 0s - loss: 5.0757e-04Epoch 08515:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.4783e-04 -
val_loss: 2.5252e-04
Epoch 8517/100000
57/63 [=====>...] - ETA: 0s - loss: 3.4717e-04Epoch 08516:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 3.5334e-04 -
val_loss: 2.8261e-04
Epoch 8518/100000
58/63 [=====>...] - ETA: 0s - loss: 3.7386e-04Epoch 08517:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 3.7283e-04 -
val_loss: 3.6521e-04
Epoch 8519/100000
60/63 [=====>..] - ETA: 0s - loss: 4.8073e-04Epoch 08518:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 5.0709e-04 -
val_loss: 2.9268e-04
Epoch 8520/100000
63/63 [=====] - 0s 3ms/step - loss: 5.1600e-04 -
val_loss: 6.2094e-04
Epoch 8521/100000
63/63 [=====] - 0s 3ms/step - loss: 6.8934e-04 -
val_loss: 5.7959e-04
Epoch 8522/100000
63/63 [=====] - 0s 3ms/step - loss: 6.4608e-04 -
val_loss: 7.7294e-04

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Epoch 8523/100000
63/63 [=====] - 0s 3ms/step - loss: 6.6563e-04 -
val_loss: 7.6076e-04
Epoch 8524/100000
63/63 [=====] - 0s 4ms/step - loss: 8.7784e-04 -
val_loss: 5.8886e-04
Epoch 8525/100000
63/63 [=====] - 0s 4ms/step - loss: 7.9871e-04 -
val_loss: 6.3111e-04
Epoch 8526/100000
63/63 [=====] - 0s 4ms/step - loss: 8.9329e-04 -
val_loss: 7.9292e-04
Epoch 8527/100000
63/63 [=====] - 0s 3ms/step - loss: 8.1472e-04 -
val_loss: 0.0013
Epoch 8528/100000
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val_loss:
0.0012
Epoch 8529/100000
63/63 [=====] - 0s 4ms/step - loss: 0.0014 - val_loss:
0.0013
Epoch 8530/100000
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val_loss:
8.7136e-04
Epoch 8531/100000
63/63 [=====] - 0s 3ms/step - loss: 7.9188e-04 -
val_loss: 0.0015
Epoch 8532/100000
63/63 [=====] - 0s 3ms/step - loss: 9.4519e-04 -
val_loss: 0.0013
Epoch 8533/100000
63/63 [=====] - 0s 5ms/step - loss: 8.2668e-04 -
val_loss: 5.8912e-04
Epoch 8534/100000
63/63 [=====] - 0s 5ms/step - loss: 7.9945e-04 -
val_loss: 6.4967e-04
Epoch 8535/100000
63/63 [=====] - 0s 3ms/step - loss: 7.6515e-04 -
val_loss: 7.5890e-04
Epoch 8536/100000
63/63 [=====] - 0s 4ms/step - loss: 7.3653e-04 -
val_loss: 6.4090e-04
Epoch 8537/100000
63/63 [=====] - 0s 4ms/step - loss: 7.4159e-04 -
val_loss: 5.3437e-04
Epoch 8538/100000
42/63 [=====>...] - ETA: 0s - loss: 7.6048e-04Epoch 08537:
early stopping THR

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63/63 [=====] - 0s 3ms/step - loss: 8.0221e-04 -
val_loss: 4.8090e-04
Epoch 8539/100000
63/63 [=====] - 0s 4ms/step - loss: 6.8722e-04 -
val_loss: 8.5065e-04
Epoch 8540/100000
63/63 [=====] - 0s 3ms/step - loss: 7.4774e-04 -
val_loss: 0.0011
Epoch 8541/100000
63/63 [=====] - 0s 3ms/step - loss: 7.2181e-04 -
val_loss: 6.7689e-04
Epoch 8542/100000
63/63 [=====] - 0s 4ms/step - loss: 6.2209e-04 -
val_loss: 5.8259e-04
Epoch 8543/100000
63/63 [=====] - 0s 4ms/step - loss: 7.5367e-04 -
val_loss: 0.0010
Epoch 8544/100000
63/63 [=====] - 0s 4ms/step - loss: 8.4039e-04 -
val_loss: 7.4143e-04
Epoch 8545/100000
59/63 [=====>..] - ETA: 0s - loss: 6.1881e-04Epoch 08544:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 6.4330e-04 -
val_loss: 4.0034e-04
Epoch 8546/100000
63/63 [=====] - 0s 3ms/step - loss: 6.3111e-04 -
val_loss: 8.7179e-04
Epoch 8547/100000
63/63 [=====] - 0s 4ms/step - loss: 6.8761e-04 -
val_loss: 6.5805e-04
Epoch 8548/100000
63/63 [=====] - 0s 4ms/step - loss: 6.8181e-04 -
val_loss: 5.4252e-04
Epoch 8549/100000
63/63 [=====] - 0s 4ms/step - loss: 7.9409e-04 -
val_loss: 6.3619e-04
Epoch 8550/100000
63/63 [=====] - 0s 4ms/step - loss: 8.1460e-04 -
val_loss: 0.0010
Epoch 8551/100000
63/63 [=====] - 0s 4ms/step - loss: 0.0015 - val_loss:
0.0023
Epoch 8552/100000
63/63 [=====] - 0s 4ms/step - loss: 0.0021 - val_loss:
0.0019
Epoch 8553/100000
63/63 [=====] - 0s 4ms/step - loss: 0.0018 - val_loss:

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0.0018
Epoch 8554/100000
63/63 [=====] - 0s 4ms/step - loss: 9.9905e-04 -
val_loss: 8.9125e-04
Epoch 8555/100000
63/63 [=====] - 0s 3ms/step - loss: 8.3246e-04 -
val_loss: 0.0012
Epoch 8556/100000
63/63 [=====] - 0s 3ms/step - loss: 9.0180e-04 -
val_loss: 7.4655e-04
Epoch 8557/100000
63/63 [=====] - 0s 3ms/step - loss: 8.0529e-04 -
val_loss: 7.0736e-04
Epoch 8558/100000
63/63 [=====] - 0s 4ms/step - loss: 7.7832e-04 -
val_loss: 5.3632e-04
Epoch 8559/100000
63/63 [=====] - 0s 4ms/step - loss: 7.4108e-04 -
val_loss: 6.9332e-04
Epoch 8560/100000
63/63 [=====] - 0s 4ms/step - loss: 6.9758e-04 -
val_loss: 6.6909e-04
Epoch 8561/100000
63/63 [=====] - 0s 4ms/step - loss: 6.7065e-04 -
val_loss: 7.0811e-04
Epoch 8562/100000
63/63 [=====] - 0s 4ms/step - loss: 8.6726e-04 -
val_loss: 5.1610e-04
Epoch 8563/100000
63/63 [=====] - 0s 6ms/step - loss: 7.3067e-04 -
val_loss: 6.5212e-04
Epoch 8564/100000
63/63 [=====] - 0s 4ms/step - loss: 9.8323e-04 -
val_loss: 7.5020e-04
Epoch 8565/100000
63/63 [=====] - 0s 4ms/step - loss: 9.3368e-04 -
val_loss: 0.0011
Epoch 8566/100000
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val_loss:
0.0016
Epoch 8567/100000
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val_loss:
0.0011
Epoch 8568/100000
63/63 [=====] - 0s 3ms/step - loss: 7.5750e-04 -
val_loss: 0.0010
Epoch 8569/100000
63/63 [=====] - 0s 3ms/step - loss: 8.4548e-04 -

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val_loss: 8.8391e-04
Epoch 8570/100000
63/63 [=====] - 0s 3ms/step - loss: 8.3801e-04 -
val_loss: 8.6507e-04
Epoch 8571/100000
63/63 [=====] - 0s 3ms/step - loss: 8.6354e-04 -
val_loss: 6.2301e-04
Epoch 8572/100000
63/63 [=====] - 0s 3ms/step - loss: 9.0683e-04 -
val_loss: 0.0011
Epoch 8573/100000
63/63 [=====] - 0s 4ms/step - loss: 7.9435e-04 -
val_loss: 7.2148e-04
Epoch 8574/100000
63/63 [=====] - 0s 3ms/step - loss: 7.4839e-04 -
val_loss: 9.7201e-04
Epoch 8575/100000
63/63 [=====] - 0s 3ms/step - loss: 7.2019e-04 -
val_loss: 6.8811e-04
Epoch 8576/100000
63/63 [=====] - 0s 3ms/step - loss: 0.0011 - val_loss:
0.0019
Epoch 8577/100000
63/63 [=====] - 0s 4ms/step - loss: 0.0013 - val_loss:
0.0010
Epoch 8578/100000
63/63 [=====] - 0s 3ms/step - loss: 9.4965e-04 -
val_loss: 0.0014
Epoch 8579/100000
63/63 [=====] - 0s 3ms/step - loss: 9.1253e-04 -
val_loss: 5.9916e-04
Epoch 8580/100000
63/63 [=====] - 0s 4ms/step - loss: 6.3020e-04 -
val_loss: 8.1159e-04
Epoch 8581/100000
63/63 [=====] - 0s 3ms/step - loss: 9.4294e-04 -
val_loss: 6.4891e-04
Epoch 8582/100000
63/63 [=====] - 0s 4ms/step - loss: 7.9734e-04 -
val_loss: 0.0011
Epoch 8583/100000
63/63 [=====] - 0s 4ms/step - loss: 7.3308e-04 -
val_loss: 5.7135e-04
Epoch 8584/100000
63/63 [=====] - 0s 4ms/step - loss: 6.9694e-04 -
val_loss: 6.4109e-04
Epoch 8585/100000
63/63 [=====] - 0s 3ms/step - loss: 9.7912e-04 -

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val_loss: 0.0011
Epoch 8586/100000
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val_loss:
0.0011
Epoch 8587/100000
63/63 [=====] - 0s 4ms/step - loss: 9.4985e-04 -
val_loss: 0.0010
Epoch 8588/100000
63/63 [=====] - 0s 4ms/step - loss: 8.3046e-04 -
val_loss: 9.2915e-04
Epoch 8589/100000
63/63 [=====] - 0s 4ms/step - loss: 0.0013 - val_loss:
0.0013
Epoch 8590/100000
63/63 [=====] - 0s 3ms/step - loss: 7.9574e-04 -
val_loss: 7.2437e-04
Epoch 8591/100000
63/63 [=====] - 0s 4ms/step - loss: 6.7863e-04 -
val_loss: 7.2640e-04
Epoch 8592/100000
63/63 [=====] - 0s 5ms/step - loss: 7.3629e-04 -
val_loss: 9.7647e-04
Epoch 8593/100000
63/63 [=====] - 0s 5ms/step - loss: 6.7628e-04 -
val_loss: 9.1424e-04
Epoch 8594/100000
63/63 [=====] - 0s 3ms/step - loss: 6.9581e-04 -
val_loss: 6.7005e-04
Epoch 8595/100000
63/63 [=====] - 0s 3ms/step - loss: 7.9741e-04 -
val_loss: 5.0113e-04
Epoch 8596/100000
63/63 [=====] - 0s 3ms/step - loss: 8.0012e-04 -
val_loss: 8.0686e-04
Epoch 8597/100000
63/63 [=====] - 0s 4ms/step - loss: 8.2989e-04 -
val_loss: 6.4924e-04
Epoch 8598/100000
63/63 [=====] - 0s 4ms/step - loss: 7.0071e-04 -
val_loss: 8.6903e-04
Epoch 8599/100000
63/63 [=====] - 0s 4ms/step - loss: 7.1772e-04 -
val_loss: 5.0843e-04
Epoch 8600/100000
63/63 [=====] - 0s 3ms/step - loss: 6.6584e-04 -
val_loss: 7.6374e-04
Epoch 8601/100000
63/63 [=====] - 0s 4ms/step - loss: 7.3996e-04 -
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val_loss: 7.3401e-04
Epoch 8602/100000
63/63 [=====] - 0s 3ms/step - loss: 9.0279e-04 -
val_loss: 6.8886e-04
Epoch 8603/100000
63/63 [=====] - 0s 3ms/step - loss: 7.0036e-04 -
val_loss: 8.4092e-04
Epoch 8604/100000
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val_loss:
0.0019
Epoch 8605/100000
63/63 [=====] - 0s 4ms/step - loss: 0.0017 - val_loss:
0.0020
Epoch 8606/100000
63/63 [=====] - 0s 3ms/step - loss: 0.0015 - val_loss:
0.0023
Epoch 8607/100000
63/63 [=====] - 0s 4ms/step - loss: 0.0015 - val_loss:
0.0016
Epoch 8608/100000
63/63 [=====] - 0s 3ms/step - loss: 0.0013 - val_loss:
0.0017
Epoch 8609/100000
63/63 [=====] - 0s 4ms/step - loss: 0.0014 - val_loss:
0.0018
Epoch 8610/100000
63/63 [=====] - 0s 4ms/step - loss: 0.0013 - val_loss:
0.0015
Epoch 8611/100000
63/63 [=====] - 0s 4ms/step - loss: 0.0012 - val_loss:
0.0017
Epoch 8612/100000
63/63 [=====] - 0s 3ms/step - loss: 0.0012 - val_loss:
0.0014
Epoch 8613/100000
63/63 [=====] - 0s 3ms/step - loss: 0.0010 - val_loss:
6.5803e-04
Epoch 8614/100000
63/63 [=====] - 0s 4ms/step - loss: 8.2967e-04 -
val_loss: 6.6244e-04
Epoch 8615/100000
63/63 [=====] - 0s 4ms/step - loss: 6.8623e-04 -
val_loss: 6.6044e-04
Epoch 8616/100000
63/63 [=====] - 0s 3ms/step - loss: 6.3765e-04 -
val_loss: 6.4774e-04
Epoch 8617/100000
63/63 [=====] - 0s 4ms/step - loss: 0.0011 - val_loss:

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0.0012

Epoch 8618/100000  
63/63 [=====] - 0s 3ms/step - loss: 6.9435e-04 -  
val\_loss: 6.3243e-04

Epoch 8619/100000  
63/63 [=====] - 0s 4ms/step - loss: 8.5358e-04 -  
val\_loss: 6.4053e-04

Epoch 8620/100000  
63/63 [=====] - 0s 5ms/step - loss: 6.1615e-04 -  
val\_loss: 6.2230e-04

Epoch 8621/100000  
63/63 [=====] - 0s 4ms/step - loss: 7.3352e-04 -  
val\_loss: 0.0011

Epoch 8622/100000  
63/63 [=====] - 0s 4ms/step - loss: 6.5939e-04 -  
val\_loss: 7.6859e-04

Epoch 8623/100000  
63/63 [=====] - 0s 3ms/step - loss: 7.4019e-04 -  
val\_loss: 0.0010

Epoch 8624/100000  
63/63 [=====] - 0s 4ms/step - loss: 7.4228e-04 -  
val\_loss: 7.1098e-04

Epoch 8625/100000  
63/63 [=====] - 0s 4ms/step - loss: 8.9254e-04 -  
val\_loss: 0.0012

Epoch 8626/100000  
63/63 [=====] - 0s 3ms/step - loss: 7.1517e-04 -  
val\_loss: 8.0843e-04

Epoch 8627/100000  
63/63 [=====] - 0s 3ms/step - loss: 7.2194e-04 -  
val\_loss: 0.0012

Epoch 8628/100000  
63/63 [=====] - 0s 4ms/step - loss: 7.3505e-04 -  
val\_loss: 6.5607e-04

Epoch 8629/100000  
63/63 [=====] - 0s 4ms/step - loss: 7.4348e-04 -  
val\_loss: 9.7289e-04

Epoch 8630/100000  
63/63 [=====] - 0s 5ms/step - loss: 7.3161e-04 -  
val\_loss: 6.3441e-04

Epoch 8631/100000  
63/63 [=====] - 0s 4ms/step - loss: 8.8449e-04 -  
val\_loss: 7.2895e-04

Epoch 8632/100000  
63/63 [=====] - 0s 4ms/step - loss: 8.0538e-04 -  
val\_loss: 6.9788e-04

Epoch 8633/100000  
63/63 [=====] - 0s 4ms/step - loss: 8.0199e-04 -

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val_loss: 8.0211e-04
Epoch 8634/100000
63/63 [=====] - 0s 4ms/step - loss: 7.4288e-04 -
val_loss: 5.4965e-04
Epoch 8635/100000
63/63 [=====] - ETA: 0s - loss: 7.0405e-04Epoch 08634:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 7.0405e-04 -
val_loss: 4.9115e-04
Epoch 8636/100000
63/63 [=====] - 0s 3ms/step - loss: 8.6358e-04 -
val_loss: 8.7281e-04
Epoch 8637/100000
63/63 [=====] - 0s 3ms/step - loss: 8.1579e-04 -
val_loss: 5.6222e-04
Epoch 8638/100000
63/63 [=====] - 0s 3ms/step - loss: 9.1794e-04 -
val_loss: 5.1582e-04
Epoch 8639/100000
63/63 [=====] - 0s 4ms/step - loss: 7.8771e-04 -
val_loss: 0.0011
Epoch 8640/100000
63/63 [=====] - 0s 3ms/step - loss: 5.6315e-04 -
val_loss: 9.0578e-04
Epoch 8641/100000
63/63 [=====] - 0s 4ms/step - loss: 4.3034e-04 -
val_loss: 8.8385e-04
Epoch 8642/100000
57/63 [=====>...] - ETA: 0s - loss: 8.0464e-04Epoch 08641:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 7.8339e-04 -
val_loss: 4.0931e-04
Epoch 8643/100000
53/63 [=====>...] - ETA: 0s - loss: 4.8096e-04Epoch 08642:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.8055e-04 -
val_loss: 4.0310e-04
Epoch 8644/100000
58/63 [=====>...] - ETA: 0s - loss: 4.0158e-04Epoch 08643:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 3.8761e-04 -
val_loss: 4.6634e-04
Epoch 8645/100000
57/63 [=====>...] - ETA: 0s - loss: 3.7435e-04Epoch 08644:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 3.8503e-04 -
val_loss: 3.6922e-04
Epoch 8646/100000

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59/63 [=====>...] - ETA: 0s - loss: 4.1739e-04Epoch 08645:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.5854e-04 -
val_loss: 3.7906e-04
Epoch 8647/100000
63/63 [=====] - 0s 6ms/step - loss: 4.4734e-04 -
val_loss: 5.1255e-04
Epoch 8648/100000
55/63 [=====>...] - ETA: 0s - loss: 4.3631e-04Epoch 08647:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.2050e-04 -
val_loss: 4.7413e-04
Epoch 8649/100000
63/63 [=====] - 0s 3ms/step - loss: 4.4002e-04 -
val_loss: 6.2165e-04
Epoch 8650/100000
59/63 [=====>...] - ETA: 0s - loss: 4.7214e-04Epoch 08649:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 4.5920e-04 -
val_loss: 4.5043e-04
Epoch 8651/100000
63/63 [=====] - 0s 4ms/step - loss: 4.8341e-04 -
val_loss: 7.2836e-04
Epoch 8652/100000
54/63 [=====>...] - ETA: 0s - loss: 4.9359e-04Epoch 08651:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.8351e-04 -
val_loss: 3.6505e-04
Epoch 8653/100000
60/63 [=====>...] - ETA: 0s - loss: 4.4820e-04Epoch 08652:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 4.4184e-04 -
val_loss: 4.4212e-04
Epoch 8654/100000
62/63 [=====>...] - ETA: 0s - loss: 5.1715e-04Epoch 08653:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 5.1650e-04 -
val_loss: 4.1596e-04
Epoch 8655/100000
63/63 [=====] - 0s 4ms/step - loss: 5.5208e-04 -
val_loss: 7.1387e-04
Epoch 8656/100000
63/63 [=====] - 0s 4ms/step - loss: 4.2690e-04 -
val_loss: 5.7970e-04
Epoch 8657/100000
60/63 [=====>...] - ETA: 0s - loss: 5.1591e-04Epoch 08656:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 5.0986e-04 -

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val_loss: 4.9247e-04
Epoch 8658/100000
63/63 [=====] - ETA: 0s - loss: 4.7896e-04Epoch 08657:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 4.7896e-04 -
val_loss: 3.3423e-04
Epoch 8659/100000
63/63 [=====] - 0s 4ms/step - loss: 4.4306e-04 -
val_loss: 6.4332e-04
Epoch 8660/100000
63/63 [=====] - 0s 4ms/step - loss: 5.1083e-04 -
val_loss: 7.3860e-04
Epoch 8661/100000
63/63 [=====] - 0s 4ms/step - loss: 5.3207e-04 -
val_loss: 6.6086e-04
Epoch 8662/100000
63/63 [=====] - 0s 3ms/step - loss: 4.8748e-04 -
val_loss: 6.2903e-04
Epoch 8663/100000
63/63 [=====] - 0s 3ms/step - loss: 7.7012e-04 -
val_loss: 6.4948e-04
Epoch 8664/100000
60/63 [=====>..] - ETA: 0s - loss: 4.5148e-04Epoch 08663:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 4.4578e-04 -
val_loss: 3.5915e-04
Epoch 8665/100000
63/63 [=====] - 0s 4ms/step - loss: 5.5627e-04 -
val_loss: 5.0991e-04
Epoch 8666/100000
63/63 [=====] - 0s 4ms/step - loss: 6.0527e-04 -
val_loss: 6.0932e-04
Epoch 8667/100000
63/63 [=====] - 0s 3ms/step - loss: 5.6310e-04 -
val_loss: 7.7748e-04
Epoch 8668/100000
59/63 [=====>..] - ETA: 0s - loss: 4.5803e-04Epoch 08667:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.5862e-04 -
val_loss: 4.5268e-04
Epoch 8669/100000
63/63 [=====] - ETA: 0s - loss: 4.1506e-04Epoch 08668:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.1506e-04 -
val_loss: 4.3022e-04
Epoch 8670/100000
52/63 [=====>...] - ETA: 0s - loss: 4.3993e-04Epoch 08669:
early stopping THR

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63/63 [=====] - 0s 5ms/step - loss: 4.5501e-04 -
val_loss: 4.3793e-04
Epoch 8671/100000
63/63 [=====] - 0s 3ms/step - loss: 4.0147e-04 -
val_loss: 5.7318e-04
Epoch 8672/100000
53/63 [=====>...] - ETA: 0s - loss: 4.4844e-04Epoch 08671:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.5471e-04 -
val_loss: 4.3568e-04
Epoch 8673/100000
51/63 [=====>...] - ETA: 0s - loss: 3.2794e-04Epoch 08672:
early stopping THR
63/63 [=====] - 0s 5ms/step - loss: 3.4917e-04 -
val_loss: 4.5081e-04
Epoch 8674/100000
49/63 [=====>...] - ETA: 0s - loss: 4.9885e-04Epoch 08673:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.0736e-04 -
val_loss: 3.9499e-04
Epoch 8675/100000
63/63 [=====] - 0s 3ms/step - loss: 4.1229e-04 -
val_loss: 5.1548e-04
Epoch 8676/100000
43/63 [=====>...] - ETA: 0s - loss: 3.2158e-04Epoch 08675:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 4.2339e-04 -
val_loss: 4.8742e-04
Epoch 8677/100000
55/63 [=====>...] - ETA: 0s - loss: 5.0859e-04Epoch 08676:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.8105e-04 -
val_loss: 3.1587e-04
Epoch 8678/100000
58/63 [=====>...] - ETA: 0s - loss: 5.6578e-04Epoch 08677:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.6313e-04 -
val_loss: 4.1860e-04
Epoch 8679/100000
63/63 [=====] - 0s 3ms/step - loss: 4.7083e-04 -
val_loss: 5.3510e-04
Epoch 8680/100000
59/63 [=====>...] - ETA: 0s - loss: 4.2345e-04Epoch 08679:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.2336e-04 -
val_loss: 3.5955e-04
Epoch 8681/100000
63/63 [=====] - 0s 4ms/step - loss: 4.7918e-04 -

```

```

val_loss: 6.1637e-04
Epoch 8682/100000
63/63 [=====] - 0s 4ms/step - loss: 4.1410e-04 -
val_loss: 6.5861e-04
Epoch 8683/100000
58/63 [=====>...] - ETA: 0s - loss: 5.1200e-04Epoch 08682:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 4.9660e-04 -
val_loss: 4.9451e-04
Epoch 8684/100000
62/63 [=====>.] - ETA: 0s - loss: 4.1868e-04Epoch 08683:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 4.1899e-04 -
val_loss: 3.4814e-04
Epoch 8685/100000
57/63 [=====>...] - ETA: 0s - loss: 5.8911e-04Epoch 08684:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 6.0978e-04 -
val_loss: 3.8450e-04
Epoch 8686/100000
63/63 [=====] - 0s 4ms/step - loss: 5.3607e-04 -
val_loss: 5.9124e-04
Epoch 8687/100000
63/63 [=====] - 0s 4ms/step - loss: 4.9748e-04 -
val_loss: 5.1360e-04
Epoch 8688/100000
57/63 [=====>...] - ETA: 0s - loss: 4.8459e-04Epoch 08687:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 4.6567e-04 -
val_loss: 3.4112e-04
Epoch 8689/100000
57/63 [=====>...] - ETA: 0s - loss: 7.1521e-04Epoch 08688:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 7.0021e-04 -
val_loss: 3.5863e-04
Epoch 8690/100000
63/63 [=====] - ETA: 0s - loss: 5.5806e-04Epoch 08689:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 5.5806e-04 -
val_loss: 2.8531e-04
Epoch 8691/100000
58/63 [=====>...] - ETA: 0s - loss: 4.3753e-04Epoch 08690:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.2453e-04 -
val_loss: 3.6855e-04
Epoch 8692/100000
63/63 [=====] - 0s 3ms/step - loss: 6.6560e-04 -
val_loss: 5.0766e-04

```

Epoch 8693/100000  
63/63 [=====] - 0s 5ms/step - loss: 5.4639e-04 -  
val\_loss: 6.1130e-04  
Epoch 8694/100000  
54/63 [=====>...] - ETA: 0s - loss: 5.7919e-04Epoch 08693:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 5.4718e-04 -  
val\_loss: 2.2816e-04  
Epoch 8695/100000  
52/63 [=====>...] - ETA: 0s - loss: 4.7875e-04Epoch 08694:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 4.8260e-04 -  
val\_loss: 4.4290e-04  
Epoch 8696/100000  
59/63 [=====>..] - ETA: 0s - loss: 6.0077e-04Epoch 08695:  
early stopping THR  
63/63 [=====] - 0s 3ms/step - loss: 6.2361e-04 -  
val\_loss: 3.5151e-04  
Epoch 8697/100000  
58/63 [=====>...] - ETA: 0s - loss: 4.8536e-04Epoch 08696:  
early stopping THR  
63/63 [=====] - 0s 5ms/step - loss: 4.7241e-04 -  
val\_loss: 2.0652e-04  
Epoch 8698/100000  
47/63 [=====>...] - ETA: 0s - loss: 3.8262e-04Epoch 08697:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 4.3343e-04 -  
val\_loss: 2.6562e-04  
Epoch 8699/100000  
61/63 [=====>.] - ETA: 0s - loss: 4.6370e-04Epoch 08698:  
early stopping THR  
63/63 [=====] - 0s 3ms/step - loss: 4.5941e-04 -  
val\_loss: 4.3491e-04  
Epoch 8700/100000  
63/63 [=====] - 0s 4ms/step - loss: 4.6819e-04 -  
val\_loss: 5.6896e-04  
Epoch 8701/100000  
63/63 [=====] - ETA: 0s - loss: 5.4344e-04Epoch 08700:  
early stopping THR  
63/63 [=====] - 0s 3ms/step - loss: 5.4344e-04 -  
val\_loss: 4.3565e-04  
Epoch 8702/100000  
55/63 [=====>...] - ETA: 0s - loss: 4.5192e-04Epoch 08701:  
early stopping THR  
63/63 [=====] - 0s 4ms/step - loss: 4.5073e-04 -  
val\_loss: 4.3237e-04  
Epoch 8703/100000  
63/63 [=====] - 0s 3ms/step - loss: 4.5020e-04 -

```

val_loss: 5.7259e-04
Epoch 8704/100000
63/63 [=====] - 0s 4ms/step - loss: 3.7790e-04 -
val_loss: 5.0774e-04
Epoch 8705/100000
56/63 [=====>...] - ETA: 0s - loss: 4.0852e-04Epoch 08704:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 3.9944e-04 -
val_loss: 4.1641e-04
Epoch 8706/100000
53/63 [=====>...] - ETA: 0s - loss: 3.7490e-04Epoch 08705:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 3.5287e-04 -
val_loss: 4.9045e-04
Epoch 8707/100000
63/63 [=====] - 0s 4ms/step - loss: 3.7081e-04 -
val_loss: 5.5971e-04
Epoch 8708/100000
54/63 [=====>...] - ETA: 0s - loss: 3.7859e-04Epoch 08707:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 3.6177e-04 -
val_loss: 4.7475e-04
Epoch 8709/100000
58/63 [=====>...] - ETA: 0s - loss: 3.3184e-04Epoch 08708:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 3.2199e-04 -
val_loss: 3.5979e-04
Epoch 8710/100000
63/63 [=====] - 0s 5ms/step - loss: 3.7545e-04 -
val_loss: 7.2097e-04
Epoch 8711/100000
56/63 [=====>...] - ETA: 0s - loss: 4.9175e-04Epoch 08710:
early stopping THR
63/63 [=====] - 0s 5ms/step - loss: 4.7162e-04 -
val_loss: 2.9976e-04
Epoch 8712/100000
50/63 [=====>...] - ETA: 0s - loss: 5.3099e-04Epoch 08711:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.0271e-04 -
val_loss: 4.3124e-04
Epoch 8713/100000
63/63 [=====] - 0s 4ms/step - loss: 4.7461e-04 -
val_loss: 5.4176e-04
Epoch 8714/100000
63/63 [=====] - 0s 3ms/step - loss: 3.4428e-04 -
val_loss: 5.5001e-04
Epoch 8715/100000
63/63 [=====] - 0s 4ms/step - loss: 4.2291e-04 -

```

```

val_loss: 6.3631e-04
Epoch 8716/100000
63/63 [=====] - 0s 4ms/step - loss: 3.5781e-04 -
val_loss: 6.4377e-04
Epoch 8717/100000
43/63 [=====>...] - ETA: 0s - loss: 5.4988e-04Epoch 08716:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 5.0561e-04 -
val_loss: 3.2315e-04
Epoch 8718/100000
63/63 [=====] - ETA: 0s - loss: 4.4000e-04Epoch 08717:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 4.4000e-04 -
val_loss: 4.8280e-04
Epoch 8719/100000
63/63 [=====] - 0s 3ms/step - loss: 4.8355e-04 -
val_loss: 5.9901e-04
Epoch 8720/100000
63/63 [=====] - 0s 4ms/step - loss: 4.6890e-04 -
val_loss: 6.5303e-04
Epoch 8721/100000
59/63 [=====>..] - ETA: 0s - loss: 4.8293e-04Epoch 08720:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 4.9035e-04 -
val_loss: 4.4577e-04
Epoch 8722/100000
63/63 [=====] - 0s 3ms/step - loss: 5.3026e-04 -
val_loss: 5.3847e-04
Epoch 8723/100000
62/63 [=====>.] - ETA: 0s - loss: 3.7433e-04Epoch 08722:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 3.7374e-04 -
val_loss: 3.5841e-04
Epoch 8724/100000
58/63 [=====>...] - ETA: 0s - loss: 3.6849e-04Epoch 08723:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 3.6316e-04 -
val_loss: 3.7683e-04
Epoch 8725/100000
63/63 [=====] - 0s 3ms/step - loss: 3.4443e-04 -
val_loss: 5.7556e-04
Epoch 8726/100000
62/63 [=====>.] - ETA: 0s - loss: 3.8084e-04Epoch 08725:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 3.8052e-04 -
val_loss: 4.1536e-04
Epoch 8727/100000
63/63 [=====] - 0s 4ms/step - loss: 3.8441e-04 -

```

```

val_loss: 6.1330e-04
Epoch 8728/100000
62/63 [=====>.] - ETA: 0s - loss: 3.9147e-04Epoch 08727:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 3.9216e-04 -
val_loss: 2.5346e-04
Epoch 8729/100000
63/63 [=====] - 0s 4ms/step - loss: 3.4584e-04 -
val_loss: 6.4794e-04
Epoch 8730/100000
50/63 [=====>...] - ETA: 0s - loss: 4.5098e-04Epoch 08729:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.3082e-04 -
val_loss: 3.6860e-04
Epoch 8731/100000
63/63 [=====] - 0s 4ms/step - loss: 5.4761e-04 -
val_loss: 7.4356e-04
Epoch 8732/100000
56/63 [=====>...] - ETA: 0s - loss: 5.8478e-04Epoch 08731:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 5.5544e-04 -
val_loss: 4.0487e-04
Epoch 8733/100000
56/63 [=====>...] - ETA: 0s - loss: 4.9606e-04Epoch 08732:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.9697e-04 -
val_loss: 4.5178e-04
Epoch 8734/100000
57/63 [=====>...] - ETA: 0s - loss: 5.6082e-04Epoch 08733:
early stopping THR
63/63 [=====] - 0s 6ms/step - loss: 5.6278e-04 -
val_loss: 3.4527e-04
Epoch 8735/100000
54/63 [=====>...] - ETA: 0s - loss: 4.5008e-04Epoch 08734:
early stopping THR
63/63 [=====] - 0s 5ms/step - loss: 4.6706e-04 -
val_loss: 3.3724e-04
Epoch 8736/100000
56/63 [=====>...] - ETA: 0s - loss: 3.8683e-04Epoch 08735:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 3.8865e-04 -
val_loss: 3.9320e-04
Epoch 8737/100000
57/63 [=====>...] - ETA: 0s - loss: 4.1159e-04Epoch 08736:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.1398e-04 -
val_loss: 4.9198e-04
Epoch 8738/100000

```

```

54/63 [=====>...] - ETA: 0s - loss: 4.0108e-04Epoch 08737:
early stopping THR
63/63 [=====] - 0s 5ms/step - loss: 3.9910e-04 -
val_loss: 2.6469e-04
Epoch 8739/100000
59/63 [=====>..] - ETA: 0s - loss: 4.5272e-04Epoch 08738:
early stopping THR
63/63 [=====] - 0s 4ms/step - loss: 4.5601e-04 -
val_loss: 4.8821e-04
Epoch 8740/100000
48/63 [=====>...] - ETA: 0s - loss: 3.7772e-04Epoch 08739:
early stopping THR
63/63 [=====] - 0s 5ms/step - loss: 4.1512e-04 -
val_loss: 4.5379e-04
Epoch 8741/100000
61/63 [=====>.] - ETA: 0s - loss: 4.0589e-04Epoch 08740:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 4.0093e-04 -
val_loss: 2.1047e-04
Epoch 8742/100000
60/63 [=====>..] - ETA: 0s - loss: 3.9322e-04Epoch 08741:
early stopping THR
63/63 [=====] - 0s 3ms/step - loss: 4.1169e-04 -
val_loss: 4.2763e-04

```

```
[11]: encoder.summary(), decoder.summary()
```

```
Model: "sequential_1"
```

Layer (type)	Output Shape	Param #
dense_5 (Dense)	(None, 32)	128
dense_6 (Dense)	(None, 64)	2112
dense_7 (Dense)	(None, 16)	1040
dense_8 (Dense)	(None, 1)	17

```

=====
Total params: 3,297
Trainable params: 3,297
Non-trainable params: 0

```

```
Model: "sequential_2"
```

Layer (type)	Output Shape	Param #
--------------	--------------	---------

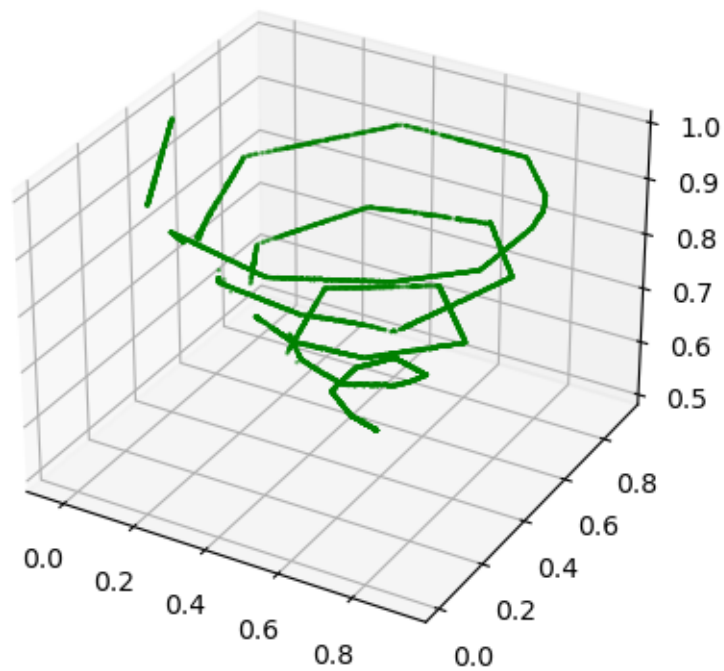
dense_9 (Dense)	(None, 16)	32
dense_10 (Dense)	(None, 64)	1088
dense_11 (Dense)	(None, 32)	2080
dense_12 (Dense)	(None, 3)	99

```
=====
Total params: 3,299
Trainable params: 3,299
Non-trainable params: 0
-----
```

```
[11]: (None, None)
```

```
[12]: reconstructed_point = autoencoder.predict(inputs)
ax = plt.axes(projection = '3d')
ax.scatter3D(reconstructed_point[:, 0], reconstructed_point[:, 1],
             ↪reconstructed_point[:, 2], color = "green", s=.5)
plt.show()
```

```
313/313 [=====] - 0s 1ms/step
```





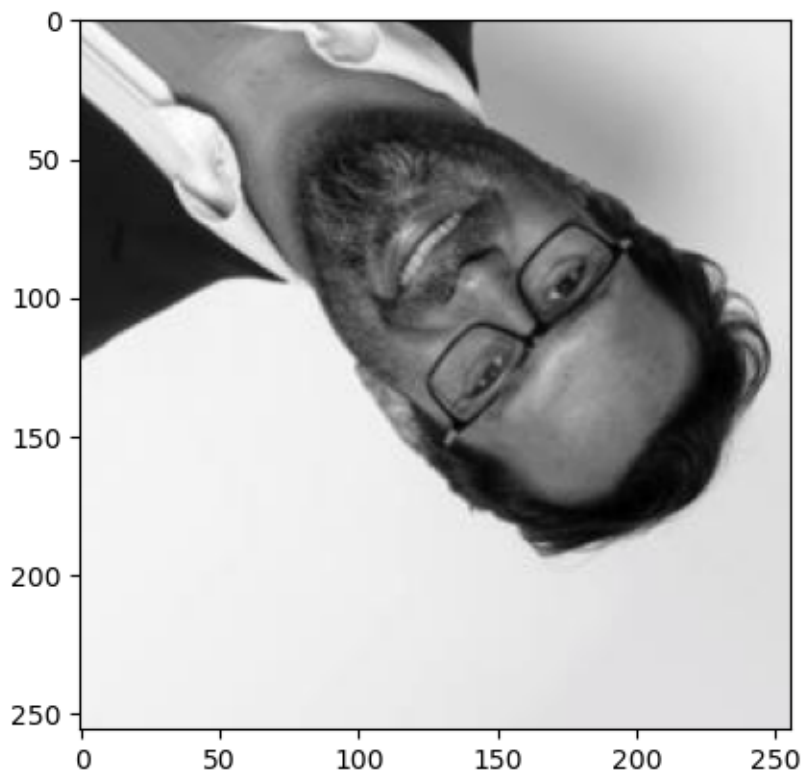
### 1.3 Autoencoder Gernot Heisenberg – Walter White

```
[13]: # Read the data
input_path = "data/heisenberg_heisenberg/gernot"
inputs = []
SIZE = 256

for img in next(os.walk(input_path))[2]:
    inputs.append(cv2.resize(cv2.imread(os.path.join(input_path, img), 1),
        ↪(SIZE, SIZE)))
```

```
[14]: inputs = np.stack(inputs)
plt.imshow(inputs[1], cmap="gray")
```

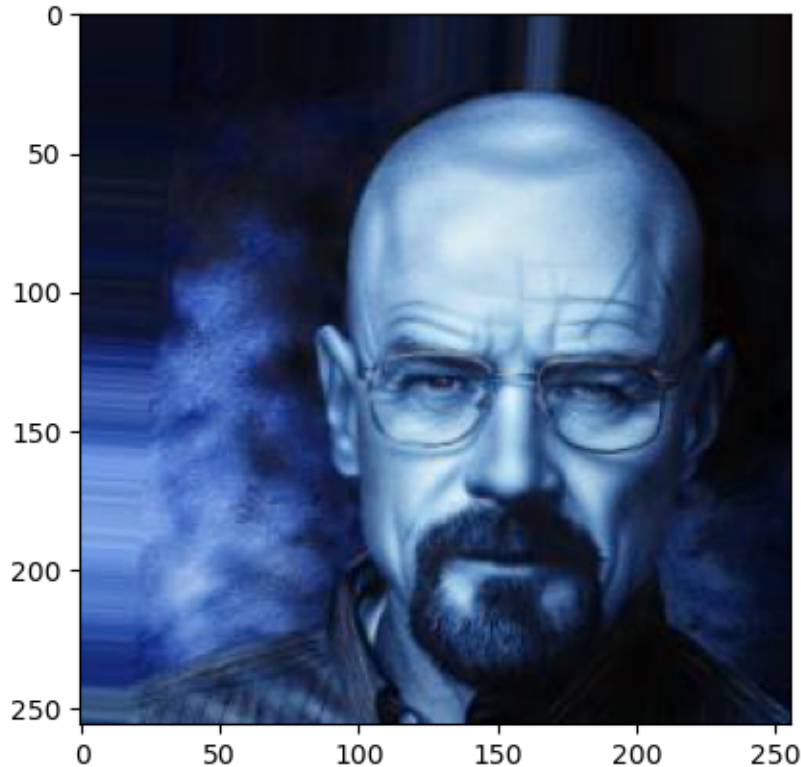
```
[14]: <matplotlib.image.AxesImage at 0x7fa13015f4c0>
```



```
[15]: output_path = "data/heisenberg_heisenberg/walter"
outputs = []
for img in next(os.walk(output_path))[2]:
    outputs.append(cv2.resize(cv2.imread(os.path.join(output_path, img), 1),
        ↪(SIZE, SIZE)))
```

```
[16]: outputs = np.stack(outputs)
plt.imshow(outputs[5], cmap="gray")
```

```
[16]: <matplotlib.image.AxesImage at 0x7fa13003d550>
```



```
[17]: inputs = inputs.astype(float) / 255.
outputs = outputs.astype(float) / 255.
```

```
[18]: inputs[0].shape, outputs[0].shape
```

```
[18]: ((256, 256, 3), (256, 256, 3))
```

```
[19]: from tensorflow.keras.layers import Conv2D, MaxPooling2D, UpSampling2D
from tensorflow.keras.models import Sequential

encoder = Sequential()

encoder.add(Conv2D(32, (3, 3), activation='relu', padding='same',
    ↪ input_shape=(SIZE, SIZE, 3)))
encoder.add(MaxPooling2D((2, 2), padding='same'))
encoder.add(Conv2D(8, (3, 3), activation='relu', padding='same'))
encoder.add(MaxPooling2D((2, 2), padding='same'))
```

```

encoder.add(Conv2D(8, (3, 3), activation='relu', padding='same'))
encoder.add(MaxPooling2D((2, 2), padding='same'))

decoder = Sequential()

decoder.add(Conv2D(8, (3, 3), activation='relu', padding='same'))
decoder.add(UpSampling2D((2, 2)))
decoder.add(Conv2D(8, (3, 3), activation='relu', padding='same'))
decoder.add(UpSampling2D((2, 2)))
decoder.add(Conv2D(32, (3, 3), activation='relu', padding='same'))
decoder.add(UpSampling2D((2, 2)))
decoder.add(Conv2D(3, (3, 3), activation='relu', padding='same'))

```

```

[20]: model = Sequential([encoder, decoder])

model.compile(optimizer='adam', loss='mean_squared_error', metrics=['accuracy'])
model.summary()

autoencoder = Sequential([encoder, decoder])

autoencoder.compile(loss="mse", optimizer="adam", metrics=["accuracy"])

```

Model: "sequential\_6"

Layer (type)	Output Shape	Param #
sequential_4 (Sequential)	(None, 32, 32, 8)	3792
sequential_5 (Sequential)	(None, 256, 256, 3)	4371
Total params: 8,163		
Trainable params: 8,163		
Non-trainable params: 0		

```

[21]: encoder.summary(), decoder.summary()

```

Model: "sequential\_4"

Layer (type)	Output Shape	Param #
conv2d (Conv2D)	(None, 256, 256, 32)	896
max_pooling2d (MaxPooling2D)	(None, 128, 128, 32)	0
conv2d_1 (Conv2D)	(None, 128, 128, 8)	2312

```

max_pooling2d_1 (MaxPooling2 (None, 64, 64, 8)          0
-----
conv2d_2 (Conv2D)                (None, 64, 64, 8)      584
-----
max_pooling2d_2 (MaxPooling2 (None, 32, 32, 8)          0
=====
Total params: 3,792
Trainable params: 3,792
Non-trainable params: 0
-----
Model: "sequential_5"
-----
Layer (type)                 Output Shape              Param #
=====
conv2d_3 (Conv2D)            (None, 32, 32, 8)         584
-----
up_sampling2d (UpSampling2D) (None, 64, 64, 8)         0
-----
conv2d_4 (Conv2D)            (None, 64, 64, 8)         584
-----
up_sampling2d_1 (UpSampling2 (None, 128, 128, 8)         0
-----
conv2d_5 (Conv2D)            (None, 128, 128, 32)      2336
-----
up_sampling2d_2 (UpSampling2 (None, 256, 256, 32)      0
-----
conv2d_6 (Conv2D)            (None, 256, 256, 3)       867
=====
Total params: 4,371
Trainable params: 4,371
Non-trainable params: 0
-----

```

[21]: (None, None)

[22]: `autoencoder.fit(inputs, outputs, epochs=100000, shuffle=True)`

```

Epoch 1/100000
2023-12-06 14:13:26.253683: I
tensorflow/stream_executor/platform/default/dso_loader.cc:49] Successfully
opened dynamic library libcudnn.so.7
2023-12-06 14:13:27.972757: W tensorflow/stream_executor/gpu/asm_compiler.cc:63]
Running ptxas --version returned 256
2023-12-06 14:13:28.044334: W
tensorflow/stream_executor/gpu/redzone_allocator.cc:314] Internal: ptxas exited
with non-zero error code 256, output:
Relying on driver to perform ptx compilation.

```

Modify \$PATH to customize ptxas location.

This message will be only logged once.

2/2 [=====] - 33s 15s/step - loss: 0.1503 - accuracy:  
0.0256

Epoch 2/100000

2/2 [=====] - 0s 113ms/step - loss: 0.1347 - accuracy:  
0.0105

Epoch 3/100000

2/2 [=====] - 0s 112ms/step - loss: 0.1132 - accuracy:  
0.0127

Epoch 4/100000

2/2 [=====] - 0s 113ms/step - loss: 0.0878 - accuracy:  
0.0353

Epoch 5/100000

2/2 [=====] - 0s 113ms/step - loss: 0.0742 - accuracy:  
0.8348

Epoch 6/100000

2/2 [=====] - 0s 112ms/step - loss: 0.0726 - accuracy:  
0.9591

Epoch 7/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0730 - accuracy:  
0.9600

Epoch 8/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0720 - accuracy:  
0.9589

Epoch 9/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0696 - accuracy:  
0.9597

Epoch 10/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0673 - accuracy:  
0.9599

Epoch 11/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0658 - accuracy:  
0.9589

Epoch 12/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0657 - accuracy:  
0.9589

Epoch 13/100000

2/2 [=====] - 0s 120ms/step - loss: 0.0651 - accuracy:  
0.9599

Epoch 14/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0650 - accuracy:  
0.9600

Epoch 15/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0650 - accuracy:  
0.9610

Epoch 16/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0649 - accuracy:  
0.9594  
Epoch 17/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0648 - accuracy:  
0.9597  
Epoch 18/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0644 - accuracy:  
0.9602  
Epoch 19/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0641 - accuracy:  
0.9594  
Epoch 20/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0642 - accuracy:  
0.9600  
Epoch 21/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0648 - accuracy:  
0.9590  
Epoch 22/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0642 - accuracy:  
0.9609  
Epoch 23/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0662 - accuracy:  
0.9589  
Epoch 24/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0646 - accuracy:  
0.9593  
Epoch 25/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0645 - accuracy:  
0.9589  
Epoch 26/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0650 - accuracy:  
0.9597  
Epoch 27/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0640 - accuracy:  
0.9598  
Epoch 28/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0643 - accuracy:  
0.9602  
Epoch 29/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0639 - accuracy:  
0.9602  
Epoch 30/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0642 - accuracy:  
0.9587  
Epoch 31/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0636 - accuracy:  
0.9603  
Epoch 32/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0641 - accuracy: 0.9586  
Epoch 33/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0635 - accuracy: 0.9605  
Epoch 34/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0635 - accuracy: 0.9588  
Epoch 35/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0634 - accuracy: 0.9596  
Epoch 36/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0633 - accuracy: 0.9598  
Epoch 37/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0631 - accuracy: 0.9604  
Epoch 38/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0632 - accuracy: 0.9598  
Epoch 39/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0629 - accuracy: 0.9605  
Epoch 40/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0629 - accuracy: 0.9589  
Epoch 41/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0631 - accuracy: 0.9589  
Epoch 42/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0629 - accuracy: 0.9596  
Epoch 43/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0628 - accuracy: 0.9602  
Epoch 44/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0626 - accuracy: 0.9595  
Epoch 45/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0626 - accuracy: 0.9606  
Epoch 46/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0631 - accuracy: 0.9595  
Epoch 47/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0624 - accuracy: 0.9596  
Epoch 48/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0628 - accuracy:  
0.9599  
Epoch 49/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0631 - accuracy:  
0.9594  
Epoch 50/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0628 - accuracy:  
0.9604  
Epoch 51/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0622 - accuracy:  
0.9603  
Epoch 52/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0622 - accuracy:  
0.9594  
Epoch 53/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0625 - accuracy:  
0.9603  
Epoch 54/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0622 - accuracy:  
0.9603  
Epoch 55/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0627 - accuracy:  
0.9600  
Epoch 56/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0623 - accuracy:  
0.9589  
Epoch 57/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0623 - accuracy:  
0.9602  
Epoch 58/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0622 - accuracy:  
0.9600  
Epoch 59/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0619 - accuracy:  
0.9600  
Epoch 60/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0621 - accuracy:  
0.9598  
Epoch 61/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0622 - accuracy:  
0.9598  
Epoch 62/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0620 - accuracy:  
0.9591  
Epoch 63/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0621 - accuracy:  
0.9589  
Epoch 64/100000



2/2 [=====] - 0s 114ms/step - loss: 0.0624 - accuracy:  
0.9597  
Epoch 65/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0620 - accuracy:  
0.9598  
Epoch 66/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0623 - accuracy:  
0.9601  
Epoch 67/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0622 - accuracy:  
0.9599  
Epoch 68/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0618 - accuracy:  
0.9603  
Epoch 69/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0623 - accuracy:  
0.9592  
Epoch 70/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0619 - accuracy:  
0.9595  
Epoch 71/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0619 - accuracy:  
0.9597  
Epoch 72/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0624 - accuracy:  
0.9597  
Epoch 73/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0621 - accuracy:  
0.9587  
Epoch 74/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0617 - accuracy:  
0.9595  
Epoch 75/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0623 - accuracy:  
0.9588  
Epoch 76/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0621 - accuracy:  
0.9594  
Epoch 77/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0618 - accuracy:  
0.9607  
Epoch 78/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0620 - accuracy:  
0.9594  
Epoch 79/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0616 - accuracy:  
0.9599  
Epoch 80/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0620 - accuracy:  
0.9596  
Epoch 81/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0615 - accuracy:  
0.9603  
Epoch 82/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0618 - accuracy:  
0.9597  
Epoch 83/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0620 - accuracy:  
0.9597  
Epoch 84/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0612 - accuracy:  
0.9592  
Epoch 85/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0619 - accuracy:  
0.9606  
Epoch 86/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0617 - accuracy:  
0.9598  
Epoch 87/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0616 - accuracy:  
0.9594  
Epoch 88/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0618 - accuracy:  
0.9602  
Epoch 89/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0618 - accuracy:  
0.9597  
Epoch 90/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0618 - accuracy:  
0.9590  
Epoch 91/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0620 - accuracy:  
0.9593  
Epoch 92/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0619 - accuracy:  
0.9602  
Epoch 93/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0613 - accuracy:  
0.9605  
Epoch 94/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0612 - accuracy:  
0.9602  
Epoch 95/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0612 - accuracy:  
0.9586  
Epoch 96/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0619 - accuracy:  
0.9593  
Epoch 97/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0618 - accuracy:  
0.9605  
Epoch 98/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0618 - accuracy:  
0.9599  
Epoch 99/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0613 - accuracy:  
0.9593  
Epoch 100/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0614 - accuracy:  
0.9591  
Epoch 101/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0616 - accuracy:  
0.9599  
Epoch 102/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0615 - accuracy:  
0.9592  
Epoch 103/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0619 - accuracy:  
0.9594  
Epoch 104/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0617 - accuracy:  
0.9599  
Epoch 105/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0616 - accuracy:  
0.9600  
Epoch 106/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0615 - accuracy:  
0.9596  
Epoch 107/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0617 - accuracy:  
0.9596  
Epoch 108/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0614 - accuracy:  
0.9602  
Epoch 109/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0611 - accuracy:  
0.9597  
Epoch 110/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0619 - accuracy:  
0.9601  
Epoch 111/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0612 - accuracy:  
0.9593  
Epoch 112/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0615 - accuracy:  
0.9599  
Epoch 113/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0613 - accuracy:  
0.9601  
Epoch 114/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0615 - accuracy:  
0.9595  
Epoch 115/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0612 - accuracy:  
0.9601  
Epoch 116/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0612 - accuracy:  
0.9595  
Epoch 117/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0616 - accuracy:  
0.9596  
Epoch 118/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0612 - accuracy:  
0.9598  
Epoch 119/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0617 - accuracy:  
0.9594  
Epoch 120/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0609 - accuracy:  
0.9594  
Epoch 121/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0615 - accuracy:  
0.9598  
Epoch 122/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0615 - accuracy:  
0.9598  
Epoch 123/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0617 - accuracy:  
0.9594  
Epoch 124/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0608 - accuracy:  
0.9596  
Epoch 125/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0613 - accuracy:  
0.9602  
Epoch 126/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0607 - accuracy:  
0.9606  
Epoch 127/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0617 - accuracy:  
0.9596  
Epoch 128/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0617 - accuracy:  
0.9601  
Epoch 129/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0613 - accuracy:  
0.9595  
Epoch 130/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0615 - accuracy:  
0.9602  
Epoch 131/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0608 - accuracy:  
0.9598  
Epoch 132/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0616 - accuracy:  
0.9602  
Epoch 133/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0615 - accuracy:  
0.9605  
Epoch 134/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0610 - accuracy:  
0.9597  
Epoch 135/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0613 - accuracy:  
0.9594  
Epoch 136/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0609 - accuracy:  
0.9594  
Epoch 137/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0614 - accuracy:  
0.9601  
Epoch 138/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0610 - accuracy:  
0.9599  
Epoch 139/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0609 - accuracy:  
0.9590  
Epoch 140/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0610 - accuracy:  
0.9597  
Epoch 141/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0612 - accuracy:  
0.9594  
Epoch 142/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0610 - accuracy:  
0.9598  
Epoch 143/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0614 - accuracy:  
0.9592  
Epoch 144/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0613 - accuracy: 0.9616  
 Epoch 145/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0614 - accuracy: 0.9594  
 Epoch 146/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0613 - accuracy: 0.9592  
 Epoch 147/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0615 - accuracy: 0.9593  
 Epoch 148/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0609 - accuracy: 0.9600  
 Epoch 149/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0610 - accuracy: 0.9589  
 Epoch 150/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0611 - accuracy: 0.9599  
 Epoch 151/100000  
 2/2 [=====] - 0s 113ms/step - loss: 0.0610 - accuracy: 0.9600  
 Epoch 152/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0614 - accuracy: 0.9597  
 Epoch 153/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0609 - accuracy: 0.9604  
 Epoch 154/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0612 - accuracy: 0.9596  
 Epoch 155/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0611 - accuracy: 0.9604  
 Epoch 156/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0615 - accuracy: 0.9591  
 Epoch 157/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0612 - accuracy: 0.9587  
 Epoch 158/100000  
 2/2 [=====] - 0s 113ms/step - loss: 0.0609 - accuracy: 0.9603  
 Epoch 159/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0613 - accuracy: 0.9601  
 Epoch 160/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0607 - accuracy:  
0.9584  
Epoch 161/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0612 - accuracy:  
0.9599  
Epoch 162/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0607 - accuracy:  
0.9597  
Epoch 163/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0610 - accuracy:  
0.9595  
Epoch 164/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0611 - accuracy:  
0.9592  
Epoch 165/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0609 - accuracy:  
0.9597  
Epoch 166/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0609 - accuracy:  
0.9603  
Epoch 167/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0608 - accuracy:  
0.9585  
Epoch 168/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0606 - accuracy:  
0.9593  
Epoch 169/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0608 - accuracy:  
0.9605  
Epoch 170/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0609 - accuracy:  
0.9604  
Epoch 171/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0609 - accuracy:  
0.9597  
Epoch 172/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0610 - accuracy:  
0.9590  
Epoch 173/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0609 - accuracy:  
0.9597  
Epoch 174/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0609 - accuracy:  
0.9594  
Epoch 175/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0608 - accuracy:  
0.9610  
Epoch 176/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0607 - accuracy:  
0.9602  
Epoch 177/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0607 - accuracy:  
0.9587  
Epoch 178/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0613 - accuracy:  
0.9590  
Epoch 179/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0607 - accuracy:  
0.9602  
Epoch 180/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0605 - accuracy:  
0.9599  
Epoch 181/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0608 - accuracy:  
0.9608  
Epoch 182/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0606 - accuracy:  
0.9600  
Epoch 183/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0605 - accuracy:  
0.9599  
Epoch 184/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0603 - accuracy:  
0.9593  
Epoch 185/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0609 - accuracy:  
0.9596  
Epoch 186/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0604 - accuracy:  
0.9597  
Epoch 187/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0608 - accuracy:  
0.9591  
Epoch 188/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0607 - accuracy:  
0.9603  
Epoch 189/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0610 - accuracy:  
0.9595  
Epoch 190/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0610 - accuracy:  
0.9606  
Epoch 191/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0612 - accuracy:  
0.9599  
Epoch 192/100000



2/2 [=====] - 0s 113ms/step - loss: 0.0610 - accuracy:  
 0.9597  
 Epoch 193/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0607 - accuracy:  
 0.9595  
 Epoch 194/100000  
 2/2 [=====] - 0s 121ms/step - loss: 0.0601 - accuracy:  
 0.9595  
 Epoch 195/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0612 - accuracy:  
 0.9602  
 Epoch 196/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0613 - accuracy:  
 0.9598  
 Epoch 197/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0605 - accuracy:  
 0.9598  
 Epoch 198/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0608 - accuracy:  
 0.9602  
 Epoch 199/100000  
 2/2 [=====] - 0s 113ms/step - loss: 0.0610 - accuracy:  
 0.9589  
 Epoch 200/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0611 - accuracy:  
 0.9606  
 Epoch 201/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0606 - accuracy:  
 0.9592  
 Epoch 202/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0606 - accuracy:  
 0.9596  
 Epoch 203/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0606 - accuracy:  
 0.9592  
 Epoch 204/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0604 - accuracy:  
 0.9596  
 Epoch 205/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0608 - accuracy:  
 0.9600  
 Epoch 206/100000  
 2/2 [=====] - 0s 113ms/step - loss: 0.0608 - accuracy:  
 0.9607  
 Epoch 207/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0608 - accuracy:  
 0.9602  
 Epoch 208/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0605 - accuracy:  
0.9610  
Epoch 209/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0606 - accuracy:  
0.9594  
Epoch 210/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0610 - accuracy:  
0.9596  
Epoch 211/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0606 - accuracy:  
0.9601  
Epoch 212/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0608 - accuracy:  
0.9591  
Epoch 213/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0610 - accuracy:  
0.9599  
Epoch 214/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0607 - accuracy:  
0.9595  
Epoch 215/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0603 - accuracy:  
0.9601  
Epoch 216/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0607 - accuracy:  
0.9598  
Epoch 217/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0606 - accuracy:  
0.9591  
Epoch 218/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0608 - accuracy:  
0.9603  
Epoch 219/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0603 - accuracy:  
0.9595  
Epoch 220/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0609 - accuracy:  
0.9591  
Epoch 221/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0602 - accuracy:  
0.9598  
Epoch 222/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0607 - accuracy:  
0.9588  
Epoch 223/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0602 - accuracy:  
0.9600  
Epoch 224/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0604 - accuracy:  
0.9602  
Epoch 225/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0605 - accuracy:  
0.9607  
Epoch 226/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0605 - accuracy:  
0.9600  
Epoch 227/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0598 - accuracy:  
0.9600  
Epoch 228/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0601 - accuracy:  
0.9604  
Epoch 229/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0604 - accuracy:  
0.9591  
Epoch 230/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0606 - accuracy:  
0.9592  
Epoch 231/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0598 - accuracy:  
0.9602  
Epoch 232/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0604 - accuracy:  
0.9593  
Epoch 233/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0599 - accuracy:  
0.9591  
Epoch 234/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0605 - accuracy:  
0.9598  
Epoch 235/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0605 - accuracy:  
0.9591  
Epoch 236/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0599 - accuracy:  
0.9594  
Epoch 237/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0598 - accuracy:  
0.9597  
Epoch 238/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0599 - accuracy:  
0.9590  
Epoch 239/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0602 - accuracy:  
0.9601  
Epoch 240/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0600 - accuracy:  
0.9597  
Epoch 241/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0602 - accuracy:  
0.9601  
Epoch 242/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0604 - accuracy:  
0.9595  
Epoch 243/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0597 - accuracy:  
0.9607  
Epoch 244/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0596 - accuracy:  
0.9603  
Epoch 245/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0601 - accuracy:  
0.9597  
Epoch 246/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0600 - accuracy:  
0.9597  
Epoch 247/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0601 - accuracy:  
0.9589  
Epoch 248/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0597 - accuracy:  
0.9594  
Epoch 249/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0603 - accuracy:  
0.9591  
Epoch 250/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0598 - accuracy:  
0.9600  
Epoch 251/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0597 - accuracy:  
0.9592  
Epoch 252/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0598 - accuracy:  
0.9593  
Epoch 253/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0606 - accuracy:  
0.9598  
Epoch 254/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0595 - accuracy:  
0.9591  
Epoch 255/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0594 - accuracy:  
0.9598  
Epoch 256/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0595 - accuracy:  
 0.9599  
 Epoch 257/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0603 - accuracy:  
 0.9591  
 Epoch 258/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0596 - accuracy:  
 0.9594  
 Epoch 259/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0599 - accuracy:  
 0.9590  
 Epoch 260/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0595 - accuracy:  
 0.9600  
 Epoch 261/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0597 - accuracy:  
 0.9591  
 Epoch 262/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0597 - accuracy:  
 0.9591  
 Epoch 263/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0594 - accuracy:  
 0.9602  
 Epoch 264/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0595 - accuracy:  
 0.9590  
 Epoch 265/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0597 - accuracy:  
 0.9591  
 Epoch 266/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0593 - accuracy:  
 0.9596  
 Epoch 267/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0602 - accuracy:  
 0.9592  
 Epoch 268/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0598 - accuracy:  
 0.9596  
 Epoch 269/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0600 - accuracy:  
 0.9596  
 Epoch 270/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0600 - accuracy:  
 0.9596  
 Epoch 271/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0604 - accuracy:  
 0.9595  
 Epoch 272/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0597 - accuracy:  
0.9596  
Epoch 273/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0595 - accuracy:  
0.9596  
Epoch 274/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0596 - accuracy:  
0.9593  
Epoch 275/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0592 - accuracy:  
0.9598  
Epoch 276/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0591 - accuracy:  
0.9592  
Epoch 277/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0595 - accuracy:  
0.9593  
Epoch 278/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0598 - accuracy:  
0.9609  
Epoch 279/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0597 - accuracy:  
0.9592  
Epoch 280/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0592 - accuracy:  
0.9589  
Epoch 281/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0594 - accuracy:  
0.9588  
Epoch 282/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0594 - accuracy:  
0.9609  
Epoch 283/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0593 - accuracy:  
0.9604  
Epoch 284/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0598 - accuracy:  
0.9603  
Epoch 285/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0594 - accuracy:  
0.9597  
Epoch 286/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0595 - accuracy:  
0.9595  
Epoch 287/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0591 - accuracy:  
0.9605  
Epoch 288/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0596 - accuracy:  
0.9593  
Epoch 289/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0590 - accuracy:  
0.9590  
Epoch 290/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0592 - accuracy:  
0.9596  
Epoch 291/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0599 - accuracy:  
0.9593  
Epoch 292/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0592 - accuracy:  
0.9599  
Epoch 293/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0591 - accuracy:  
0.9603  
Epoch 294/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0596 - accuracy:  
0.9590  
Epoch 295/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0596 - accuracy:  
0.9592  
Epoch 296/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0598 - accuracy:  
0.9591  
Epoch 297/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0596 - accuracy:  
0.9602  
Epoch 298/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0588 - accuracy:  
0.9589  
Epoch 299/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0594 - accuracy:  
0.9597  
Epoch 300/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0593 - accuracy:  
0.9595  
Epoch 301/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0594 - accuracy:  
0.9594  
Epoch 302/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0589 - accuracy:  
0.9601  
Epoch 303/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0592 - accuracy:  
0.9597  
Epoch 304/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0587 - accuracy:  
0.9597  
Epoch 305/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0592 - accuracy:  
0.9594  
Epoch 306/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0589 - accuracy:  
0.9598  
Epoch 307/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0588 - accuracy:  
0.9595  
Epoch 308/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0583 - accuracy:  
0.9600  
Epoch 309/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0590 - accuracy:  
0.9595  
Epoch 310/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0591 - accuracy:  
0.9596  
Epoch 311/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0589 - accuracy:  
0.9602  
Epoch 312/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0584 - accuracy:  
0.9596  
Epoch 313/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0587 - accuracy:  
0.9597  
Epoch 314/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0588 - accuracy:  
0.9603  
Epoch 315/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0589 - accuracy:  
0.9597  
Epoch 316/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0587 - accuracy:  
0.9588  
Epoch 317/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0594 - accuracy:  
0.9606  
Epoch 318/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0594 - accuracy:  
0.9601  
Epoch 319/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0589 - accuracy:  
0.9597  
Epoch 320/100000



2/2 [=====] - 0s 118ms/step - loss: 0.0594 - accuracy: 0.9597  
 Epoch 321/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0592 - accuracy: 0.9590  
 Epoch 322/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0601 - accuracy: 0.9594  
 Epoch 323/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0592 - accuracy: 0.9598  
 Epoch 324/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0588 - accuracy: 0.9597  
 Epoch 325/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0592 - accuracy: 0.9601  
 Epoch 326/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0584 - accuracy: 0.9604  
 Epoch 327/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0587 - accuracy: 0.9594  
 Epoch 328/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0589 - accuracy: 0.9596  
 Epoch 329/100000  
 2/2 [=====] - 0s 120ms/step - loss: 0.0584 - accuracy: 0.9599  
 Epoch 330/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0588 - accuracy: 0.9602  
 Epoch 331/100000  
 2/2 [=====] - 0s 120ms/step - loss: 0.0586 - accuracy: 0.9602  
 Epoch 332/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0590 - accuracy: 0.9583  
 Epoch 333/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0591 - accuracy: 0.9600  
 Epoch 334/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0590 - accuracy: 0.9590  
 Epoch 335/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0589 - accuracy: 0.9597  
 Epoch 336/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0588 - accuracy:  
0.9586  
Epoch 337/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0586 - accuracy:  
0.9598  
Epoch 338/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0587 - accuracy:  
0.9597  
Epoch 339/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0584 - accuracy:  
0.9601  
Epoch 340/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0591 - accuracy:  
0.9601  
Epoch 341/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0588 - accuracy:  
0.9596  
Epoch 342/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0583 - accuracy:  
0.9598  
Epoch 343/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0585 - accuracy:  
0.9605  
Epoch 344/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0584 - accuracy:  
0.9598  
Epoch 345/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0580 - accuracy:  
0.9599  
Epoch 346/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0580 - accuracy:  
0.9590  
Epoch 347/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0580 - accuracy:  
0.9606  
Epoch 348/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0584 - accuracy:  
0.9591  
Epoch 349/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0584 - accuracy:  
0.9600  
Epoch 350/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0583 - accuracy:  
0.9600  
Epoch 351/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0577 - accuracy:  
0.9596  
Epoch 352/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0582 - accuracy:  
0.9593  
Epoch 353/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0581 - accuracy:  
0.9594  
Epoch 354/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0582 - accuracy:  
0.9589  
Epoch 355/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0577 - accuracy:  
0.9602  
Epoch 356/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0580 - accuracy:  
0.9603  
Epoch 357/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0577 - accuracy:  
0.9584  
Epoch 358/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0582 - accuracy:  
0.9587  
Epoch 359/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0579 - accuracy:  
0.9590  
Epoch 360/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0578 - accuracy:  
0.9597  
Epoch 361/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0578 - accuracy:  
0.9599  
Epoch 362/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0578 - accuracy:  
0.9595  
Epoch 363/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0581 - accuracy:  
0.9605  
Epoch 364/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0584 - accuracy:  
0.9590  
Epoch 365/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0578 - accuracy:  
0.9596  
Epoch 366/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0582 - accuracy:  
0.9595  
Epoch 367/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0584 - accuracy:  
0.9601  
Epoch 368/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0576 - accuracy:  
 0.9595  
 Epoch 369/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0579 - accuracy:  
 0.9596  
 Epoch 370/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0583 - accuracy:  
 0.9599  
 Epoch 371/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0583 - accuracy:  
 0.9593  
 Epoch 372/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0581 - accuracy:  
 0.9603  
 Epoch 373/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0581 - accuracy:  
 0.9600  
 Epoch 374/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0582 - accuracy:  
 0.9588  
 Epoch 375/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0580 - accuracy:  
 0.9591  
 Epoch 376/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0581 - accuracy:  
 0.9597  
 Epoch 377/100000  
 2/2 [=====] - 0s 113ms/step - loss: 0.0576 - accuracy:  
 0.9611  
 Epoch 378/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0578 - accuracy:  
 0.9594  
 Epoch 379/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0577 - accuracy:  
 0.9591  
 Epoch 380/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0577 - accuracy:  
 0.9593  
 Epoch 381/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0573 - accuracy:  
 0.9595  
 Epoch 382/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0581 - accuracy:  
 0.9595  
 Epoch 383/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0584 - accuracy:  
 0.9589  
 Epoch 384/100000

2/2 [=====] - 0s 113ms/step - loss: 0.0573 - accuracy:  
0.9599  
Epoch 385/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0575 - accuracy:  
0.9598  
Epoch 386/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0577 - accuracy:  
0.9597  
Epoch 387/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0575 - accuracy:  
0.9596  
Epoch 388/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0575 - accuracy:  
0.9597  
Epoch 389/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0574 - accuracy:  
0.9589  
Epoch 390/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0575 - accuracy:  
0.9597  
Epoch 391/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0571 - accuracy:  
0.9602  
Epoch 392/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0574 - accuracy:  
0.9597  
Epoch 393/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0576 - accuracy:  
0.9601  
Epoch 394/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0578 - accuracy:  
0.9602  
Epoch 395/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0581 - accuracy:  
0.9606  
Epoch 396/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0575 - accuracy:  
0.9614  
Epoch 397/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0574 - accuracy:  
0.9593  
Epoch 398/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0575 - accuracy:  
0.9593  
Epoch 399/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0577 - accuracy:  
0.9598  
Epoch 400/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0580 - accuracy:  
 0.9600  
 Epoch 401/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0575 - accuracy:  
 0.9609  
 Epoch 402/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0569 - accuracy:  
 0.9598  
 Epoch 403/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0570 - accuracy:  
 0.9590  
 Epoch 404/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0571 - accuracy:  
 0.9595  
 Epoch 405/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0571 - accuracy:  
 0.9592  
 Epoch 406/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0568 - accuracy:  
 0.9599  
 Epoch 407/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0569 - accuracy:  
 0.9599  
 Epoch 408/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0569 - accuracy:  
 0.9592  
 Epoch 409/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0569 - accuracy:  
 0.9590  
 Epoch 410/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0568 - accuracy:  
 0.9594  
 Epoch 411/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0569 - accuracy:  
 0.9608  
 Epoch 412/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0571 - accuracy:  
 0.9602  
 Epoch 413/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0573 - accuracy:  
 0.9599  
 Epoch 414/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0574 - accuracy:  
 0.9603  
 Epoch 415/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0574 - accuracy:  
 0.9605  
 Epoch 416/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0577 - accuracy:  
0.9593  
Epoch 417/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0573 - accuracy:  
0.9596  
Epoch 418/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0590 - accuracy:  
0.9594  
Epoch 419/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0593 - accuracy:  
0.9601  
Epoch 420/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0576 - accuracy:  
0.9582  
Epoch 421/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0575 - accuracy:  
0.9600  
Epoch 422/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0576 - accuracy:  
0.9598  
Epoch 423/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0578 - accuracy:  
0.9591  
Epoch 424/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0567 - accuracy:  
0.9599  
Epoch 425/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0565 - accuracy:  
0.9589  
Epoch 426/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0569 - accuracy:  
0.9604  
Epoch 427/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0566 - accuracy:  
0.9603  
Epoch 428/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0568 - accuracy:  
0.9606  
Epoch 429/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0560 - accuracy:  
0.9593  
Epoch 430/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0561 - accuracy:  
0.9590  
Epoch 431/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0565 - accuracy:  
0.9592  
Epoch 432/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0562 - accuracy: 0.9587  
Epoch 433/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0564 - accuracy: 0.9600  
Epoch 434/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0562 - accuracy: 0.9603  
Epoch 435/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0565 - accuracy: 0.9596  
Epoch 436/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0563 - accuracy: 0.9605  
Epoch 437/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0566 - accuracy: 0.9587  
Epoch 438/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0555 - accuracy: 0.9598  
Epoch 439/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0565 - accuracy: 0.9598  
Epoch 440/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0574 - accuracy: 0.9590  
Epoch 441/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0566 - accuracy: 0.9596  
Epoch 442/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0596 - accuracy: 0.9600  
Epoch 443/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0576 - accuracy: 0.9603  
Epoch 444/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0574 - accuracy: 0.9592  
Epoch 445/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0569 - accuracy: 0.9599  
Epoch 446/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0568 - accuracy: 0.9593  
Epoch 447/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0570 - accuracy: 0.9603  
Epoch 448/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0565 - accuracy:  
0.9600  
Epoch 449/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0566 - accuracy:  
0.9597  
Epoch 450/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0563 - accuracy:  
0.9598  
Epoch 451/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0567 - accuracy:  
0.9593  
Epoch 452/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0560 - accuracy:  
0.9586  
Epoch 453/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0561 - accuracy:  
0.9601  
Epoch 454/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0572 - accuracy:  
0.9598  
Epoch 455/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0566 - accuracy:  
0.9588  
Epoch 456/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0568 - accuracy:  
0.9608  
Epoch 457/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0559 - accuracy:  
0.9588  
Epoch 458/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0567 - accuracy:  
0.9596  
Epoch 459/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0564 - accuracy:  
0.9594  
Epoch 460/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0553 - accuracy:  
0.9597  
Epoch 461/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0562 - accuracy:  
0.9600  
Epoch 462/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0552 - accuracy:  
0.9596  
Epoch 463/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0559 - accuracy:  
0.9594  
Epoch 464/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0557 - accuracy:  
0.9604  
Epoch 465/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0553 - accuracy:  
0.9592  
Epoch 466/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0558 - accuracy:  
0.9595  
Epoch 467/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0554 - accuracy:  
0.9607  
Epoch 468/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0548 - accuracy:  
0.9596  
Epoch 469/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0551 - accuracy:  
0.9599  
Epoch 470/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0552 - accuracy:  
0.9600  
Epoch 471/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0549 - accuracy:  
0.9604  
Epoch 472/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0551 - accuracy:  
0.9591  
Epoch 473/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0556 - accuracy:  
0.9600  
Epoch 474/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0556 - accuracy:  
0.9605  
Epoch 475/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0565 - accuracy:  
0.9594  
Epoch 476/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0556 - accuracy:  
0.9600  
Epoch 477/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0555 - accuracy:  
0.9609  
Epoch 478/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0560 - accuracy:  
0.9600  
Epoch 479/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0552 - accuracy:  
0.9595  
Epoch 480/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0558 - accuracy:  
0.9594  
Epoch 481/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0561 - accuracy:  
0.9587  
Epoch 482/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0557 - accuracy:  
0.9599  
Epoch 483/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0554 - accuracy:  
0.9604  
Epoch 484/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0557 - accuracy:  
0.9594  
Epoch 485/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0561 - accuracy:  
0.9599  
Epoch 486/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0559 - accuracy:  
0.9600  
Epoch 487/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0557 - accuracy:  
0.9590  
Epoch 488/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0556 - accuracy:  
0.9594  
Epoch 489/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0557 - accuracy:  
0.9591  
Epoch 490/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0552 - accuracy:  
0.9596  
Epoch 491/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0557 - accuracy:  
0.9598  
Epoch 492/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0550 - accuracy:  
0.9582  
Epoch 493/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0553 - accuracy:  
0.9600  
Epoch 494/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0557 - accuracy:  
0.9607  
Epoch 495/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0551 - accuracy:  
0.9594  
Epoch 496/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0548 - accuracy:  
0.9597  
Epoch 497/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0550 - accuracy:  
0.9597  
Epoch 498/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0546 - accuracy:  
0.9599  
Epoch 499/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0548 - accuracy:  
0.9605  
Epoch 500/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0542 - accuracy:  
0.9587  
Epoch 501/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0546 - accuracy:  
0.9605  
Epoch 502/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0543 - accuracy:  
0.9604  
Epoch 503/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0543 - accuracy:  
0.9597  
Epoch 504/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0539 - accuracy:  
0.9604  
Epoch 505/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0553 - accuracy:  
0.9597  
Epoch 506/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0541 - accuracy:  
0.9599  
Epoch 507/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0547 - accuracy:  
0.9599  
Epoch 508/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0540 - accuracy:  
0.9599  
Epoch 509/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0539 - accuracy:  
0.9591  
Epoch 510/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0541 - accuracy:  
0.9597  
Epoch 511/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0545 - accuracy:  
0.9592  
Epoch 512/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0542 - accuracy:  
0.9602  
Epoch 513/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0542 - accuracy:  
0.9604  
Epoch 514/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0548 - accuracy:  
0.9603  
Epoch 515/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0553 - accuracy:  
0.9599  
Epoch 516/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0550 - accuracy:  
0.9602  
Epoch 517/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0554 - accuracy:  
0.9586  
Epoch 518/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0549 - accuracy:  
0.9598  
Epoch 519/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0544 - accuracy:  
0.9594  
Epoch 520/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0548 - accuracy:  
0.9606  
Epoch 521/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0540 - accuracy:  
0.9596  
Epoch 522/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0541 - accuracy:  
0.9589  
Epoch 523/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0537 - accuracy:  
0.9599  
Epoch 524/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0537 - accuracy:  
0.9600  
Epoch 525/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0534 - accuracy:  
0.9588  
Epoch 526/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0538 - accuracy:  
0.9605  
Epoch 527/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0535 - accuracy:  
0.9595  
Epoch 528/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0541 - accuracy:  
0.9597  
Epoch 529/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0551 - accuracy:  
0.9596  
Epoch 530/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0564 - accuracy:  
0.9596  
Epoch 531/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0572 - accuracy:  
0.9600  
Epoch 532/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0557 - accuracy:  
0.9594  
Epoch 533/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0558 - accuracy:  
0.9605  
Epoch 534/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0557 - accuracy:  
0.9599  
Epoch 535/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0553 - accuracy:  
0.9588  
Epoch 536/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0554 - accuracy:  
0.9608  
Epoch 537/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0542 - accuracy:  
0.9598  
Epoch 538/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0561 - accuracy:  
0.9607  
Epoch 539/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0541 - accuracy:  
0.9591  
Epoch 540/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0538 - accuracy:  
0.9601  
Epoch 541/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0541 - accuracy:  
0.9598  
Epoch 542/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0535 - accuracy:  
0.9599  
Epoch 543/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0534 - accuracy:  
0.9603  
Epoch 544/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0540 - accuracy:  
0.9594  
Epoch 545/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0531 - accuracy:  
0.9592  
Epoch 546/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0531 - accuracy:  
0.9598  
Epoch 547/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0531 - accuracy:  
0.9603  
Epoch 548/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0532 - accuracy:  
0.9598  
Epoch 549/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0528 - accuracy:  
0.9594  
Epoch 550/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0531 - accuracy:  
0.9613  
Epoch 551/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0535 - accuracy:  
0.9589  
Epoch 552/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0532 - accuracy:  
0.9589  
Epoch 553/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0531 - accuracy:  
0.9596  
Epoch 554/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0539 - accuracy:  
0.9607  
Epoch 555/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0563 - accuracy:  
0.9599  
Epoch 556/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0539 - accuracy:  
0.9597  
Epoch 557/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0534 - accuracy:  
0.9603  
Epoch 558/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0532 - accuracy:  
0.9595  
Epoch 559/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0527 - accuracy:  
0.9588  
Epoch 560/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0532 - accuracy: 0.9595  
 Epoch 561/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0535 - accuracy: 0.9596  
 Epoch 562/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0531 - accuracy: 0.9589  
 Epoch 563/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0528 - accuracy: 0.9600  
 Epoch 564/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0530 - accuracy: 0.9601  
 Epoch 565/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0526 - accuracy: 0.9600  
 Epoch 566/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0527 - accuracy: 0.9594  
 Epoch 567/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0532 - accuracy: 0.9592  
 Epoch 568/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0538 - accuracy: 0.9598  
 Epoch 569/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0532 - accuracy: 0.9600  
 Epoch 570/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0546 - accuracy: 0.9589  
 Epoch 571/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0528 - accuracy: 0.9590  
 Epoch 572/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0532 - accuracy: 0.9602  
 Epoch 573/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0526 - accuracy: 0.9597  
 Epoch 574/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0529 - accuracy: 0.9594  
 Epoch 575/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0526 - accuracy: 0.9606  
 Epoch 576/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0524 - accuracy:  
0.9605  
Epoch 577/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0526 - accuracy:  
0.9599  
Epoch 578/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0527 - accuracy:  
0.9604  
Epoch 579/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0516 - accuracy:  
0.9593  
Epoch 580/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0526 - accuracy:  
0.9596  
Epoch 581/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0520 - accuracy:  
0.9608  
Epoch 582/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0537 - accuracy:  
0.9603  
Epoch 583/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0527 - accuracy:  
0.9597  
Epoch 584/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0533 - accuracy:  
0.9597  
Epoch 585/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0525 - accuracy:  
0.9603  
Epoch 586/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0524 - accuracy:  
0.9597  
Epoch 587/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0539 - accuracy:  
0.9597  
Epoch 588/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0527 - accuracy:  
0.9596  
Epoch 589/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0524 - accuracy:  
0.9593  
Epoch 590/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0532 - accuracy:  
0.9599  
Epoch 591/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0524 - accuracy:  
0.9599  
Epoch 592/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0518 - accuracy:  
0.9599  
Epoch 593/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0523 - accuracy:  
0.9596  
Epoch 594/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0520 - accuracy:  
0.9600  
Epoch 595/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0516 - accuracy:  
0.9589  
Epoch 596/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0521 - accuracy:  
0.9597  
Epoch 597/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0522 - accuracy:  
0.9600  
Epoch 598/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0515 - accuracy:  
0.9601  
Epoch 599/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0521 - accuracy:  
0.9604  
Epoch 600/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0523 - accuracy:  
0.9592  
Epoch 601/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0533 - accuracy:  
0.9590  
Epoch 602/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0522 - accuracy:  
0.9598  
Epoch 603/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0519 - accuracy:  
0.9603  
Epoch 604/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0525 - accuracy:  
0.9595  
Epoch 605/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0525 - accuracy:  
0.9605  
Epoch 606/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0519 - accuracy:  
0.9589  
Epoch 607/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0518 - accuracy:  
0.9596  
Epoch 608/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0518 - accuracy:  
0.9595  
Epoch 609/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0523 - accuracy:  
0.9602  
Epoch 610/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0515 - accuracy:  
0.9583  
Epoch 611/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0525 - accuracy:  
0.9594  
Epoch 612/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0525 - accuracy:  
0.9600  
Epoch 613/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0517 - accuracy:  
0.9599  
Epoch 614/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0523 - accuracy:  
0.9596  
Epoch 615/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0528 - accuracy:  
0.9599  
Epoch 616/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0529 - accuracy:  
0.9588  
Epoch 617/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0523 - accuracy:  
0.9595  
Epoch 618/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0518 - accuracy:  
0.9593  
Epoch 619/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0515 - accuracy:  
0.9601  
Epoch 620/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0514 - accuracy:  
0.9597  
Epoch 621/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0515 - accuracy:  
0.9583  
Epoch 622/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0518 - accuracy:  
0.9588  
Epoch 623/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0514 - accuracy:  
0.9597  
Epoch 624/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0513 - accuracy:  
0.9594  
Epoch 625/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0511 - accuracy:  
0.9599  
Epoch 626/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0511 - accuracy:  
0.9601  
Epoch 627/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0509 - accuracy:  
0.9603  
Epoch 628/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0507 - accuracy:  
0.9592  
Epoch 629/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0505 - accuracy:  
0.9594  
Epoch 630/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0508 - accuracy:  
0.9609  
Epoch 631/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0510 - accuracy:  
0.9594  
Epoch 632/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0515 - accuracy:  
0.9602  
Epoch 633/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0509 - accuracy:  
0.9592  
Epoch 634/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0508 - accuracy:  
0.9591  
Epoch 635/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0512 - accuracy:  
0.9595  
Epoch 636/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0524 - accuracy:  
0.9593  
Epoch 637/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0515 - accuracy:  
0.9610  
Epoch 638/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0520 - accuracy:  
0.9599  
Epoch 639/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0515 - accuracy:  
0.9588  
Epoch 640/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0513 - accuracy:  
0.9602  
Epoch 641/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0522 - accuracy:  
0.9589  
Epoch 642/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0509 - accuracy:  
0.9597  
Epoch 643/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0508 - accuracy:  
0.9592  
Epoch 644/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0517 - accuracy:  
0.9596  
Epoch 645/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0508 - accuracy:  
0.9604  
Epoch 646/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0504 - accuracy:  
0.9594  
Epoch 647/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0511 - accuracy:  
0.9598  
Epoch 648/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0510 - accuracy:  
0.9602  
Epoch 649/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0514 - accuracy:  
0.9590  
Epoch 650/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0511 - accuracy:  
0.9589  
Epoch 651/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0509 - accuracy:  
0.9592  
Epoch 652/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0506 - accuracy:  
0.9594  
Epoch 653/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0510 - accuracy:  
0.9606  
Epoch 654/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0507 - accuracy:  
0.9596  
Epoch 655/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0508 - accuracy:  
0.9595  
Epoch 656/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0501 - accuracy:  
 0.9596  
 Epoch 657/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0502 - accuracy:  
 0.9592  
 Epoch 658/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0507 - accuracy:  
 0.9600  
 Epoch 659/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0501 - accuracy:  
 0.9596  
 Epoch 660/100000  
 2/2 [=====] - 0s 113ms/step - loss: 0.0502 - accuracy:  
 0.9595  
 Epoch 661/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0509 - accuracy:  
 0.9600  
 Epoch 662/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0501 - accuracy:  
 0.9591  
 Epoch 663/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0510 - accuracy:  
 0.9595  
 Epoch 664/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0510 - accuracy:  
 0.9602  
 Epoch 665/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0508 - accuracy:  
 0.9597  
 Epoch 666/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0507 - accuracy:  
 0.9592  
 Epoch 667/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0500 - accuracy:  
 0.9596  
 Epoch 668/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0522 - accuracy:  
 0.9592  
 Epoch 669/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0532 - accuracy:  
 0.9606  
 Epoch 670/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0520 - accuracy:  
 0.9593  
 Epoch 671/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0523 - accuracy:  
 0.9587  
 Epoch 672/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0517 - accuracy:  
0.9592  
Epoch 673/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0505 - accuracy:  
0.9593  
Epoch 674/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0507 - accuracy:  
0.9599  
Epoch 675/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0513 - accuracy:  
0.9597  
Epoch 676/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0508 - accuracy:  
0.9598  
Epoch 677/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0506 - accuracy:  
0.9601  
Epoch 678/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0500 - accuracy:  
0.9596  
Epoch 679/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0501 - accuracy:  
0.9601  
Epoch 680/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0501 - accuracy:  
0.9601  
Epoch 681/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0502 - accuracy:  
0.9591  
Epoch 682/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0509 - accuracy:  
0.9589  
Epoch 683/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0503 - accuracy:  
0.9595  
Epoch 684/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0507 - accuracy:  
0.9605  
Epoch 685/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0500 - accuracy:  
0.9596  
Epoch 686/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0499 - accuracy:  
0.9590  
Epoch 687/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0502 - accuracy:  
0.9591  
Epoch 688/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0502 - accuracy:  
0.9598  
Epoch 689/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0508 - accuracy:  
0.9590  
Epoch 690/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0506 - accuracy:  
0.9600  
Epoch 691/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0493 - accuracy:  
0.9593  
Epoch 692/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0498 - accuracy:  
0.9601  
Epoch 693/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0501 - accuracy:  
0.9605  
Epoch 694/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0496 - accuracy:  
0.9596  
Epoch 695/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0498 - accuracy:  
0.9593  
Epoch 696/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0493 - accuracy:  
0.9592  
Epoch 697/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0496 - accuracy:  
0.9595  
Epoch 698/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0494 - accuracy:  
0.9600  
Epoch 699/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0494 - accuracy:  
0.9590  
Epoch 700/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0498 - accuracy:  
0.9591  
Epoch 701/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0501 - accuracy:  
0.9593  
Epoch 702/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0493 - accuracy:  
0.9599  
Epoch 703/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0500 - accuracy:  
0.9596  
Epoch 704/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0492 - accuracy:  
0.9597  
Epoch 705/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0499 - accuracy:  
0.9602  
Epoch 706/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0501 - accuracy:  
0.9590  
Epoch 707/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0491 - accuracy:  
0.9598  
Epoch 708/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0496 - accuracy:  
0.9604  
Epoch 709/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0491 - accuracy:  
0.9596  
Epoch 710/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0501 - accuracy:  
0.9599  
Epoch 711/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0493 - accuracy:  
0.9590  
Epoch 712/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0492 - accuracy:  
0.9605  
Epoch 713/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0491 - accuracy:  
0.9596  
Epoch 714/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0493 - accuracy:  
0.9594  
Epoch 715/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0500 - accuracy:  
0.9614  
Epoch 716/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0497 - accuracy:  
0.9595  
Epoch 717/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0518 - accuracy:  
0.9604  
Epoch 718/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0521 - accuracy:  
0.9600  
Epoch 719/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0500 - accuracy:  
0.9601  
Epoch 720/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0502 - accuracy:  
0.9597  
Epoch 721/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0502 - accuracy:  
0.9591  
Epoch 722/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0520 - accuracy:  
0.9597  
Epoch 723/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0498 - accuracy:  
0.9594  
Epoch 724/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0508 - accuracy:  
0.9595  
Epoch 725/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0512 - accuracy:  
0.9602  
Epoch 726/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0504 - accuracy:  
0.9596  
Epoch 727/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0520 - accuracy:  
0.9599  
Epoch 728/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0523 - accuracy:  
0.9590  
Epoch 729/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0533 - accuracy:  
0.9589  
Epoch 730/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0508 - accuracy:  
0.9587  
Epoch 731/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0491 - accuracy:  
0.9598  
Epoch 732/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0507 - accuracy:  
0.9597  
Epoch 733/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0503 - accuracy:  
0.9589  
Epoch 734/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0504 - accuracy:  
0.9600  
Epoch 735/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0497 - accuracy:  
0.9593  
Epoch 736/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0503 - accuracy: 0.9597  
Epoch 737/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0497 - accuracy: 0.9595  
Epoch 738/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0494 - accuracy: 0.9596  
Epoch 739/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0488 - accuracy: 0.9600  
Epoch 740/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0493 - accuracy: 0.9596  
Epoch 741/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0491 - accuracy: 0.9591  
Epoch 742/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0489 - accuracy: 0.9607  
Epoch 743/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0490 - accuracy: 0.9595  
Epoch 744/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0493 - accuracy: 0.9596  
Epoch 745/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0492 - accuracy: 0.9597  
Epoch 746/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0497 - accuracy: 0.9600  
Epoch 747/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0486 - accuracy: 0.9603  
Epoch 748/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0488 - accuracy: 0.9598  
Epoch 749/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0483 - accuracy: 0.9598  
Epoch 750/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0485 - accuracy: 0.9597  
Epoch 751/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0484 - accuracy: 0.9597  
Epoch 752/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0484 - accuracy:  
0.9605  
Epoch 753/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0489 - accuracy:  
0.9599  
Epoch 754/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0484 - accuracy:  
0.9597  
Epoch 755/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0478 - accuracy:  
0.9593  
Epoch 756/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0488 - accuracy:  
0.9599  
Epoch 757/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0487 - accuracy:  
0.9606  
Epoch 758/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0483 - accuracy:  
0.9602  
Epoch 759/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0484 - accuracy:  
0.9598  
Epoch 760/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0502 - accuracy:  
0.9602  
Epoch 761/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0490 - accuracy:  
0.9590  
Epoch 762/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0482 - accuracy:  
0.9597  
Epoch 763/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0483 - accuracy:  
0.9603  
Epoch 764/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0487 - accuracy:  
0.9599  
Epoch 765/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0486 - accuracy:  
0.9598  
Epoch 766/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0480 - accuracy:  
0.9586  
Epoch 767/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0488 - accuracy:  
0.9589  
Epoch 768/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0488 - accuracy:  
0.9594  
Epoch 769/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0482 - accuracy:  
0.9594  
Epoch 770/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0485 - accuracy:  
0.9600  
Epoch 771/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0484 - accuracy:  
0.9595  
Epoch 772/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0486 - accuracy:  
0.9591  
Epoch 773/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0478 - accuracy:  
0.9585  
Epoch 774/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0478 - accuracy:  
0.9596  
Epoch 775/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0488 - accuracy:  
0.9602  
Epoch 776/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0479 - accuracy:  
0.9604  
Epoch 777/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0480 - accuracy:  
0.9594  
Epoch 778/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0483 - accuracy:  
0.9607  
Epoch 779/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0477 - accuracy:  
0.9592  
Epoch 780/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0479 - accuracy:  
0.9596  
Epoch 781/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0482 - accuracy:  
0.9601  
Epoch 782/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0484 - accuracy:  
0.9590  
Epoch 783/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0477 - accuracy:  
0.9596  
Epoch 784/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0485 - accuracy:  
 0.9600  
 Epoch 785/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0483 - accuracy:  
 0.9597  
 Epoch 786/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0493 - accuracy:  
 0.9591  
 Epoch 787/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0494 - accuracy:  
 0.9589  
 Epoch 788/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0480 - accuracy:  
 0.9603  
 Epoch 789/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0486 - accuracy:  
 0.9593  
 Epoch 790/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0486 - accuracy:  
 0.9602  
 Epoch 791/100000  
 2/2 [=====] - 0s 113ms/step - loss: 0.0480 - accuracy:  
 0.9595  
 Epoch 792/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0484 - accuracy:  
 0.9589  
 Epoch 793/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0484 - accuracy:  
 0.9599  
 Epoch 794/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0478 - accuracy:  
 0.9591  
 Epoch 795/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0475 - accuracy:  
 0.9586  
 Epoch 796/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0484 - accuracy:  
 0.9596  
 Epoch 797/100000  
 2/2 [=====] - 0s 120ms/step - loss: 0.0479 - accuracy:  
 0.9596  
 Epoch 798/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0480 - accuracy:  
 0.9593  
 Epoch 799/100000  
 2/2 [=====] - 0s 113ms/step - loss: 0.0483 - accuracy:  
 0.9595  
 Epoch 800/100000

2/2 [=====] - 0s 113ms/step - loss: 0.0477 - accuracy:  
0.9600  
Epoch 801/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0476 - accuracy:  
0.9597  
Epoch 802/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0472 - accuracy:  
0.9589  
Epoch 803/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0475 - accuracy:  
0.9596  
Epoch 804/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0490 - accuracy:  
0.9600  
Epoch 805/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0486 - accuracy:  
0.9598  
Epoch 806/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0489 - accuracy:  
0.9598  
Epoch 807/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0484 - accuracy:  
0.9592  
Epoch 808/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0484 - accuracy:  
0.9597  
Epoch 809/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0483 - accuracy:  
0.9597  
Epoch 810/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0477 - accuracy:  
0.9587  
Epoch 811/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0475 - accuracy:  
0.9600  
Epoch 812/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0480 - accuracy:  
0.9594  
Epoch 813/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0476 - accuracy:  
0.9609  
Epoch 814/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0475 - accuracy:  
0.9598  
Epoch 815/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0484 - accuracy:  
0.9594  
Epoch 816/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0471 - accuracy:  
0.9588  
Epoch 817/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0472 - accuracy:  
0.9608  
Epoch 818/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0478 - accuracy:  
0.9595  
Epoch 819/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0480 - accuracy:  
0.9594  
Epoch 820/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0481 - accuracy:  
0.9610  
Epoch 821/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0496 - accuracy:  
0.9590  
Epoch 822/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0485 - accuracy:  
0.9593  
Epoch 823/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0498 - accuracy:  
0.9595  
Epoch 824/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0489 - accuracy:  
0.9605  
Epoch 825/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0491 - accuracy:  
0.9599  
Epoch 826/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0484 - accuracy:  
0.9601  
Epoch 827/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0485 - accuracy:  
0.9600  
Epoch 828/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0490 - accuracy:  
0.9594  
Epoch 829/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0487 - accuracy:  
0.9598  
Epoch 830/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0486 - accuracy:  
0.9590  
Epoch 831/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0475 - accuracy:  
0.9592  
Epoch 832/100000



2/2 [=====] - 0s 114ms/step - loss: 0.0477 - accuracy:  
0.9592  
Epoch 833/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0476 - accuracy:  
0.9597  
Epoch 834/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0482 - accuracy:  
0.9600  
Epoch 835/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0485 - accuracy:  
0.9602  
Epoch 836/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0490 - accuracy:  
0.9597  
Epoch 837/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0481 - accuracy:  
0.9593  
Epoch 838/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0485 - accuracy:  
0.9596  
Epoch 839/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0481 - accuracy:  
0.9599  
Epoch 840/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0482 - accuracy:  
0.9593  
Epoch 841/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0488 - accuracy:  
0.9594  
Epoch 842/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0482 - accuracy:  
0.9588  
Epoch 843/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0514 - accuracy:  
0.9592  
Epoch 844/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0498 - accuracy:  
0.9603  
Epoch 845/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0495 - accuracy:  
0.9591  
Epoch 846/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0497 - accuracy:  
0.9603  
Epoch 847/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0495 - accuracy:  
0.9590  
Epoch 848/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0484 - accuracy:  
0.9592  
Epoch 849/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0491 - accuracy:  
0.9596  
Epoch 850/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0482 - accuracy:  
0.9589  
Epoch 851/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0489 - accuracy:  
0.9600  
Epoch 852/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0480 - accuracy:  
0.9598  
Epoch 853/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0475 - accuracy:  
0.9607  
Epoch 854/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0479 - accuracy:  
0.9595  
Epoch 855/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0476 - accuracy:  
0.9602  
Epoch 856/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0479 - accuracy:  
0.9595  
Epoch 857/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0468 - accuracy:  
0.9588  
Epoch 858/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0472 - accuracy:  
0.9602  
Epoch 859/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0470 - accuracy:  
0.9607  
Epoch 860/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0470 - accuracy:  
0.9596  
Epoch 861/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0466 - accuracy:  
0.9587  
Epoch 862/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0471 - accuracy:  
0.9596  
Epoch 863/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0471 - accuracy:  
0.9599  
Epoch 864/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0469 - accuracy:  
0.9593  
Epoch 865/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0472 - accuracy:  
0.9606  
Epoch 866/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0470 - accuracy:  
0.9594  
Epoch 867/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0470 - accuracy:  
0.9597  
Epoch 868/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0472 - accuracy:  
0.9598  
Epoch 869/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0466 - accuracy:  
0.9608  
Epoch 870/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0473 - accuracy:  
0.9593  
Epoch 871/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0471 - accuracy:  
0.9590  
Epoch 872/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0466 - accuracy:  
0.9606  
Epoch 873/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0470 - accuracy:  
0.9586  
Epoch 874/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0477 - accuracy:  
0.9598  
Epoch 875/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0474 - accuracy:  
0.9603  
Epoch 876/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0476 - accuracy:  
0.9589  
Epoch 877/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0469 - accuracy:  
0.9597  
Epoch 878/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0464 - accuracy:  
0.9609  
Epoch 879/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0467 - accuracy:  
0.9600  
Epoch 880/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0469 - accuracy:  
0.9589  
Epoch 881/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0477 - accuracy:  
0.9600  
Epoch 882/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0479 - accuracy:  
0.9603  
Epoch 883/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0476 - accuracy:  
0.9586  
Epoch 884/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0472 - accuracy:  
0.9604  
Epoch 885/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0465 - accuracy:  
0.9600  
Epoch 886/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0469 - accuracy:  
0.9597  
Epoch 887/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0465 - accuracy:  
0.9596  
Epoch 888/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0467 - accuracy:  
0.9606  
Epoch 889/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0465 - accuracy:  
0.9594  
Epoch 890/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0465 - accuracy:  
0.9595  
Epoch 891/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0468 - accuracy:  
0.9599  
Epoch 892/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0469 - accuracy:  
0.9590  
Epoch 893/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0464 - accuracy:  
0.9598  
Epoch 894/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0460 - accuracy:  
0.9602  
Epoch 895/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0469 - accuracy:  
0.9595  
Epoch 896/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0463 - accuracy:  
0.9601  
Epoch 897/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0461 - accuracy:  
0.9598  
Epoch 898/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0458 - accuracy:  
0.9593  
Epoch 899/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0458 - accuracy:  
0.9590  
Epoch 900/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0457 - accuracy:  
0.9594  
Epoch 901/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0458 - accuracy:  
0.9604  
Epoch 902/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0464 - accuracy:  
0.9598  
Epoch 903/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0457 - accuracy:  
0.9596  
Epoch 904/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0468 - accuracy:  
0.9605  
Epoch 905/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0479 - accuracy:  
0.9587  
Epoch 906/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0471 - accuracy:  
0.9605  
Epoch 907/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0476 - accuracy:  
0.9595  
Epoch 908/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0475 - accuracy:  
0.9588  
Epoch 909/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0473 - accuracy:  
0.9595  
Epoch 910/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0471 - accuracy:  
0.9589  
Epoch 911/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0474 - accuracy:  
0.9592  
Epoch 912/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0470 - accuracy:  
0.9594  
Epoch 913/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0476 - accuracy:  
0.9595  
Epoch 914/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0462 - accuracy:  
0.9592  
Epoch 915/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0463 - accuracy:  
0.9597  
Epoch 916/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0462 - accuracy:  
0.9597  
Epoch 917/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0464 - accuracy:  
0.9600  
Epoch 918/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0465 - accuracy:  
0.9596  
Epoch 919/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0461 - accuracy:  
0.9597  
Epoch 920/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0461 - accuracy:  
0.9592  
Epoch 921/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0463 - accuracy:  
0.9595  
Epoch 922/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0459 - accuracy:  
0.9609  
Epoch 923/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0467 - accuracy:  
0.9604  
Epoch 924/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0458 - accuracy:  
0.9599  
Epoch 925/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0466 - accuracy:  
0.9598  
Epoch 926/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0457 - accuracy:  
0.9600  
Epoch 927/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0461 - accuracy:  
0.9601  
Epoch 928/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0459 - accuracy: 0.9594  
 Epoch 929/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0463 - accuracy: 0.9594  
 Epoch 930/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0458 - accuracy: 0.9604  
 Epoch 931/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0454 - accuracy: 0.9600  
 Epoch 932/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0463 - accuracy: 0.9588  
 Epoch 933/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0459 - accuracy: 0.9595  
 Epoch 934/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0461 - accuracy: 0.9593  
 Epoch 935/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0472 - accuracy: 0.9605  
 Epoch 936/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0463 - accuracy: 0.9600  
 Epoch 937/100000  
 2/2 [=====] - 0s 120ms/step - loss: 0.0465 - accuracy: 0.9602  
 Epoch 938/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0470 - accuracy: 0.9597  
 Epoch 939/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0467 - accuracy: 0.9601  
 Epoch 940/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0457 - accuracy: 0.9590  
 Epoch 941/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0462 - accuracy: 0.9596  
 Epoch 942/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0456 - accuracy: 0.9600  
 Epoch 943/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0460 - accuracy: 0.9605  
 Epoch 944/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0459 - accuracy:  
0.9597  
Epoch 945/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0462 - accuracy:  
0.9601  
Epoch 946/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0460 - accuracy:  
0.9591  
Epoch 947/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0463 - accuracy:  
0.9596  
Epoch 948/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0456 - accuracy:  
0.9600  
Epoch 949/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0458 - accuracy:  
0.9592  
Epoch 950/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0463 - accuracy:  
0.9601  
Epoch 951/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0468 - accuracy:  
0.9597  
Epoch 952/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0461 - accuracy:  
0.9597  
Epoch 953/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0460 - accuracy:  
0.9600  
Epoch 954/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0459 - accuracy:  
0.9594  
Epoch 955/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0461 - accuracy:  
0.9594  
Epoch 956/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0456 - accuracy:  
0.9597  
Epoch 957/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0464 - accuracy:  
0.9595  
Epoch 958/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0460 - accuracy:  
0.9599  
Epoch 959/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0460 - accuracy:  
0.9598  
Epoch 960/100000



2/2 [=====] - 0s 116ms/step - loss: 0.0465 - accuracy:  
0.9600  
Epoch 961/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0458 - accuracy:  
0.9596  
Epoch 962/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0465 - accuracy:  
0.9603  
Epoch 963/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0455 - accuracy:  
0.9601  
Epoch 964/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0463 - accuracy:  
0.9595  
Epoch 965/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0460 - accuracy:  
0.9600  
Epoch 966/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0459 - accuracy:  
0.9601  
Epoch 967/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0461 - accuracy:  
0.9600  
Epoch 968/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0455 - accuracy:  
0.9604  
Epoch 969/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0456 - accuracy:  
0.9603  
Epoch 970/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0455 - accuracy:  
0.9596  
Epoch 971/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0454 - accuracy:  
0.9595  
Epoch 972/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0449 - accuracy:  
0.9588  
Epoch 973/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0449 - accuracy:  
0.9592  
Epoch 974/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0454 - accuracy:  
0.9597  
Epoch 975/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0456 - accuracy:  
0.9601  
Epoch 976/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0453 - accuracy:  
0.9602  
Epoch 977/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0462 - accuracy:  
0.9600  
Epoch 978/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0470 - accuracy:  
0.9595  
Epoch 979/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0459 - accuracy:  
0.9593  
Epoch 980/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0471 - accuracy:  
0.9595  
Epoch 981/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0467 - accuracy:  
0.9605  
Epoch 982/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0460 - accuracy:  
0.9604  
Epoch 983/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0454 - accuracy:  
0.9603  
Epoch 984/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0450 - accuracy:  
0.9596  
Epoch 985/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0453 - accuracy:  
0.9594  
Epoch 986/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0454 - accuracy:  
0.9604  
Epoch 987/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0454 - accuracy:  
0.9600  
Epoch 988/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0452 - accuracy:  
0.9603  
Epoch 989/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0447 - accuracy:  
0.9601  
Epoch 990/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0457 - accuracy:  
0.9597  
Epoch 991/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0467 - accuracy:  
0.9594  
Epoch 992/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0463 - accuracy:  
 0.9600  
 Epoch 993/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0468 - accuracy:  
 0.9601  
 Epoch 994/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0465 - accuracy:  
 0.9609  
 Epoch 995/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0475 - accuracy:  
 0.9597  
 Epoch 996/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0464 - accuracy:  
 0.9595  
 Epoch 997/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0463 - accuracy:  
 0.9603  
 Epoch 998/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0463 - accuracy:  
 0.9600  
 Epoch 999/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0453 - accuracy:  
 0.9595  
 Epoch 1000/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0452 - accuracy:  
 0.9597  
 Epoch 1001/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0461 - accuracy:  
 0.9599  
 Epoch 1002/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0452 - accuracy:  
 0.9601  
 Epoch 1003/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0451 - accuracy:  
 0.9594  
 Epoch 1004/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0446 - accuracy:  
 0.9590  
 Epoch 1005/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0450 - accuracy:  
 0.9593  
 Epoch 1006/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0448 - accuracy:  
 0.9601  
 Epoch 1007/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0451 - accuracy:  
 0.9591  
 Epoch 1008/100000

2/2 [=====] - 0s 120ms/step - loss: 0.0451 - accuracy: 0.9595  
 Epoch 1009/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0451 - accuracy: 0.9606  
 Epoch 1010/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0440 - accuracy: 0.9599  
 Epoch 1011/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0449 - accuracy: 0.9597  
 Epoch 1012/100000  
 2/2 [=====] - 0s 123ms/step - loss: 0.0454 - accuracy: 0.9594  
 Epoch 1013/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0446 - accuracy: 0.9593  
 Epoch 1014/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0450 - accuracy: 0.9592  
 Epoch 1015/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0448 - accuracy: 0.9605  
 Epoch 1016/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0465 - accuracy: 0.9597  
 Epoch 1017/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0453 - accuracy: 0.9592  
 Epoch 1018/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0450 - accuracy: 0.9603  
 Epoch 1019/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0447 - accuracy: 0.9595  
 Epoch 1020/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0447 - accuracy: 0.9599  
 Epoch 1021/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0453 - accuracy: 0.9592  
 Epoch 1022/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0454 - accuracy: 0.9591  
 Epoch 1023/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0448 - accuracy: 0.9598  
 Epoch 1024/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0458 - accuracy: 0.9597  
 Epoch 1025/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0449 - accuracy: 0.9599  
 Epoch 1026/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0451 - accuracy: 0.9589  
 Epoch 1027/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0490 - accuracy: 0.9588  
 Epoch 1028/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0474 - accuracy: 0.9600  
 Epoch 1029/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0465 - accuracy: 0.9594  
 Epoch 1030/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0466 - accuracy: 0.9594  
 Epoch 1031/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0460 - accuracy: 0.9600  
 Epoch 1032/100000  
 2/2 [=====] - 0s 113ms/step - loss: 0.0460 - accuracy: 0.9594  
 Epoch 1033/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0450 - accuracy: 0.9590  
 Epoch 1034/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0455 - accuracy: 0.9592  
 Epoch 1035/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0461 - accuracy: 0.9603  
 Epoch 1036/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0458 - accuracy: 0.9602  
 Epoch 1037/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0459 - accuracy: 0.9593  
 Epoch 1038/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0468 - accuracy: 0.9601  
 Epoch 1039/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0454 - accuracy: 0.9598  
 Epoch 1040/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0454 - accuracy:  
 0.9599  
 Epoch 1041/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0458 - accuracy:  
 0.9594  
 Epoch 1042/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0455 - accuracy:  
 0.9601  
 Epoch 1043/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0458 - accuracy:  
 0.9593  
 Epoch 1044/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0450 - accuracy:  
 0.9595  
 Epoch 1045/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0448 - accuracy:  
 0.9594  
 Epoch 1046/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0446 - accuracy:  
 0.9593  
 Epoch 1047/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0454 - accuracy:  
 0.9606  
 Epoch 1048/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0458 - accuracy:  
 0.9600  
 Epoch 1049/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0459 - accuracy:  
 0.9591  
 Epoch 1050/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0455 - accuracy:  
 0.9591  
 Epoch 1051/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0465 - accuracy:  
 0.9593  
 Epoch 1052/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0467 - accuracy:  
 0.9593  
 Epoch 1053/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0447 - accuracy:  
 0.9599  
 Epoch 1054/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0451 - accuracy:  
 0.9598  
 Epoch 1055/100000  
 2/2 [=====] - 0s 113ms/step - loss: 0.0456 - accuracy:  
 0.9586  
 Epoch 1056/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0456 - accuracy: 0.9598  
 Epoch 1057/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0455 - accuracy: 0.9604  
 Epoch 1058/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0453 - accuracy: 0.9587  
 Epoch 1059/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0449 - accuracy: 0.9595  
 Epoch 1060/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0444 - accuracy: 0.9598  
 Epoch 1061/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0446 - accuracy: 0.9594  
 Epoch 1062/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0451 - accuracy: 0.9597  
 Epoch 1063/100000  
 2/2 [=====] - 0s 113ms/step - loss: 0.0448 - accuracy: 0.9595  
 Epoch 1064/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0440 - accuracy: 0.9603  
 Epoch 1065/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0445 - accuracy: 0.9596  
 Epoch 1066/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0442 - accuracy: 0.9595  
 Epoch 1067/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0443 - accuracy: 0.9594  
 Epoch 1068/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0445 - accuracy: 0.9605  
 Epoch 1069/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0442 - accuracy: 0.9601  
 Epoch 1070/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0447 - accuracy: 0.9607  
 Epoch 1071/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0444 - accuracy: 0.9597  
 Epoch 1072/100000

2/2 [=====] - 0s 119ms/step - loss: 0.0449 - accuracy:  
0.9593  
Epoch 1073/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0445 - accuracy:  
0.9593  
Epoch 1074/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0446 - accuracy:  
0.9594  
Epoch 1075/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0443 - accuracy:  
0.9588  
Epoch 1076/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0441 - accuracy:  
0.9598  
Epoch 1077/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0443 - accuracy:  
0.9592  
Epoch 1078/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0443 - accuracy:  
0.9596  
Epoch 1079/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0445 - accuracy:  
0.9596  
Epoch 1080/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0445 - accuracy:  
0.9590  
Epoch 1081/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0441 - accuracy:  
0.9586  
Epoch 1082/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0451 - accuracy:  
0.9602  
Epoch 1083/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0450 - accuracy:  
0.9594  
Epoch 1084/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0447 - accuracy:  
0.9592  
Epoch 1085/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0449 - accuracy:  
0.9597  
Epoch 1086/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0455 - accuracy:  
0.9597  
Epoch 1087/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0458 - accuracy:  
0.9602  
Epoch 1088/100000



2/2 [=====] - 0s 114ms/step - loss: 0.0459 - accuracy:  
0.9597  
Epoch 1089/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0458 - accuracy:  
0.9605  
Epoch 1090/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0463 - accuracy:  
0.9600  
Epoch 1091/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0457 - accuracy:  
0.9601  
Epoch 1092/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0451 - accuracy:  
0.9599  
Epoch 1093/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0446 - accuracy:  
0.9594  
Epoch 1094/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0446 - accuracy:  
0.9594  
Epoch 1095/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0454 - accuracy:  
0.9593  
Epoch 1096/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0455 - accuracy:  
0.9594  
Epoch 1097/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0456 - accuracy:  
0.9597  
Epoch 1098/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0461 - accuracy:  
0.9601  
Epoch 1099/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0448 - accuracy:  
0.9598  
Epoch 1100/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0441 - accuracy:  
0.9594  
Epoch 1101/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0447 - accuracy:  
0.9604  
Epoch 1102/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0442 - accuracy:  
0.9601  
Epoch 1103/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0445 - accuracy:  
0.9601  
Epoch 1104/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0450 - accuracy: 0.9593  
 Epoch 1105/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0460 - accuracy: 0.9600  
 Epoch 1106/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0443 - accuracy: 0.9604  
 Epoch 1107/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0441 - accuracy: 0.9589  
 Epoch 1108/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0445 - accuracy: 0.9601  
 Epoch 1109/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0449 - accuracy: 0.9594  
 Epoch 1110/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0446 - accuracy: 0.9601  
 Epoch 1111/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0444 - accuracy: 0.9595  
 Epoch 1112/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0439 - accuracy: 0.9596  
 Epoch 1113/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0444 - accuracy: 0.9595  
 Epoch 1114/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0446 - accuracy: 0.9595  
 Epoch 1115/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0449 - accuracy: 0.9598  
 Epoch 1116/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0448 - accuracy: 0.9601  
 Epoch 1117/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0447 - accuracy: 0.9588  
 Epoch 1118/100000  
 2/2 [=====] - 0s 113ms/step - loss: 0.0441 - accuracy: 0.9599  
 Epoch 1119/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0442 - accuracy: 0.9598  
 Epoch 1120/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0442 - accuracy:  
0.9592  
Epoch 1121/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0444 - accuracy:  
0.9596  
Epoch 1122/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0451 - accuracy:  
0.9589  
Epoch 1123/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0450 - accuracy:  
0.9595  
Epoch 1124/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0453 - accuracy:  
0.9590  
Epoch 1125/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0440 - accuracy:  
0.9598  
Epoch 1126/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0449 - accuracy:  
0.9598  
Epoch 1127/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0444 - accuracy:  
0.9601  
Epoch 1128/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0445 - accuracy:  
0.9596  
Epoch 1129/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0442 - accuracy:  
0.9596  
Epoch 1130/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0447 - accuracy:  
0.9606  
Epoch 1131/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0453 - accuracy:  
0.9591  
Epoch 1132/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0465 - accuracy:  
0.9600  
Epoch 1133/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0468 - accuracy:  
0.9596  
Epoch 1134/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0451 - accuracy:  
0.9606  
Epoch 1135/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0446 - accuracy:  
0.9605  
Epoch 1136/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0443 - accuracy:  
0.9600  
Epoch 1137/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0442 - accuracy:  
0.9592  
Epoch 1138/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0440 - accuracy:  
0.9605  
Epoch 1139/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0438 - accuracy:  
0.9602  
Epoch 1140/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0445 - accuracy:  
0.9608  
Epoch 1141/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0441 - accuracy:  
0.9596  
Epoch 1142/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0447 - accuracy:  
0.9598  
Epoch 1143/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0441 - accuracy:  
0.9593  
Epoch 1144/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0443 - accuracy:  
0.9595  
Epoch 1145/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0441 - accuracy:  
0.9593  
Epoch 1146/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0447 - accuracy:  
0.9598  
Epoch 1147/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0432 - accuracy:  
0.9593  
Epoch 1148/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0441 - accuracy:  
0.9600  
Epoch 1149/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0435 - accuracy:  
0.9589  
Epoch 1150/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0437 - accuracy:  
0.9603  
Epoch 1151/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0438 - accuracy:  
0.9591  
Epoch 1152/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0446 - accuracy: 0.9601  
Epoch 1153/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0435 - accuracy: 0.9587  
Epoch 1154/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0434 - accuracy: 0.9599  
Epoch 1155/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0441 - accuracy: 0.9592  
Epoch 1156/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0439 - accuracy: 0.9591  
Epoch 1157/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0440 - accuracy: 0.9594  
Epoch 1158/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0440 - accuracy: 0.9593  
Epoch 1159/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0432 - accuracy: 0.9596  
Epoch 1160/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0438 - accuracy: 0.9600  
Epoch 1161/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0438 - accuracy: 0.9598  
Epoch 1162/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0435 - accuracy: 0.9599  
Epoch 1163/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0435 - accuracy: 0.9595  
Epoch 1164/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0438 - accuracy: 0.9599  
Epoch 1165/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0435 - accuracy: 0.9598  
Epoch 1166/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0432 - accuracy: 0.9593  
Epoch 1167/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0433 - accuracy: 0.9603  
Epoch 1168/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0439 - accuracy:  
0.9591  
Epoch 1169/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0436 - accuracy:  
0.9582  
Epoch 1170/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0435 - accuracy:  
0.9591  
Epoch 1171/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0444 - accuracy:  
0.9597  
Epoch 1172/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0435 - accuracy:  
0.9598  
Epoch 1173/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0448 - accuracy:  
0.9596  
Epoch 1174/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0448 - accuracy:  
0.9593  
Epoch 1175/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0438 - accuracy:  
0.9603  
Epoch 1176/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0441 - accuracy:  
0.9598  
Epoch 1177/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0442 - accuracy:  
0.9600  
Epoch 1178/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0447 - accuracy:  
0.9607  
Epoch 1179/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0444 - accuracy:  
0.9596  
Epoch 1180/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0439 - accuracy:  
0.9597  
Epoch 1181/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0441 - accuracy:  
0.9596  
Epoch 1182/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0435 - accuracy:  
0.9590  
Epoch 1183/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0438 - accuracy:  
0.9590  
Epoch 1184/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0448 - accuracy:  
0.9600  
Epoch 1185/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0444 - accuracy:  
0.9587  
Epoch 1186/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0431 - accuracy:  
0.9597  
Epoch 1187/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0446 - accuracy:  
0.9598  
Epoch 1188/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0439 - accuracy:  
0.9602  
Epoch 1189/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0443 - accuracy:  
0.9598  
Epoch 1190/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0436 - accuracy:  
0.9599  
Epoch 1191/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0443 - accuracy:  
0.9598  
Epoch 1192/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0431 - accuracy:  
0.9605  
Epoch 1193/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0448 - accuracy:  
0.9604  
Epoch 1194/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0437 - accuracy:  
0.9610  
Epoch 1195/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0439 - accuracy:  
0.9611  
Epoch 1196/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0433 - accuracy:  
0.9594  
Epoch 1197/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0430 - accuracy:  
0.9589  
Epoch 1198/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0436 - accuracy:  
0.9596  
Epoch 1199/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0432 - accuracy:  
0.9603  
Epoch 1200/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0435 - accuracy: 0.9597  
Epoch 1201/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0436 - accuracy: 0.9593  
Epoch 1202/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0433 - accuracy: 0.9602  
Epoch 1203/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0442 - accuracy: 0.9599  
Epoch 1204/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0440 - accuracy: 0.9600  
Epoch 1205/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0433 - accuracy: 0.9590  
Epoch 1206/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0438 - accuracy: 0.9598  
Epoch 1207/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0438 - accuracy: 0.9596  
Epoch 1208/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0435 - accuracy: 0.9597  
Epoch 1209/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0434 - accuracy: 0.9599  
Epoch 1210/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0443 - accuracy: 0.9603  
Epoch 1211/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0438 - accuracy: 0.9595  
Epoch 1212/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0437 - accuracy: 0.9598  
Epoch 1213/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0435 - accuracy: 0.9592  
Epoch 1214/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0434 - accuracy: 0.9599  
Epoch 1215/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0431 - accuracy: 0.9594  
Epoch 1216/100000



2/2 [=====] - 0s 114ms/step - loss: 0.0438 - accuracy: 0.9592  
 Epoch 1217/100000  
 2/2 [=====] - 0s 113ms/step - loss: 0.0433 - accuracy: 0.9593  
 Epoch 1218/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0437 - accuracy: 0.9599  
 Epoch 1219/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0441 - accuracy: 0.9591  
 Epoch 1220/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0438 - accuracy: 0.9597  
 Epoch 1221/100000  
 2/2 [=====] - 0s 113ms/step - loss: 0.0442 - accuracy: 0.9599  
 Epoch 1222/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0431 - accuracy: 0.9598  
 Epoch 1223/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0429 - accuracy: 0.9597  
 Epoch 1224/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0435 - accuracy: 0.9600  
 Epoch 1225/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0434 - accuracy: 0.9600  
 Epoch 1226/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0437 - accuracy: 0.9602  
 Epoch 1227/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0429 - accuracy: 0.9582  
 Epoch 1228/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0437 - accuracy: 0.9601  
 Epoch 1229/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0441 - accuracy: 0.9589  
 Epoch 1230/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0447 - accuracy: 0.9596  
 Epoch 1231/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0432 - accuracy: 0.9593  
 Epoch 1232/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0440 - accuracy: 0.9605  
Epoch 1233/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0436 - accuracy: 0.9602  
Epoch 1234/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0442 - accuracy: 0.9593  
Epoch 1235/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0445 - accuracy: 0.9600  
Epoch 1236/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0441 - accuracy: 0.9604  
Epoch 1237/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0437 - accuracy: 0.9599  
Epoch 1238/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0432 - accuracy: 0.9600  
Epoch 1239/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0431 - accuracy: 0.9600  
Epoch 1240/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0439 - accuracy: 0.9599  
Epoch 1241/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0432 - accuracy: 0.9596  
Epoch 1242/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0430 - accuracy: 0.9592  
Epoch 1243/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0435 - accuracy: 0.9605  
Epoch 1244/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0441 - accuracy: 0.9609  
Epoch 1245/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0437 - accuracy: 0.9606  
Epoch 1246/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0441 - accuracy: 0.9603  
Epoch 1247/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0432 - accuracy: 0.9599  
Epoch 1248/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0430 - accuracy:  
0.9590  
Epoch 1249/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0435 - accuracy:  
0.9612  
Epoch 1250/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0427 - accuracy:  
0.9590  
Epoch 1251/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0431 - accuracy:  
0.9594  
Epoch 1252/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0438 - accuracy:  
0.9591  
Epoch 1253/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0434 - accuracy:  
0.9596  
Epoch 1254/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0437 - accuracy:  
0.9606  
Epoch 1255/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0435 - accuracy:  
0.9592  
Epoch 1256/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0431 - accuracy:  
0.9594  
Epoch 1257/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0440 - accuracy:  
0.9602  
Epoch 1258/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0431 - accuracy:  
0.9593  
Epoch 1259/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0426 - accuracy:  
0.9594  
Epoch 1260/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0425 - accuracy:  
0.9596  
Epoch 1261/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0436 - accuracy:  
0.9591  
Epoch 1262/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0452 - accuracy:  
0.9599  
Epoch 1263/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0439 - accuracy:  
0.9595  
Epoch 1264/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0445 - accuracy:  
0.9598  
Epoch 1265/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0439 - accuracy:  
0.9598  
Epoch 1266/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0432 - accuracy:  
0.9592  
Epoch 1267/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0442 - accuracy:  
0.9594  
Epoch 1268/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0439 - accuracy:  
0.9608  
Epoch 1269/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0436 - accuracy:  
0.9601  
Epoch 1270/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0429 - accuracy:  
0.9593  
Epoch 1271/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0430 - accuracy:  
0.9593  
Epoch 1272/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0429 - accuracy:  
0.9591  
Epoch 1273/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0424 - accuracy:  
0.9588  
Epoch 1274/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0432 - accuracy:  
0.9606  
Epoch 1275/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0430 - accuracy:  
0.9592  
Epoch 1276/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0426 - accuracy:  
0.9591  
Epoch 1277/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0424 - accuracy:  
0.9591  
Epoch 1278/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0430 - accuracy:  
0.9593  
Epoch 1279/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0424 - accuracy:  
0.9599  
Epoch 1280/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0430 - accuracy:  
0.9603  
Epoch 1281/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0432 - accuracy:  
0.9593  
Epoch 1282/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0434 - accuracy:  
0.9604  
Epoch 1283/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0470 - accuracy:  
0.9596  
Epoch 1284/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0522 - accuracy:  
0.9600  
Epoch 1285/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0580 - accuracy:  
0.9599  
Epoch 1286/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0522 - accuracy:  
0.9590  
Epoch 1287/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0498 - accuracy:  
0.9606  
Epoch 1288/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0500 - accuracy:  
0.9595  
Epoch 1289/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0494 - accuracy:  
0.9594  
Epoch 1290/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0487 - accuracy:  
0.9595  
Epoch 1291/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0473 - accuracy:  
0.9596  
Epoch 1292/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0481 - accuracy:  
0.9596  
Epoch 1293/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0464 - accuracy:  
0.9586  
Epoch 1294/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0467 - accuracy:  
0.9599  
Epoch 1295/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0455 - accuracy:  
0.9594  
Epoch 1296/100000

2/2 [=====] - 0s 123ms/step - loss: 0.0454 - accuracy: 0.9597  
Epoch 1297/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0445 - accuracy: 0.9598  
Epoch 1298/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0453 - accuracy: 0.9596  
Epoch 1299/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0437 - accuracy: 0.9597  
Epoch 1300/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0439 - accuracy: 0.9592  
Epoch 1301/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0440 - accuracy: 0.9600  
Epoch 1302/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0439 - accuracy: 0.9605  
Epoch 1303/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0433 - accuracy: 0.9598  
Epoch 1304/100000  
2/2 [=====] - 0s 128ms/step - loss: 0.0432 - accuracy: 0.9598  
Epoch 1305/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0432 - accuracy: 0.9595  
Epoch 1306/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0431 - accuracy: 0.9593  
Epoch 1307/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0428 - accuracy: 0.9591  
Epoch 1308/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0428 - accuracy: 0.9608  
Epoch 1309/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0432 - accuracy: 0.9591  
Epoch 1310/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0429 - accuracy: 0.9600  
Epoch 1311/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0427 - accuracy: 0.9589  
Epoch 1312/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0422 - accuracy:  
0.9601  
Epoch 1313/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0431 - accuracy:  
0.9599  
Epoch 1314/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0436 - accuracy:  
0.9598  
Epoch 1315/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0440 - accuracy:  
0.9607  
Epoch 1316/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0457 - accuracy:  
0.9593  
Epoch 1317/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0452 - accuracy:  
0.9590  
Epoch 1318/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0455 - accuracy:  
0.9600  
Epoch 1319/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0447 - accuracy:  
0.9603  
Epoch 1320/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0450 - accuracy:  
0.9597  
Epoch 1321/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0449 - accuracy:  
0.9596  
Epoch 1322/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0447 - accuracy:  
0.9604  
Epoch 1323/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0430 - accuracy:  
0.9600  
Epoch 1324/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0438 - accuracy:  
0.9595  
Epoch 1325/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0443 - accuracy:  
0.9595  
Epoch 1326/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0428 - accuracy:  
0.9591  
Epoch 1327/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0431 - accuracy:  
0.9589  
Epoch 1328/100000

2/2 [=====] - 0s 119ms/step - loss: 0.0429 - accuracy: 0.9608  
 Epoch 1329/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0429 - accuracy: 0.9596  
 Epoch 1330/100000  
 2/2 [=====] - 0s 113ms/step - loss: 0.0429 - accuracy: 0.9593  
 Epoch 1331/100000  
 2/2 [=====] - 0s 121ms/step - loss: 0.0422 - accuracy: 0.9587  
 Epoch 1332/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0424 - accuracy: 0.9589  
 Epoch 1333/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0425 - accuracy: 0.9599  
 Epoch 1334/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0423 - accuracy: 0.9595  
 Epoch 1335/100000  
 2/2 [=====] - 0s 113ms/step - loss: 0.0427 - accuracy: 0.9594  
 Epoch 1336/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0431 - accuracy: 0.9600  
 Epoch 1337/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0429 - accuracy: 0.9595  
 Epoch 1338/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0429 - accuracy: 0.9597  
 Epoch 1339/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0431 - accuracy: 0.9604  
 Epoch 1340/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0430 - accuracy: 0.9605  
 Epoch 1341/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0426 - accuracy: 0.9598  
 Epoch 1342/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0426 - accuracy: 0.9607  
 Epoch 1343/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0428 - accuracy: 0.9600  
 Epoch 1344/100000



2/2 [=====] - 0s 117ms/step - loss: 0.0427 - accuracy:  
0.9601  
Epoch 1345/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0422 - accuracy:  
0.9601  
Epoch 1346/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0426 - accuracy:  
0.9583  
Epoch 1347/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0430 - accuracy:  
0.9599  
Epoch 1348/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0428 - accuracy:  
0.9600  
Epoch 1349/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0428 - accuracy:  
0.9600  
Epoch 1350/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0428 - accuracy:  
0.9596  
Epoch 1351/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0427 - accuracy:  
0.9601  
Epoch 1352/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0425 - accuracy:  
0.9600  
Epoch 1353/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0425 - accuracy:  
0.9597  
Epoch 1354/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0422 - accuracy:  
0.9592  
Epoch 1355/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0422 - accuracy:  
0.9596  
Epoch 1356/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0424 - accuracy:  
0.9593  
Epoch 1357/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0423 - accuracy:  
0.9600  
Epoch 1358/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0426 - accuracy:  
0.9601  
Epoch 1359/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0419 - accuracy:  
0.9596  
Epoch 1360/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0425 - accuracy:  
0.9596  
Epoch 1361/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0426 - accuracy:  
0.9605  
Epoch 1362/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0424 - accuracy:  
0.9595  
Epoch 1363/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0429 - accuracy:  
0.9602  
Epoch 1364/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0426 - accuracy:  
0.9589  
Epoch 1365/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0424 - accuracy:  
0.9595  
Epoch 1366/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0422 - accuracy:  
0.9607  
Epoch 1367/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0425 - accuracy:  
0.9598  
Epoch 1368/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0427 - accuracy:  
0.9602  
Epoch 1369/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0428 - accuracy:  
0.9609  
Epoch 1370/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0440 - accuracy:  
0.9590  
Epoch 1371/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0465 - accuracy:  
0.9601  
Epoch 1372/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0451 - accuracy:  
0.9610  
Epoch 1373/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0434 - accuracy:  
0.9600  
Epoch 1374/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0426 - accuracy:  
0.9592  
Epoch 1375/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0428 - accuracy:  
0.9601  
Epoch 1376/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0428 - accuracy:  
0.9596  
Epoch 1377/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0421 - accuracy:  
0.9597  
Epoch 1378/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0429 - accuracy:  
0.9605  
Epoch 1379/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0421 - accuracy:  
0.9584  
Epoch 1380/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0425 - accuracy:  
0.9598  
Epoch 1381/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0436 - accuracy:  
0.9594  
Epoch 1382/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0427 - accuracy:  
0.9596  
Epoch 1383/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0418 - accuracy:  
0.9598  
Epoch 1384/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0425 - accuracy:  
0.9601  
Epoch 1385/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0424 - accuracy:  
0.9610  
Epoch 1386/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0424 - accuracy:  
0.9599  
Epoch 1387/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0423 - accuracy:  
0.9599  
Epoch 1388/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0432 - accuracy:  
0.9605  
Epoch 1389/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0420 - accuracy:  
0.9602  
Epoch 1390/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0424 - accuracy:  
0.9596  
Epoch 1391/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0421 - accuracy:  
0.9598  
Epoch 1392/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0425 - accuracy: 0.9599  
Epoch 1393/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0424 - accuracy: 0.9593  
Epoch 1394/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0426 - accuracy: 0.9591  
Epoch 1395/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0424 - accuracy: 0.9598  
Epoch 1396/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0419 - accuracy: 0.9592  
Epoch 1397/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0416 - accuracy: 0.9588  
Epoch 1398/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0415 - accuracy: 0.9596  
Epoch 1399/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0417 - accuracy: 0.9592  
Epoch 1400/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0416 - accuracy: 0.9595  
Epoch 1401/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0416 - accuracy: 0.9598  
Epoch 1402/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0416 - accuracy: 0.9599  
Epoch 1403/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0422 - accuracy: 0.9596  
Epoch 1404/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0419 - accuracy: 0.9590  
Epoch 1405/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0422 - accuracy: 0.9599  
Epoch 1406/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0417 - accuracy: 0.9594  
Epoch 1407/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0421 - accuracy: 0.9607  
Epoch 1408/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0417 - accuracy:  
0.9594  
Epoch 1409/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0428 - accuracy:  
0.9601  
Epoch 1410/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0437 - accuracy:  
0.9597  
Epoch 1411/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0446 - accuracy:  
0.9601  
Epoch 1412/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0433 - accuracy:  
0.9596  
Epoch 1413/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0425 - accuracy:  
0.9598  
Epoch 1414/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0420 - accuracy:  
0.9592  
Epoch 1415/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0427 - accuracy:  
0.9598  
Epoch 1416/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0426 - accuracy:  
0.9595  
Epoch 1417/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0427 - accuracy:  
0.9596  
Epoch 1418/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0418 - accuracy:  
0.9595  
Epoch 1419/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0426 - accuracy:  
0.9603  
Epoch 1420/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0426 - accuracy:  
0.9601  
Epoch 1421/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0428 - accuracy:  
0.9603  
Epoch 1422/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0429 - accuracy:  
0.9595  
Epoch 1423/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0421 - accuracy:  
0.9599  
Epoch 1424/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0426 - accuracy:  
 0.9601  
 Epoch 1425/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0423 - accuracy:  
 0.9602  
 Epoch 1426/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0428 - accuracy:  
 0.9597  
 Epoch 1427/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0419 - accuracy:  
 0.9593  
 Epoch 1428/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0424 - accuracy:  
 0.9599  
 Epoch 1429/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0426 - accuracy:  
 0.9593  
 Epoch 1430/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0420 - accuracy:  
 0.9591  
 Epoch 1431/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0427 - accuracy:  
 0.9599  
 Epoch 1432/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0422 - accuracy:  
 0.9591  
 Epoch 1433/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0423 - accuracy:  
 0.9594  
 Epoch 1434/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0427 - accuracy:  
 0.9602  
 Epoch 1435/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0421 - accuracy:  
 0.9589  
 Epoch 1436/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0418 - accuracy:  
 0.9600  
 Epoch 1437/100000  
 2/2 [=====] - 0s 113ms/step - loss: 0.0426 - accuracy:  
 0.9605  
 Epoch 1438/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0426 - accuracy:  
 0.9596  
 Epoch 1439/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0433 - accuracy:  
 0.9604  
 Epoch 1440/100000

2/2 [=====] - 0s 113ms/step - loss: 0.0423 - accuracy:  
0.9593  
Epoch 1441/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0428 - accuracy:  
0.9595  
Epoch 1442/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0428 - accuracy:  
0.9598  
Epoch 1443/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0429 - accuracy:  
0.9596  
Epoch 1444/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0427 - accuracy:  
0.9595  
Epoch 1445/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0427 - accuracy:  
0.9592  
Epoch 1446/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0420 - accuracy:  
0.9597  
Epoch 1447/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0419 - accuracy:  
0.9591  
Epoch 1448/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0417 - accuracy:  
0.9585  
Epoch 1449/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0422 - accuracy:  
0.9594  
Epoch 1450/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0426 - accuracy:  
0.9594  
Epoch 1451/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0416 - accuracy:  
0.9589  
Epoch 1452/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0421 - accuracy:  
0.9605  
Epoch 1453/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0415 - accuracy:  
0.9591  
Epoch 1454/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0419 - accuracy:  
0.9602  
Epoch 1455/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0419 - accuracy:  
0.9593  
Epoch 1456/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0414 - accuracy:  
0.9583  
Epoch 1457/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0419 - accuracy:  
0.9602  
Epoch 1458/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0426 - accuracy:  
0.9600  
Epoch 1459/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0421 - accuracy:  
0.9596  
Epoch 1460/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0419 - accuracy:  
0.9602  
Epoch 1461/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0418 - accuracy:  
0.9589  
Epoch 1462/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0418 - accuracy:  
0.9597  
Epoch 1463/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0425 - accuracy:  
0.9592  
Epoch 1464/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0427 - accuracy:  
0.9593  
Epoch 1465/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0423 - accuracy:  
0.9600  
Epoch 1466/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0416 - accuracy:  
0.9596  
Epoch 1467/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0416 - accuracy:  
0.9595  
Epoch 1468/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0418 - accuracy:  
0.9598  
Epoch 1469/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0420 - accuracy:  
0.9598  
Epoch 1470/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0410 - accuracy:  
0.9598  
Epoch 1471/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0418 - accuracy:  
0.9593  
Epoch 1472/100000



2/2 [=====] - 0s 114ms/step - loss: 0.0420 - accuracy: 0.9588  
Epoch 1473/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0417 - accuracy: 0.9598  
Epoch 1474/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0412 - accuracy: 0.9593  
Epoch 1475/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0421 - accuracy: 0.9604  
Epoch 1476/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0414 - accuracy: 0.9590  
Epoch 1477/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0415 - accuracy: 0.9600  
Epoch 1478/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0417 - accuracy: 0.9603  
Epoch 1479/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0420 - accuracy: 0.9600  
Epoch 1480/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0417 - accuracy: 0.9599  
Epoch 1481/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0414 - accuracy: 0.9597  
Epoch 1482/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0424 - accuracy: 0.9601  
Epoch 1483/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0421 - accuracy: 0.9599  
Epoch 1484/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0419 - accuracy: 0.9599  
Epoch 1485/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0427 - accuracy: 0.9588  
Epoch 1486/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0417 - accuracy: 0.9591  
Epoch 1487/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0417 - accuracy: 0.9594  
Epoch 1488/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0413 - accuracy:  
0.9585  
Epoch 1489/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0413 - accuracy:  
0.9593  
Epoch 1490/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0412 - accuracy:  
0.9598  
Epoch 1491/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0417 - accuracy:  
0.9594  
Epoch 1492/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0418 - accuracy:  
0.9597  
Epoch 1493/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0420 - accuracy:  
0.9593  
Epoch 1494/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0418 - accuracy:  
0.9588  
Epoch 1495/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0415 - accuracy:  
0.9593  
Epoch 1496/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0412 - accuracy:  
0.9586  
Epoch 1497/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0413 - accuracy:  
0.9588  
Epoch 1498/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0413 - accuracy:  
0.9588  
Epoch 1499/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0412 - accuracy:  
0.9594  
Epoch 1500/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0412 - accuracy:  
0.9604  
Epoch 1501/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0415 - accuracy:  
0.9600  
Epoch 1502/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0418 - accuracy:  
0.9602  
Epoch 1503/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0415 - accuracy:  
0.9599  
Epoch 1504/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0412 - accuracy:  
 0.9586  
 Epoch 1505/100000  
 2/2 [=====] - 0s 113ms/step - loss: 0.0420 - accuracy:  
 0.9592  
 Epoch 1506/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0421 - accuracy:  
 0.9601  
 Epoch 1507/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0412 - accuracy:  
 0.9597  
 Epoch 1508/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0414 - accuracy:  
 0.9598  
 Epoch 1509/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0414 - accuracy:  
 0.9592  
 Epoch 1510/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0416 - accuracy:  
 0.9597  
 Epoch 1511/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0413 - accuracy:  
 0.9608  
 Epoch 1512/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0412 - accuracy:  
 0.9590  
 Epoch 1513/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0418 - accuracy:  
 0.9604  
 Epoch 1514/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0431 - accuracy:  
 0.9605  
 Epoch 1515/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0419 - accuracy:  
 0.9590  
 Epoch 1516/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0426 - accuracy:  
 0.9599  
 Epoch 1517/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0424 - accuracy:  
 0.9600  
 Epoch 1518/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0413 - accuracy:  
 0.9603  
 Epoch 1519/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0416 - accuracy:  
 0.9591  
 Epoch 1520/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0413 - accuracy: 0.9600  
Epoch 1521/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0411 - accuracy: 0.9598  
Epoch 1522/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0414 - accuracy: 0.9597  
Epoch 1523/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0414 - accuracy: 0.9598  
Epoch 1524/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0411 - accuracy: 0.9589  
Epoch 1525/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0410 - accuracy: 0.9597  
Epoch 1526/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0421 - accuracy: 0.9592  
Epoch 1527/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0413 - accuracy: 0.9591  
Epoch 1528/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0414 - accuracy: 0.9590  
Epoch 1529/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0410 - accuracy: 0.9596  
Epoch 1530/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0423 - accuracy: 0.9601  
Epoch 1531/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0413 - accuracy: 0.9598  
Epoch 1532/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0410 - accuracy: 0.9601  
Epoch 1533/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0421 - accuracy: 0.9597  
Epoch 1534/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0416 - accuracy: 0.9605  
Epoch 1535/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0411 - accuracy: 0.9597  
Epoch 1536/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0416 - accuracy: 0.9604  
 Epoch 1537/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0430 - accuracy: 0.9607  
 Epoch 1538/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0430 - accuracy: 0.9596  
 Epoch 1539/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0417 - accuracy: 0.9600  
 Epoch 1540/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0422 - accuracy: 0.9583  
 Epoch 1541/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0429 - accuracy: 0.9596  
 Epoch 1542/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0421 - accuracy: 0.9595  
 Epoch 1543/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0422 - accuracy: 0.9605  
 Epoch 1544/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0429 - accuracy: 0.9600  
 Epoch 1545/100000  
 2/2 [=====] - 0s 113ms/step - loss: 0.0422 - accuracy: 0.9597  
 Epoch 1546/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0416 - accuracy: 0.9595  
 Epoch 1547/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0416 - accuracy: 0.9600  
 Epoch 1548/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0413 - accuracy: 0.9588  
 Epoch 1549/100000  
 2/2 [=====] - 0s 121ms/step - loss: 0.0415 - accuracy: 0.9600  
 Epoch 1550/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0414 - accuracy: 0.9600  
 Epoch 1551/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0413 - accuracy: 0.9610  
 Epoch 1552/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0413 - accuracy: 0.9602  
Epoch 1553/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0416 - accuracy: 0.9594  
Epoch 1554/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0415 - accuracy: 0.9601  
Epoch 1555/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0416 - accuracy: 0.9599  
Epoch 1556/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0416 - accuracy: 0.9601  
Epoch 1557/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0413 - accuracy: 0.9594  
Epoch 1558/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0416 - accuracy: 0.9597  
Epoch 1559/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0413 - accuracy: 0.9600  
Epoch 1560/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0409 - accuracy: 0.9598  
Epoch 1561/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0410 - accuracy: 0.9601  
Epoch 1562/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0409 - accuracy: 0.9603  
Epoch 1563/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0409 - accuracy: 0.9589  
Epoch 1564/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0406 - accuracy: 0.9592  
Epoch 1565/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0413 - accuracy: 0.9602  
Epoch 1566/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0412 - accuracy: 0.9597  
Epoch 1567/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0409 - accuracy: 0.9584  
Epoch 1568/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0432 - accuracy:  
0.9591  
Epoch 1569/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0412 - accuracy:  
0.9586  
Epoch 1570/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0419 - accuracy:  
0.9593  
Epoch 1571/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0418 - accuracy:  
0.9595  
Epoch 1572/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0421 - accuracy:  
0.9598  
Epoch 1573/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0414 - accuracy:  
0.9602  
Epoch 1574/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0414 - accuracy:  
0.9592  
Epoch 1575/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0418 - accuracy:  
0.9590  
Epoch 1576/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0411 - accuracy:  
0.9600  
Epoch 1577/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0417 - accuracy:  
0.9596  
Epoch 1578/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0420 - accuracy:  
0.9604  
Epoch 1579/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0416 - accuracy:  
0.9602  
Epoch 1580/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0410 - accuracy:  
0.9595  
Epoch 1581/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0422 - accuracy:  
0.9596  
Epoch 1582/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0409 - accuracy:  
0.9593  
Epoch 1583/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0419 - accuracy:  
0.9596  
Epoch 1584/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0416 - accuracy:  
0.9600  
Epoch 1585/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0415 - accuracy:  
0.9599  
Epoch 1586/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0416 - accuracy:  
0.9599  
Epoch 1587/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0420 - accuracy:  
0.9607  
Epoch 1588/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0415 - accuracy:  
0.9596  
Epoch 1589/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0430 - accuracy:  
0.9606  
Epoch 1590/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0422 - accuracy:  
0.9595  
Epoch 1591/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0419 - accuracy:  
0.9602  
Epoch 1592/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0427 - accuracy:  
0.9593  
Epoch 1593/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0423 - accuracy:  
0.9611  
Epoch 1594/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0417 - accuracy:  
0.9603  
Epoch 1595/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0428 - accuracy:  
0.9597  
Epoch 1596/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0421 - accuracy:  
0.9598  
Epoch 1597/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0410 - accuracy:  
0.9588  
Epoch 1598/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0419 - accuracy:  
0.9595  
Epoch 1599/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0413 - accuracy:  
0.9597  
Epoch 1600/100000



2/2 [=====] - 0s 113ms/step - loss: 0.0414 - accuracy: 0.9587  
Epoch 1601/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0417 - accuracy: 0.9596  
Epoch 1602/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0415 - accuracy: 0.9588  
Epoch 1603/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0418 - accuracy: 0.9595  
Epoch 1604/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0411 - accuracy: 0.9602  
Epoch 1605/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0410 - accuracy: 0.9593  
Epoch 1606/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0412 - accuracy: 0.9604  
Epoch 1607/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0418 - accuracy: 0.9594  
Epoch 1608/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0420 - accuracy: 0.9589  
Epoch 1609/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0412 - accuracy: 0.9598  
Epoch 1610/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0413 - accuracy: 0.9590  
Epoch 1611/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0422 - accuracy: 0.9600  
Epoch 1612/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0419 - accuracy: 0.9602  
Epoch 1613/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0414 - accuracy: 0.9607  
Epoch 1614/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0411 - accuracy: 0.9598  
Epoch 1615/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0409 - accuracy: 0.9589  
Epoch 1616/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0408 - accuracy:  
0.9607  
Epoch 1617/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0413 - accuracy:  
0.9599  
Epoch 1618/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0410 - accuracy:  
0.9601  
Epoch 1619/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0410 - accuracy:  
0.9600  
Epoch 1620/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0410 - accuracy:  
0.9608  
Epoch 1621/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0408 - accuracy:  
0.9603  
Epoch 1622/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0418 - accuracy:  
0.9607  
Epoch 1623/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0408 - accuracy:  
0.9593  
Epoch 1624/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0401 - accuracy:  
0.9586  
Epoch 1625/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0408 - accuracy:  
0.9588  
Epoch 1626/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0412 - accuracy:  
0.9593  
Epoch 1627/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0410 - accuracy:  
0.9607  
Epoch 1628/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0415 - accuracy:  
0.9598  
Epoch 1629/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0423 - accuracy:  
0.9592  
Epoch 1630/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0416 - accuracy:  
0.9606  
Epoch 1631/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0437 - accuracy:  
0.9598  
Epoch 1632/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0432 - accuracy:  
0.9606  
Epoch 1633/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0432 - accuracy:  
0.9593  
Epoch 1634/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0442 - accuracy:  
0.9595  
Epoch 1635/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0424 - accuracy:  
0.9601  
Epoch 1636/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0414 - accuracy:  
0.9595  
Epoch 1637/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0418 - accuracy:  
0.9603  
Epoch 1638/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0422 - accuracy:  
0.9599  
Epoch 1639/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0423 - accuracy:  
0.9583  
Epoch 1640/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0415 - accuracy:  
0.9596  
Epoch 1641/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0417 - accuracy:  
0.9606  
Epoch 1642/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0416 - accuracy:  
0.9601  
Epoch 1643/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0413 - accuracy:  
0.9608  
Epoch 1644/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0409 - accuracy:  
0.9593  
Epoch 1645/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0405 - accuracy:  
0.9600  
Epoch 1646/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0408 - accuracy:  
0.9604  
Epoch 1647/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0416 - accuracy:  
0.9591  
Epoch 1648/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0414 - accuracy: 0.9595  
Epoch 1649/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0418 - accuracy: 0.9609  
Epoch 1650/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0410 - accuracy: 0.9589  
Epoch 1651/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0410 - accuracy: 0.9604  
Epoch 1652/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0420 - accuracy: 0.9607  
Epoch 1653/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0413 - accuracy: 0.9592  
Epoch 1654/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0405 - accuracy: 0.9594  
Epoch 1655/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0414 - accuracy: 0.9600  
Epoch 1656/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0411 - accuracy: 0.9592  
Epoch 1657/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0417 - accuracy: 0.9606  
Epoch 1658/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0405 - accuracy: 0.9598  
Epoch 1659/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0410 - accuracy: 0.9594  
Epoch 1660/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0408 - accuracy: 0.9596  
Epoch 1661/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0405 - accuracy: 0.9595  
Epoch 1662/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0407 - accuracy: 0.9589  
Epoch 1663/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0408 - accuracy: 0.9599  
Epoch 1664/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0409 - accuracy:  
0.9590  
Epoch 1665/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0412 - accuracy:  
0.9599  
Epoch 1666/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0407 - accuracy:  
0.9592  
Epoch 1667/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0407 - accuracy:  
0.9601  
Epoch 1668/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0411 - accuracy:  
0.9598  
Epoch 1669/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0409 - accuracy:  
0.9610  
Epoch 1670/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0404 - accuracy:  
0.9597  
Epoch 1671/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0408 - accuracy:  
0.9597  
Epoch 1672/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0405 - accuracy:  
0.9590  
Epoch 1673/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0408 - accuracy:  
0.9596  
Epoch 1674/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0401 - accuracy:  
0.9594  
Epoch 1675/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0405 - accuracy:  
0.9594  
Epoch 1676/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0405 - accuracy:  
0.9593  
Epoch 1677/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0405 - accuracy:  
0.9601  
Epoch 1678/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0411 - accuracy:  
0.9599  
Epoch 1679/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0406 - accuracy:  
0.9600  
Epoch 1680/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0402 - accuracy:  
0.9589  
Epoch 1681/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0405 - accuracy:  
0.9594  
Epoch 1682/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0403 - accuracy:  
0.9599  
Epoch 1683/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0402 - accuracy:  
0.9593  
Epoch 1684/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0411 - accuracy:  
0.9603  
Epoch 1685/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0405 - accuracy:  
0.9594  
Epoch 1686/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0404 - accuracy:  
0.9584  
Epoch 1687/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0410 - accuracy:  
0.9602  
Epoch 1688/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0412 - accuracy:  
0.9599  
Epoch 1689/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0405 - accuracy:  
0.9593  
Epoch 1690/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0407 - accuracy:  
0.9593  
Epoch 1691/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0412 - accuracy:  
0.9596  
Epoch 1692/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0414 - accuracy:  
0.9596  
Epoch 1693/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0408 - accuracy:  
0.9599  
Epoch 1694/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0404 - accuracy:  
0.9600  
Epoch 1695/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0403 - accuracy:  
0.9595  
Epoch 1696/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0409 - accuracy:  
0.9605  
Epoch 1697/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0406 - accuracy:  
0.9595  
Epoch 1698/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0406 - accuracy:  
0.9594  
Epoch 1699/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0399 - accuracy:  
0.9596  
Epoch 1700/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0408 - accuracy:  
0.9598  
Epoch 1701/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0405 - accuracy:  
0.9594  
Epoch 1702/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0412 - accuracy:  
0.9596  
Epoch 1703/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0406 - accuracy:  
0.9595  
Epoch 1704/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0405 - accuracy:  
0.9601  
Epoch 1705/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0411 - accuracy:  
0.9597  
Epoch 1706/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0407 - accuracy:  
0.9598  
Epoch 1707/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0403 - accuracy:  
0.9594  
Epoch 1708/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0406 - accuracy:  
0.9594  
Epoch 1709/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0404 - accuracy:  
0.9610  
Epoch 1710/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0414 - accuracy:  
0.9613  
Epoch 1711/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0401 - accuracy:  
0.9600  
Epoch 1712/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0401 - accuracy: 0.9601  
 Epoch 1713/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0403 - accuracy: 0.9595  
 Epoch 1714/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0405 - accuracy: 0.9600  
 Epoch 1715/100000  
 2/2 [=====] - 0s 113ms/step - loss: 0.0404 - accuracy: 0.9598  
 Epoch 1716/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0398 - accuracy: 0.9599  
 Epoch 1717/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0411 - accuracy: 0.9598  
 Epoch 1718/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0409 - accuracy: 0.9608  
 Epoch 1719/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0406 - accuracy: 0.9589  
 Epoch 1720/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0413 - accuracy: 0.9592  
 Epoch 1721/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0408 - accuracy: 0.9597  
 Epoch 1722/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0408 - accuracy: 0.9598  
 Epoch 1723/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0409 - accuracy: 0.9590  
 Epoch 1724/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0401 - accuracy: 0.9595  
 Epoch 1725/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0409 - accuracy: 0.9592  
 Epoch 1726/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0406 - accuracy: 0.9607  
 Epoch 1727/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0408 - accuracy: 0.9592  
 Epoch 1728/100000



2/2 [=====] - 0s 113ms/step - loss: 0.0401 - accuracy:  
0.9597  
Epoch 1729/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0412 - accuracy:  
0.9593  
Epoch 1730/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0403 - accuracy:  
0.9599  
Epoch 1731/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0403 - accuracy:  
0.9591  
Epoch 1732/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0410 - accuracy:  
0.9605  
Epoch 1733/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0404 - accuracy:  
0.9597  
Epoch 1734/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0406 - accuracy:  
0.9598  
Epoch 1735/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0403 - accuracy:  
0.9606  
Epoch 1736/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0407 - accuracy:  
0.9606  
Epoch 1737/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0403 - accuracy:  
0.9592  
Epoch 1738/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0405 - accuracy:  
0.9602  
Epoch 1739/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0404 - accuracy:  
0.9601  
Epoch 1740/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0402 - accuracy:  
0.9593  
Epoch 1741/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0408 - accuracy:  
0.9600  
Epoch 1742/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0402 - accuracy:  
0.9603  
Epoch 1743/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0404 - accuracy:  
0.9596  
Epoch 1744/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0409 - accuracy:  
0.9604  
Epoch 1745/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0407 - accuracy:  
0.9596  
Epoch 1746/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0401 - accuracy:  
0.9591  
Epoch 1747/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0403 - accuracy:  
0.9589  
Epoch 1748/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0401 - accuracy:  
0.9593  
Epoch 1749/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0405 - accuracy:  
0.9596  
Epoch 1750/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0402 - accuracy:  
0.9594  
Epoch 1751/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0403 - accuracy:  
0.9593  
Epoch 1752/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0403 - accuracy:  
0.9596  
Epoch 1753/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0404 - accuracy:  
0.9601  
Epoch 1754/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0411 - accuracy:  
0.9602  
Epoch 1755/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0403 - accuracy:  
0.9590  
Epoch 1756/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0403 - accuracy:  
0.9594  
Epoch 1757/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0403 - accuracy:  
0.9598  
Epoch 1758/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0414 - accuracy:  
0.9598  
Epoch 1759/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0404 - accuracy:  
0.9601  
Epoch 1760/100000

2/2 [=====] - 0s 113ms/step - loss: 0.0404 - accuracy:  
 0.9592  
 Epoch 1761/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0409 - accuracy:  
 0.9594  
 Epoch 1762/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0406 - accuracy:  
 0.9599  
 Epoch 1763/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0404 - accuracy:  
 0.9588  
 Epoch 1764/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0420 - accuracy:  
 0.9597  
 Epoch 1765/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0405 - accuracy:  
 0.9586  
 Epoch 1766/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0414 - accuracy:  
 0.9604  
 Epoch 1767/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0404 - accuracy:  
 0.9598  
 Epoch 1768/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0408 - accuracy:  
 0.9589  
 Epoch 1769/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0405 - accuracy:  
 0.9593  
 Epoch 1770/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0405 - accuracy:  
 0.9591  
 Epoch 1771/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0403 - accuracy:  
 0.9601  
 Epoch 1772/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0401 - accuracy:  
 0.9596  
 Epoch 1773/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0404 - accuracy:  
 0.9596  
 Epoch 1774/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0402 - accuracy:  
 0.9598  
 Epoch 1775/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0399 - accuracy:  
 0.9598  
 Epoch 1776/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0401 - accuracy: 0.9601  
 Epoch 1777/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0402 - accuracy: 0.9604  
 Epoch 1778/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0401 - accuracy: 0.9600  
 Epoch 1779/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0402 - accuracy: 0.9604  
 Epoch 1780/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0401 - accuracy: 0.9602  
 Epoch 1781/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0403 - accuracy: 0.9600  
 Epoch 1782/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0402 - accuracy: 0.9597  
 Epoch 1783/100000  
 2/2 [=====] - 0s 113ms/step - loss: 0.0398 - accuracy: 0.9600  
 Epoch 1784/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0398 - accuracy: 0.9600  
 Epoch 1785/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0401 - accuracy: 0.9598  
 Epoch 1786/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0393 - accuracy: 0.9587  
 Epoch 1787/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0396 - accuracy: 0.9598  
 Epoch 1788/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0396 - accuracy: 0.9595  
 Epoch 1789/100000  
 2/2 [=====] - 0s 113ms/step - loss: 0.0400 - accuracy: 0.9591  
 Epoch 1790/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0403 - accuracy: 0.9597  
 Epoch 1791/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0403 - accuracy: 0.9590  
 Epoch 1792/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0408 - accuracy:  
0.9604  
Epoch 1793/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0415 - accuracy:  
0.9594  
Epoch 1794/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0416 - accuracy:  
0.9597  
Epoch 1795/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0415 - accuracy:  
0.9603  
Epoch 1796/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0427 - accuracy:  
0.9603  
Epoch 1797/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0431 - accuracy:  
0.9589  
Epoch 1798/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0424 - accuracy:  
0.9597  
Epoch 1799/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0415 - accuracy:  
0.9590  
Epoch 1800/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0407 - accuracy:  
0.9588  
Epoch 1801/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0412 - accuracy:  
0.9598  
Epoch 1802/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0409 - accuracy:  
0.9597  
Epoch 1803/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0406 - accuracy:  
0.9597  
Epoch 1804/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0405 - accuracy:  
0.9603  
Epoch 1805/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0400 - accuracy:  
0.9591  
Epoch 1806/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0398 - accuracy:  
0.9594  
Epoch 1807/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0404 - accuracy:  
0.9592  
Epoch 1808/100000

2/2 [=====] - 0s 113ms/step - loss: 0.0403 - accuracy:  
0.9595  
Epoch 1809/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0400 - accuracy:  
0.9591  
Epoch 1810/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0396 - accuracy:  
0.9590  
Epoch 1811/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0399 - accuracy:  
0.9591  
Epoch 1812/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0401 - accuracy:  
0.9596  
Epoch 1813/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0400 - accuracy:  
0.9593  
Epoch 1814/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0398 - accuracy:  
0.9595  
Epoch 1815/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0405 - accuracy:  
0.9603  
Epoch 1816/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0407 - accuracy:  
0.9594  
Epoch 1817/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0401 - accuracy:  
0.9594  
Epoch 1818/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0403 - accuracy:  
0.9592  
Epoch 1819/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0402 - accuracy:  
0.9592  
Epoch 1820/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0403 - accuracy:  
0.9598  
Epoch 1821/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0399 - accuracy:  
0.9584  
Epoch 1822/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0411 - accuracy:  
0.9600  
Epoch 1823/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0413 - accuracy:  
0.9601  
Epoch 1824/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0416 - accuracy:  
0.9604  
Epoch 1825/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0434 - accuracy:  
0.9601  
Epoch 1826/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0417 - accuracy:  
0.9603  
Epoch 1827/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0405 - accuracy:  
0.9594  
Epoch 1828/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0403 - accuracy:  
0.9595  
Epoch 1829/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0407 - accuracy:  
0.9604  
Epoch 1830/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0399 - accuracy:  
0.9605  
Epoch 1831/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0406 - accuracy:  
0.9606  
Epoch 1832/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0398 - accuracy:  
0.9598  
Epoch 1833/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0399 - accuracy:  
0.9604  
Epoch 1834/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0407 - accuracy:  
0.9599  
Epoch 1835/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0415 - accuracy:  
0.9604  
Epoch 1836/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0410 - accuracy:  
0.9599  
Epoch 1837/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0410 - accuracy:  
0.9604  
Epoch 1838/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0404 - accuracy:  
0.9595  
Epoch 1839/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0402 - accuracy:  
0.9598  
Epoch 1840/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0403 - accuracy:  
 0.9594  
 Epoch 1841/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0403 - accuracy:  
 0.9597  
 Epoch 1842/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0400 - accuracy:  
 0.9595  
 Epoch 1843/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0401 - accuracy:  
 0.9598  
 Epoch 1844/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0399 - accuracy:  
 0.9593  
 Epoch 1845/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0398 - accuracy:  
 0.9593  
 Epoch 1846/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0399 - accuracy:  
 0.9602  
 Epoch 1847/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0395 - accuracy:  
 0.9600  
 Epoch 1848/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0397 - accuracy:  
 0.9596  
 Epoch 1849/100000  
 2/2 [=====] - 0s 113ms/step - loss: 0.0402 - accuracy:  
 0.9604  
 Epoch 1850/100000  
 2/2 [=====] - 0s 113ms/step - loss: 0.0408 - accuracy:  
 0.9606  
 Epoch 1851/100000  
 2/2 [=====] - 0s 113ms/step - loss: 0.0411 - accuracy:  
 0.9600  
 Epoch 1852/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0410 - accuracy:  
 0.9591  
 Epoch 1853/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0407 - accuracy:  
 0.9596  
 Epoch 1854/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0406 - accuracy:  
 0.9595  
 Epoch 1855/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0399 - accuracy:  
 0.9594  
 Epoch 1856/100000



2/2 [=====] - 0s 114ms/step - loss: 0.0404 - accuracy:  
 0.9595  
 Epoch 1857/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0397 - accuracy:  
 0.9595  
 Epoch 1858/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0396 - accuracy:  
 0.9599  
 Epoch 1859/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0399 - accuracy:  
 0.9599  
 Epoch 1860/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0399 - accuracy:  
 0.9596  
 Epoch 1861/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0394 - accuracy:  
 0.9597  
 Epoch 1862/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0395 - accuracy:  
 0.9597  
 Epoch 1863/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0395 - accuracy:  
 0.9595  
 Epoch 1864/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0398 - accuracy:  
 0.9599  
 Epoch 1865/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0397 - accuracy:  
 0.9592  
 Epoch 1866/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0394 - accuracy:  
 0.9598  
 Epoch 1867/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0402 - accuracy:  
 0.9594  
 Epoch 1868/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0399 - accuracy:  
 0.9587  
 Epoch 1869/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0402 - accuracy:  
 0.9596  
 Epoch 1870/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0397 - accuracy:  
 0.9596  
 Epoch 1871/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0400 - accuracy:  
 0.9597  
 Epoch 1872/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0401 - accuracy: 0.9598  
Epoch 1873/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0399 - accuracy: 0.9590  
Epoch 1874/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0398 - accuracy: 0.9593  
Epoch 1875/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0416 - accuracy: 0.9591  
Epoch 1876/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0417 - accuracy: 0.9594  
Epoch 1877/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0410 - accuracy: 0.9592  
Epoch 1878/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0413 - accuracy: 0.9606  
Epoch 1879/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0411 - accuracy: 0.9591  
Epoch 1880/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0407 - accuracy: 0.9591  
Epoch 1881/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0421 - accuracy: 0.9600  
Epoch 1882/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0411 - accuracy: 0.9591  
Epoch 1883/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0402 - accuracy: 0.9597  
Epoch 1884/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0409 - accuracy: 0.9604  
Epoch 1885/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0411 - accuracy: 0.9596  
Epoch 1886/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0411 - accuracy: 0.9603  
Epoch 1887/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0410 - accuracy: 0.9598  
Epoch 1888/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0398 - accuracy: 0.9601  
 Epoch 1889/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0396 - accuracy: 0.9589  
 Epoch 1890/100000  
 2/2 [=====] - 0s 113ms/step - loss: 0.0401 - accuracy: 0.9602  
 Epoch 1891/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0396 - accuracy: 0.9594  
 Epoch 1892/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0396 - accuracy: 0.9603  
 Epoch 1893/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0394 - accuracy: 0.9602  
 Epoch 1894/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0397 - accuracy: 0.9594  
 Epoch 1895/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0398 - accuracy: 0.9600  
 Epoch 1896/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0395 - accuracy: 0.9599  
 Epoch 1897/100000  
 2/2 [=====] - 0s 113ms/step - loss: 0.0401 - accuracy: 0.9598  
 Epoch 1898/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0404 - accuracy: 0.9589  
 Epoch 1899/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0397 - accuracy: 0.9604  
 Epoch 1900/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0397 - accuracy: 0.9599  
 Epoch 1901/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0403 - accuracy: 0.9601  
 Epoch 1902/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0400 - accuracy: 0.9604  
 Epoch 1903/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0403 - accuracy: 0.9600  
 Epoch 1904/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0407 - accuracy: 0.9594  
Epoch 1905/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0400 - accuracy: 0.9599  
Epoch 1906/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0393 - accuracy: 0.9599  
Epoch 1907/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0403 - accuracy: 0.9598  
Epoch 1908/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0400 - accuracy: 0.9591  
Epoch 1909/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0393 - accuracy: 0.9593  
Epoch 1910/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0400 - accuracy: 0.9600  
Epoch 1911/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0401 - accuracy: 0.9591  
Epoch 1912/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0403 - accuracy: 0.9597  
Epoch 1913/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0408 - accuracy: 0.9602  
Epoch 1914/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0412 - accuracy: 0.9596  
Epoch 1915/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0418 - accuracy: 0.9601  
Epoch 1916/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0413 - accuracy: 0.9601  
Epoch 1917/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0408 - accuracy: 0.9594  
Epoch 1918/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0402 - accuracy: 0.9592  
Epoch 1919/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0400 - accuracy: 0.9595  
Epoch 1920/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0402 - accuracy:  
0.9605  
Epoch 1921/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0399 - accuracy:  
0.9607  
Epoch 1922/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0395 - accuracy:  
0.9598  
Epoch 1923/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0395 - accuracy:  
0.9596  
Epoch 1924/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0398 - accuracy:  
0.9594  
Epoch 1925/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0397 - accuracy:  
0.9589  
Epoch 1926/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0397 - accuracy:  
0.9593  
Epoch 1927/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0397 - accuracy:  
0.9590  
Epoch 1928/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0400 - accuracy:  
0.9596  
Epoch 1929/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0400 - accuracy:  
0.9588  
Epoch 1930/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0411 - accuracy:  
0.9587  
Epoch 1931/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0398 - accuracy:  
0.9607  
Epoch 1932/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0403 - accuracy:  
0.9594  
Epoch 1933/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0400 - accuracy:  
0.9597  
Epoch 1934/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0400 - accuracy:  
0.9602  
Epoch 1935/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0402 - accuracy:  
0.9597  
Epoch 1936/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0399 - accuracy:  
0.9589  
Epoch 1937/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0399 - accuracy:  
0.9600  
Epoch 1938/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0396 - accuracy:  
0.9578  
Epoch 1939/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0412 - accuracy:  
0.9590  
Epoch 1940/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0407 - accuracy:  
0.9600  
Epoch 1941/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0410 - accuracy:  
0.9594  
Epoch 1942/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0407 - accuracy:  
0.9592  
Epoch 1943/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0400 - accuracy:  
0.9597  
Epoch 1944/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0406 - accuracy:  
0.9589  
Epoch 1945/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0401 - accuracy:  
0.9593  
Epoch 1946/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0399 - accuracy:  
0.9593  
Epoch 1947/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0403 - accuracy:  
0.9591  
Epoch 1948/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0395 - accuracy:  
0.9589  
Epoch 1949/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0395 - accuracy:  
0.9597  
Epoch 1950/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0393 - accuracy:  
0.9590  
Epoch 1951/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0404 - accuracy:  
0.9603  
Epoch 1952/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0397 - accuracy: 0.9601  
Epoch 1953/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0403 - accuracy: 0.9596  
Epoch 1954/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0392 - accuracy: 0.9598  
Epoch 1955/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0399 - accuracy: 0.9593  
Epoch 1956/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0396 - accuracy: 0.9592  
Epoch 1957/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0401 - accuracy: 0.9596  
Epoch 1958/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0394 - accuracy: 0.9589  
Epoch 1959/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0394 - accuracy: 0.9584  
Epoch 1960/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0408 - accuracy: 0.9596  
Epoch 1961/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0394 - accuracy: 0.9597  
Epoch 1962/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0395 - accuracy: 0.9585  
Epoch 1963/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0411 - accuracy: 0.9588  
Epoch 1964/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0397 - accuracy: 0.9600  
Epoch 1965/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0398 - accuracy: 0.9598  
Epoch 1966/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0403 - accuracy: 0.9594  
Epoch 1967/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0398 - accuracy: 0.9599  
Epoch 1968/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0397 - accuracy:  
0.9595  
Epoch 1969/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0396 - accuracy:  
0.9587  
Epoch 1970/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0397 - accuracy:  
0.9598  
Epoch 1971/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0396 - accuracy:  
0.9599  
Epoch 1972/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0404 - accuracy:  
0.9592  
Epoch 1973/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0397 - accuracy:  
0.9608  
Epoch 1974/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0394 - accuracy:  
0.9601  
Epoch 1975/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0396 - accuracy:  
0.9593  
Epoch 1976/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0397 - accuracy:  
0.9602  
Epoch 1977/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0399 - accuracy:  
0.9606  
Epoch 1978/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0398 - accuracy:  
0.9600  
Epoch 1979/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0397 - accuracy:  
0.9597  
Epoch 1980/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0401 - accuracy:  
0.9594  
Epoch 1981/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0398 - accuracy:  
0.9589  
Epoch 1982/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0393 - accuracy:  
0.9589  
Epoch 1983/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0397 - accuracy:  
0.9589  
Epoch 1984/100000



2/2 [=====] - 0s 114ms/step - loss: 0.0391 - accuracy: 0.9593  
Epoch 1985/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0391 - accuracy: 0.9601  
Epoch 1986/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0392 - accuracy: 0.9603  
Epoch 1987/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0394 - accuracy: 0.9595  
Epoch 1988/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0394 - accuracy: 0.9602  
Epoch 1989/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0391 - accuracy: 0.9595  
Epoch 1990/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0391 - accuracy: 0.9592  
Epoch 1991/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0398 - accuracy: 0.9610  
Epoch 1992/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0393 - accuracy: 0.9603  
Epoch 1993/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0397 - accuracy: 0.9597  
Epoch 1994/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0398 - accuracy: 0.9606  
Epoch 1995/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0394 - accuracy: 0.9598  
Epoch 1996/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0394 - accuracy: 0.9593  
Epoch 1997/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0394 - accuracy: 0.9605  
Epoch 1998/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0408 - accuracy: 0.9597  
Epoch 1999/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0409 - accuracy: 0.9595  
Epoch 2000/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0403 - accuracy: 0.9611  
Epoch 2001/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0404 - accuracy: 0.9592  
Epoch 2002/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0416 - accuracy: 0.9604  
Epoch 2003/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0399 - accuracy: 0.9595  
Epoch 2004/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0409 - accuracy: 0.9603  
Epoch 2005/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0396 - accuracy: 0.9587  
Epoch 2006/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0394 - accuracy: 0.9598  
Epoch 2007/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0392 - accuracy: 0.9588  
Epoch 2008/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0396 - accuracy: 0.9595  
Epoch 2009/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0392 - accuracy: 0.9593  
Epoch 2010/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0395 - accuracy: 0.9604  
Epoch 2011/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0396 - accuracy: 0.9598  
Epoch 2012/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0397 - accuracy: 0.9595  
Epoch 2013/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0400 - accuracy: 0.9596  
Epoch 2014/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0397 - accuracy: 0.9604  
Epoch 2015/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0410 - accuracy: 0.9604  
Epoch 2016/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0415 - accuracy:  
0.9591  
Epoch 2017/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0405 - accuracy:  
0.9594  
Epoch 2018/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0399 - accuracy:  
0.9594  
Epoch 2019/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0399 - accuracy:  
0.9589  
Epoch 2020/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0394 - accuracy:  
0.9592  
Epoch 2021/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0402 - accuracy:  
0.9592  
Epoch 2022/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0395 - accuracy:  
0.9594  
Epoch 2023/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0397 - accuracy:  
0.9591  
Epoch 2024/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0395 - accuracy:  
0.9600  
Epoch 2025/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0396 - accuracy:  
0.9597  
Epoch 2026/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0403 - accuracy:  
0.9594  
Epoch 2027/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0397 - accuracy:  
0.9600  
Epoch 2028/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0405 - accuracy:  
0.9598  
Epoch 2029/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0410 - accuracy:  
0.9586  
Epoch 2030/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0406 - accuracy:  
0.9595  
Epoch 2031/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0398 - accuracy:  
0.9595  
Epoch 2032/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0401 - accuracy:  
0.9601  
Epoch 2033/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0399 - accuracy:  
0.9597  
Epoch 2034/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0405 - accuracy:  
0.9602  
Epoch 2035/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0407 - accuracy:  
0.9593  
Epoch 2036/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0400 - accuracy:  
0.9596  
Epoch 2037/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0393 - accuracy:  
0.9600  
Epoch 2038/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0397 - accuracy:  
0.9606  
Epoch 2039/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0397 - accuracy:  
0.9602  
Epoch 2040/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0394 - accuracy:  
0.9599  
Epoch 2041/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0388 - accuracy:  
0.9590  
Epoch 2042/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0394 - accuracy:  
0.9598  
Epoch 2043/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0389 - accuracy:  
0.9596  
Epoch 2044/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0395 - accuracy:  
0.9599  
Epoch 2045/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0395 - accuracy:  
0.9595  
Epoch 2046/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0391 - accuracy:  
0.9600  
Epoch 2047/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0393 - accuracy:  
0.9605  
Epoch 2048/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0391 - accuracy:  
0.9583  
Epoch 2049/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0396 - accuracy:  
0.9595  
Epoch 2050/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0392 - accuracy:  
0.9594  
Epoch 2051/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0390 - accuracy:  
0.9594  
Epoch 2052/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0393 - accuracy:  
0.9603  
Epoch 2053/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0390 - accuracy:  
0.9594  
Epoch 2054/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0400 - accuracy:  
0.9598  
Epoch 2055/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0398 - accuracy:  
0.9597  
Epoch 2056/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0397 - accuracy:  
0.9594  
Epoch 2057/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0395 - accuracy:  
0.9594  
Epoch 2058/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0392 - accuracy:  
0.9588  
Epoch 2059/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0392 - accuracy:  
0.9602  
Epoch 2060/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0401 - accuracy:  
0.9603  
Epoch 2061/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0397 - accuracy:  
0.9589  
Epoch 2062/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0395 - accuracy:  
0.9588  
Epoch 2063/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0391 - accuracy:  
0.9597  
Epoch 2064/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0397 - accuracy: 0.9596  
 Epoch 2065/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0394 - accuracy: 0.9597  
 Epoch 2066/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0391 - accuracy: 0.9599  
 Epoch 2067/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0391 - accuracy: 0.9603  
 Epoch 2068/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0392 - accuracy: 0.9591  
 Epoch 2069/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0397 - accuracy: 0.9602  
 Epoch 2070/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0395 - accuracy: 0.9605  
 Epoch 2071/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0401 - accuracy: 0.9604  
 Epoch 2072/100000  
 2/2 [=====] - 0s 113ms/step - loss: 0.0400 - accuracy: 0.9603  
 Epoch 2073/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0403 - accuracy: 0.9602  
 Epoch 2074/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0414 - accuracy: 0.9602  
 Epoch 2075/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0417 - accuracy: 0.9596  
 Epoch 2076/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0394 - accuracy: 0.9591  
 Epoch 2077/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0394 - accuracy: 0.9584  
 Epoch 2078/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0407 - accuracy: 0.9600  
 Epoch 2079/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0406 - accuracy: 0.9588  
 Epoch 2080/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0401 - accuracy:  
0.9600  
Epoch 2081/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0396 - accuracy:  
0.9596  
Epoch 2082/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0397 - accuracy:  
0.9591  
Epoch 2083/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0399 - accuracy:  
0.9597  
Epoch 2084/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0402 - accuracy:  
0.9604  
Epoch 2085/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0399 - accuracy:  
0.9592  
Epoch 2086/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0392 - accuracy:  
0.9588  
Epoch 2087/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0396 - accuracy:  
0.9605  
Epoch 2088/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0394 - accuracy:  
0.9600  
Epoch 2089/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0395 - accuracy:  
0.9594  
Epoch 2090/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0394 - accuracy:  
0.9596  
Epoch 2091/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0398 - accuracy:  
0.9596  
Epoch 2092/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0395 - accuracy:  
0.9593  
Epoch 2093/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0394 - accuracy:  
0.9591  
Epoch 2094/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0394 - accuracy:  
0.9607  
Epoch 2095/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0398 - accuracy:  
0.9602  
Epoch 2096/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0399 - accuracy: 0.9590  
Epoch 2097/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0392 - accuracy: 0.9594  
Epoch 2098/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0392 - accuracy: 0.9606  
Epoch 2099/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0392 - accuracy: 0.9601  
Epoch 2100/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0389 - accuracy: 0.9602  
Epoch 2101/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0394 - accuracy: 0.9599  
Epoch 2102/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0394 - accuracy: 0.9596  
Epoch 2103/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0389 - accuracy: 0.9588  
Epoch 2104/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0396 - accuracy: 0.9596  
Epoch 2105/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0396 - accuracy: 0.9599  
Epoch 2106/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0388 - accuracy: 0.9606  
Epoch 2107/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0395 - accuracy: 0.9595  
Epoch 2108/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0394 - accuracy: 0.9608  
Epoch 2109/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0391 - accuracy: 0.9605  
Epoch 2110/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0392 - accuracy: 0.9601  
Epoch 2111/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0390 - accuracy: 0.9588  
Epoch 2112/100000



2/2 [=====] - 0s 114ms/step - loss: 0.0389 - accuracy: 0.9586  
 Epoch 2113/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0389 - accuracy: 0.9599  
 Epoch 2114/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0397 - accuracy: 0.9603  
 Epoch 2115/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0400 - accuracy: 0.9603  
 Epoch 2116/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0401 - accuracy: 0.9592  
 Epoch 2117/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0395 - accuracy: 0.9602  
 Epoch 2118/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0398 - accuracy: 0.9590  
 Epoch 2119/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0408 - accuracy: 0.9589  
 Epoch 2120/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0405 - accuracy: 0.9600  
 Epoch 2121/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0394 - accuracy: 0.9604  
 Epoch 2122/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0395 - accuracy: 0.9597  
 Epoch 2123/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0393 - accuracy: 0.9604  
 Epoch 2124/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0389 - accuracy: 0.9599  
 Epoch 2125/100000  
 2/2 [=====] - 0s 113ms/step - loss: 0.0390 - accuracy: 0.9608  
 Epoch 2126/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0393 - accuracy: 0.9599  
 Epoch 2127/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0391 - accuracy: 0.9601  
 Epoch 2128/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0390 - accuracy:  
0.9598  
Epoch 2129/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0393 - accuracy:  
0.9600  
Epoch 2130/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0391 - accuracy:  
0.9605  
Epoch 2131/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0392 - accuracy:  
0.9593  
Epoch 2132/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0395 - accuracy:  
0.9588  
Epoch 2133/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0385 - accuracy:  
0.9589  
Epoch 2134/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0392 - accuracy:  
0.9590  
Epoch 2135/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0393 - accuracy:  
0.9594  
Epoch 2136/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0390 - accuracy:  
0.9601  
Epoch 2137/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0388 - accuracy:  
0.9597  
Epoch 2138/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0394 - accuracy:  
0.9599  
Epoch 2139/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0393 - accuracy:  
0.9595  
Epoch 2140/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0403 - accuracy:  
0.9590  
Epoch 2141/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0391 - accuracy:  
0.9596  
Epoch 2142/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0397 - accuracy:  
0.9601  
Epoch 2143/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0405 - accuracy:  
0.9593  
Epoch 2144/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0390 - accuracy: 0.9583  
Epoch 2145/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0397 - accuracy: 0.9599  
Epoch 2146/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0391 - accuracy: 0.9589  
Epoch 2147/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0393 - accuracy: 0.9595  
Epoch 2148/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0395 - accuracy: 0.9594  
Epoch 2149/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0398 - accuracy: 0.9596  
Epoch 2150/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0393 - accuracy: 0.9603  
Epoch 2151/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0393 - accuracy: 0.9583  
Epoch 2152/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0392 - accuracy: 0.9592  
Epoch 2153/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0395 - accuracy: 0.9589  
Epoch 2154/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0402 - accuracy: 0.9601  
Epoch 2155/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0392 - accuracy: 0.9596  
Epoch 2156/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0394 - accuracy: 0.9595  
Epoch 2157/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0389 - accuracy: 0.9596  
Epoch 2158/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0392 - accuracy: 0.9594  
Epoch 2159/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0388 - accuracy: 0.9596  
Epoch 2160/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0391 - accuracy: 0.9593  
Epoch 2161/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0391 - accuracy: 0.9592  
Epoch 2162/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0387 - accuracy: 0.9587  
Epoch 2163/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0393 - accuracy: 0.9603  
Epoch 2164/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0388 - accuracy: 0.9594  
Epoch 2165/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0393 - accuracy: 0.9599  
Epoch 2166/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0391 - accuracy: 0.9596  
Epoch 2167/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0397 - accuracy: 0.9598  
Epoch 2168/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0390 - accuracy: 0.9596  
Epoch 2169/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0389 - accuracy: 0.9589  
Epoch 2170/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0391 - accuracy: 0.9592  
Epoch 2171/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0387 - accuracy: 0.9591  
Epoch 2172/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0387 - accuracy: 0.9595  
Epoch 2173/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0387 - accuracy: 0.9590  
Epoch 2174/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0388 - accuracy: 0.9591  
Epoch 2175/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0390 - accuracy: 0.9596  
Epoch 2176/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0394 - accuracy: 0.9598  
 Epoch 2177/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0391 - accuracy: 0.9600  
 Epoch 2178/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0390 - accuracy: 0.9601  
 Epoch 2179/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0382 - accuracy: 0.9587  
 Epoch 2180/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0398 - accuracy: 0.9595  
 Epoch 2181/100000  
 2/2 [=====] - 0s 113ms/step - loss: 0.0391 - accuracy: 0.9590  
 Epoch 2182/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0386 - accuracy: 0.9590  
 Epoch 2183/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0391 - accuracy: 0.9598  
 Epoch 2184/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0388 - accuracy: 0.9596  
 Epoch 2185/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0393 - accuracy: 0.9595  
 Epoch 2186/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0388 - accuracy: 0.9594  
 Epoch 2187/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0388 - accuracy: 0.9603  
 Epoch 2188/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0387 - accuracy: 0.9599  
 Epoch 2189/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0388 - accuracy: 0.9594  
 Epoch 2190/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0389 - accuracy: 0.9602  
 Epoch 2191/100000  
 2/2 [=====] - 0s 113ms/step - loss: 0.0387 - accuracy: 0.9595  
 Epoch 2192/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0389 - accuracy:  
0.9603  
Epoch 2193/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0385 - accuracy:  
0.9592  
Epoch 2194/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0390 - accuracy:  
0.9598  
Epoch 2195/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0384 - accuracy:  
0.9585  
Epoch 2196/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0392 - accuracy:  
0.9593  
Epoch 2197/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0392 - accuracy:  
0.9594  
Epoch 2198/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0388 - accuracy:  
0.9610  
Epoch 2199/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0391 - accuracy:  
0.9587  
Epoch 2200/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0384 - accuracy:  
0.9592  
Epoch 2201/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0389 - accuracy:  
0.9596  
Epoch 2202/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0387 - accuracy:  
0.9598  
Epoch 2203/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0382 - accuracy:  
0.9603  
Epoch 2204/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0389 - accuracy:  
0.9596  
Epoch 2205/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0398 - accuracy:  
0.9596  
Epoch 2206/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0393 - accuracy:  
0.9603  
Epoch 2207/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0400 - accuracy:  
0.9595  
Epoch 2208/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0406 - accuracy:  
0.9590  
Epoch 2209/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0399 - accuracy:  
0.9597  
Epoch 2210/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0394 - accuracy:  
0.9589  
Epoch 2211/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0395 - accuracy:  
0.9597  
Epoch 2212/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0403 - accuracy:  
0.9600  
Epoch 2213/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0391 - accuracy:  
0.9580  
Epoch 2214/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0396 - accuracy:  
0.9610  
Epoch 2215/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0409 - accuracy:  
0.9598  
Epoch 2216/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0411 - accuracy:  
0.9588  
Epoch 2217/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0412 - accuracy:  
0.9600  
Epoch 2218/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0393 - accuracy:  
0.9597  
Epoch 2219/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0392 - accuracy:  
0.9599  
Epoch 2220/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0397 - accuracy:  
0.9602  
Epoch 2221/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0403 - accuracy:  
0.9592  
Epoch 2222/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0415 - accuracy:  
0.9590  
Epoch 2223/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0403 - accuracy:  
0.9592  
Epoch 2224/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0398 - accuracy: 0.9589  
Epoch 2225/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0390 - accuracy: 0.9588  
Epoch 2226/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0392 - accuracy: 0.9588  
Epoch 2227/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0393 - accuracy: 0.9603  
Epoch 2228/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0393 - accuracy: 0.9590  
Epoch 2229/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0388 - accuracy: 0.9590  
Epoch 2230/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0398 - accuracy: 0.9595  
Epoch 2231/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0393 - accuracy: 0.9592  
Epoch 2232/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0391 - accuracy: 0.9602  
Epoch 2233/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0393 - accuracy: 0.9602  
Epoch 2234/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0393 - accuracy: 0.9596  
Epoch 2235/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0400 - accuracy: 0.9587  
Epoch 2236/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0396 - accuracy: 0.9599  
Epoch 2237/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0394 - accuracy: 0.9596  
Epoch 2238/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0393 - accuracy: 0.9589  
Epoch 2239/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0390 - accuracy: 0.9595  
Epoch 2240/100000



2/2 [=====] - 0s 114ms/step - loss: 0.0388 - accuracy: 0.9594  
Epoch 2241/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0392 - accuracy: 0.9592  
Epoch 2242/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0397 - accuracy: 0.9603  
Epoch 2243/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0397 - accuracy: 0.9599  
Epoch 2244/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0394 - accuracy: 0.9593  
Epoch 2245/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0397 - accuracy: 0.9591  
Epoch 2246/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0390 - accuracy: 0.9594  
Epoch 2247/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0395 - accuracy: 0.9596  
Epoch 2248/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0392 - accuracy: 0.9601  
Epoch 2249/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0387 - accuracy: 0.9612  
Epoch 2250/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0385 - accuracy: 0.9603  
Epoch 2251/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0385 - accuracy: 0.9593  
Epoch 2252/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0390 - accuracy: 0.9603  
Epoch 2253/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0385 - accuracy: 0.9598  
Epoch 2254/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0379 - accuracy: 0.9594  
Epoch 2255/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0385 - accuracy: 0.9596  
Epoch 2256/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0389 - accuracy:  
0.9600  
Epoch 2257/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0385 - accuracy:  
0.9590  
Epoch 2258/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0387 - accuracy:  
0.9593  
Epoch 2259/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0387 - accuracy:  
0.9603  
Epoch 2260/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0394 - accuracy:  
0.9595  
Epoch 2261/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0389 - accuracy:  
0.9599  
Epoch 2262/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0387 - accuracy:  
0.9598  
Epoch 2263/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0388 - accuracy:  
0.9604  
Epoch 2264/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0385 - accuracy:  
0.9587  
Epoch 2265/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0388 - accuracy:  
0.9582  
Epoch 2266/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0392 - accuracy:  
0.9596  
Epoch 2267/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0389 - accuracy:  
0.9604  
Epoch 2268/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0383 - accuracy:  
0.9595  
Epoch 2269/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0383 - accuracy:  
0.9594  
Epoch 2270/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0388 - accuracy:  
0.9599  
Epoch 2271/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0388 - accuracy:  
0.9596  
Epoch 2272/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0390 - accuracy: 0.9604  
Epoch 2273/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0394 - accuracy: 0.9602  
Epoch 2274/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0396 - accuracy: 0.9595  
Epoch 2275/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0392 - accuracy: 0.9601  
Epoch 2276/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0394 - accuracy: 0.9603  
Epoch 2277/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0394 - accuracy: 0.9601  
Epoch 2278/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0393 - accuracy: 0.9598  
Epoch 2279/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0385 - accuracy: 0.9595  
Epoch 2280/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0388 - accuracy: 0.9599  
Epoch 2281/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0387 - accuracy: 0.9592  
Epoch 2282/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0399 - accuracy: 0.9590  
Epoch 2283/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0395 - accuracy: 0.9596  
Epoch 2284/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0392 - accuracy: 0.9597  
Epoch 2285/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0392 - accuracy: 0.9599  
Epoch 2286/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0386 - accuracy: 0.9596  
Epoch 2287/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0386 - accuracy: 0.9594  
Epoch 2288/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0384 - accuracy:  
0.9585  
Epoch 2289/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0386 - accuracy:  
0.9602  
Epoch 2290/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0386 - accuracy:  
0.9602  
Epoch 2291/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0383 - accuracy:  
0.9588  
Epoch 2292/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0390 - accuracy:  
0.9595  
Epoch 2293/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0387 - accuracy:  
0.9593  
Epoch 2294/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0383 - accuracy:  
0.9598  
Epoch 2295/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0381 - accuracy:  
0.9593  
Epoch 2296/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0383 - accuracy:  
0.9596  
Epoch 2297/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0384 - accuracy:  
0.9592  
Epoch 2298/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0396 - accuracy:  
0.9588  
Epoch 2299/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0392 - accuracy:  
0.9603  
Epoch 2300/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0392 - accuracy:  
0.9590  
Epoch 2301/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0398 - accuracy:  
0.9589  
Epoch 2302/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0395 - accuracy:  
0.9593  
Epoch 2303/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0389 - accuracy:  
0.9608  
Epoch 2304/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0386 - accuracy: 0.9589  
 Epoch 2305/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0389 - accuracy: 0.9605  
 Epoch 2306/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0394 - accuracy: 0.9595  
 Epoch 2307/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0387 - accuracy: 0.9597  
 Epoch 2308/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0386 - accuracy: 0.9592  
 Epoch 2309/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0385 - accuracy: 0.9603  
 Epoch 2310/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0382 - accuracy: 0.9599  
 Epoch 2311/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0381 - accuracy: 0.9585  
 Epoch 2312/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0391 - accuracy: 0.9599  
 Epoch 2313/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0392 - accuracy: 0.9591  
 Epoch 2314/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0388 - accuracy: 0.9602  
 Epoch 2315/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0386 - accuracy: 0.9597  
 Epoch 2316/100000  
 2/2 [=====] - 0s 113ms/step - loss: 0.0400 - accuracy: 0.9602  
 Epoch 2317/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0410 - accuracy: 0.9591  
 Epoch 2318/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0391 - accuracy: 0.9598  
 Epoch 2319/100000  
 2/2 [=====] - 0s 113ms/step - loss: 0.0386 - accuracy: 0.9601  
 Epoch 2320/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0386 - accuracy: 0.9595  
Epoch 2321/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0393 - accuracy: 0.9597  
Epoch 2322/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0388 - accuracy: 0.9592  
Epoch 2323/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0384 - accuracy: 0.9597  
Epoch 2324/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0388 - accuracy: 0.9605  
Epoch 2325/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0394 - accuracy: 0.9596  
Epoch 2326/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0386 - accuracy: 0.9597  
Epoch 2327/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0381 - accuracy: 0.9596  
Epoch 2328/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0381 - accuracy: 0.9598  
Epoch 2329/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0386 - accuracy: 0.9603  
Epoch 2330/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0385 - accuracy: 0.9587  
Epoch 2331/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0385 - accuracy: 0.9596  
Epoch 2332/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0384 - accuracy: 0.9595  
Epoch 2333/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0389 - accuracy: 0.9604  
Epoch 2334/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0385 - accuracy: 0.9591  
Epoch 2335/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0391 - accuracy: 0.9588  
Epoch 2336/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0394 - accuracy:  
0.9593  
Epoch 2337/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0398 - accuracy:  
0.9596  
Epoch 2338/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0392 - accuracy:  
0.9602  
Epoch 2339/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0390 - accuracy:  
0.9593  
Epoch 2340/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0395 - accuracy:  
0.9588  
Epoch 2341/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0386 - accuracy:  
0.9594  
Epoch 2342/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0394 - accuracy:  
0.9594  
Epoch 2343/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0390 - accuracy:  
0.9599  
Epoch 2344/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0389 - accuracy:  
0.9595  
Epoch 2345/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0388 - accuracy:  
0.9592  
Epoch 2346/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0385 - accuracy:  
0.9596  
Epoch 2347/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0392 - accuracy:  
0.9598  
Epoch 2348/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0382 - accuracy:  
0.9604  
Epoch 2349/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0383 - accuracy:  
0.9590  
Epoch 2350/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0385 - accuracy:  
0.9602  
Epoch 2351/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0384 - accuracy:  
0.9601  
Epoch 2352/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0383 - accuracy: 0.9606  
Epoch 2353/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0386 - accuracy: 0.9593  
Epoch 2354/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0382 - accuracy: 0.9594  
Epoch 2355/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0383 - accuracy: 0.9590  
Epoch 2356/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0394 - accuracy: 0.9594  
Epoch 2357/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0384 - accuracy: 0.9593  
Epoch 2358/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0389 - accuracy: 0.9593  
Epoch 2359/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0391 - accuracy: 0.9595  
Epoch 2360/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0391 - accuracy: 0.9602  
Epoch 2361/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0391 - accuracy: 0.9601  
Epoch 2362/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0388 - accuracy: 0.9598  
Epoch 2363/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0390 - accuracy: 0.9597  
Epoch 2364/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0381 - accuracy: 0.9594  
Epoch 2365/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0396 - accuracy: 0.9605  
Epoch 2366/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0384 - accuracy: 0.9591  
Epoch 2367/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0384 - accuracy: 0.9591  
Epoch 2368/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0386 - accuracy:  
0.9597  
Epoch 2369/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0388 - accuracy:  
0.9598  
Epoch 2370/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0389 - accuracy:  
0.9591  
Epoch 2371/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0385 - accuracy:  
0.9593  
Epoch 2372/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0387 - accuracy:  
0.9592  
Epoch 2373/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0386 - accuracy:  
0.9593  
Epoch 2374/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0377 - accuracy:  
0.9587  
Epoch 2375/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0400 - accuracy:  
0.9599  
Epoch 2376/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0390 - accuracy:  
0.9591  
Epoch 2377/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0393 - accuracy:  
0.9597  
Epoch 2378/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0393 - accuracy:  
0.9587  
Epoch 2379/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0392 - accuracy:  
0.9592  
Epoch 2380/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0386 - accuracy:  
0.9596  
Epoch 2381/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0383 - accuracy:  
0.9593  
Epoch 2382/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0383 - accuracy:  
0.9591  
Epoch 2383/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0386 - accuracy:  
0.9596  
Epoch 2384/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0385 - accuracy: 0.9597  
 Epoch 2385/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0384 - accuracy: 0.9588  
 Epoch 2386/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0381 - accuracy: 0.9597  
 Epoch 2387/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0389 - accuracy: 0.9597  
 Epoch 2388/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0391 - accuracy: 0.9599  
 Epoch 2389/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0385 - accuracy: 0.9587  
 Epoch 2390/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0384 - accuracy: 0.9603  
 Epoch 2391/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0385 - accuracy: 0.9596  
 Epoch 2392/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0392 - accuracy: 0.9604  
 Epoch 2393/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0389 - accuracy: 0.9594  
 Epoch 2394/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0379 - accuracy: 0.9590  
 Epoch 2395/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0385 - accuracy: 0.9605  
 Epoch 2396/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0378 - accuracy: 0.9593  
 Epoch 2397/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0385 - accuracy: 0.9590  
 Epoch 2398/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0387 - accuracy: 0.9593  
 Epoch 2399/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0389 - accuracy: 0.9593  
 Epoch 2400/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0386 - accuracy: 0.9595  
 Epoch 2401/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0385 - accuracy: 0.9590  
 Epoch 2402/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0383 - accuracy: 0.9598  
 Epoch 2403/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0381 - accuracy: 0.9584  
 Epoch 2404/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0386 - accuracy: 0.9590  
 Epoch 2405/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0386 - accuracy: 0.9599  
 Epoch 2406/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0386 - accuracy: 0.9599  
 Epoch 2407/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0383 - accuracy: 0.9588  
 Epoch 2408/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0394 - accuracy: 0.9597  
 Epoch 2409/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0381 - accuracy: 0.9600  
 Epoch 2410/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0384 - accuracy: 0.9594  
 Epoch 2411/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0390 - accuracy: 0.9598  
 Epoch 2412/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0384 - accuracy: 0.9600  
 Epoch 2413/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0386 - accuracy: 0.9599  
 Epoch 2414/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0382 - accuracy: 0.9598  
 Epoch 2415/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0392 - accuracy: 0.9593  
 Epoch 2416/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0396 - accuracy:  
0.9587  
Epoch 2417/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0390 - accuracy:  
0.9604  
Epoch 2418/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0386 - accuracy:  
0.9596  
Epoch 2419/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0387 - accuracy:  
0.9601  
Epoch 2420/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0388 - accuracy:  
0.9596  
Epoch 2421/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0385 - accuracy:  
0.9584  
Epoch 2422/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0389 - accuracy:  
0.9595  
Epoch 2423/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0385 - accuracy:  
0.9605  
Epoch 2424/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0383 - accuracy:  
0.9588  
Epoch 2425/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0386 - accuracy:  
0.9597  
Epoch 2426/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0385 - accuracy:  
0.9594  
Epoch 2427/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0385 - accuracy:  
0.9603  
Epoch 2428/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0381 - accuracy:  
0.9603  
Epoch 2429/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0382 - accuracy:  
0.9590  
Epoch 2430/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0381 - accuracy:  
0.9595  
Epoch 2431/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0384 - accuracy:  
0.9606  
Epoch 2432/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0381 - accuracy:  
0.9588  
Epoch 2433/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0385 - accuracy:  
0.9590  
Epoch 2434/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0380 - accuracy:  
0.9590  
Epoch 2435/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0384 - accuracy:  
0.9603  
Epoch 2436/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0387 - accuracy:  
0.9602  
Epoch 2437/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0381 - accuracy:  
0.9592  
Epoch 2438/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0388 - accuracy:  
0.9592  
Epoch 2439/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0388 - accuracy:  
0.9599  
Epoch 2440/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0388 - accuracy:  
0.9596  
Epoch 2441/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0383 - accuracy:  
0.9595  
Epoch 2442/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0383 - accuracy:  
0.9604  
Epoch 2443/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0380 - accuracy:  
0.9590  
Epoch 2444/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0387 - accuracy:  
0.9597  
Epoch 2445/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0387 - accuracy:  
0.9599  
Epoch 2446/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0385 - accuracy:  
0.9596  
Epoch 2447/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0391 - accuracy:  
0.9594  
Epoch 2448/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0395 - accuracy:  
0.9603  
Epoch 2449/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0401 - accuracy:  
0.9587  
Epoch 2450/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0422 - accuracy:  
0.9598  
Epoch 2451/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0397 - accuracy:  
0.9595  
Epoch 2452/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0388 - accuracy:  
0.9594  
Epoch 2453/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0389 - accuracy:  
0.9602  
Epoch 2454/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0388 - accuracy:  
0.9589  
Epoch 2455/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0404 - accuracy:  
0.9594  
Epoch 2456/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0395 - accuracy:  
0.9592  
Epoch 2457/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0382 - accuracy:  
0.9595  
Epoch 2458/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0387 - accuracy:  
0.9594  
Epoch 2459/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0385 - accuracy:  
0.9596  
Epoch 2460/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0386 - accuracy:  
0.9595  
Epoch 2461/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0384 - accuracy:  
0.9593  
Epoch 2462/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0380 - accuracy:  
0.9588  
Epoch 2463/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0383 - accuracy:  
0.9603  
Epoch 2464/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0385 - accuracy: 0.9598  
Epoch 2465/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0388 - accuracy: 0.9603  
Epoch 2466/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0385 - accuracy: 0.9603  
Epoch 2467/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0380 - accuracy: 0.9589  
Epoch 2468/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0382 - accuracy: 0.9597  
Epoch 2469/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0381 - accuracy: 0.9604  
Epoch 2470/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0381 - accuracy: 0.9591  
Epoch 2471/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0378 - accuracy: 0.9603  
Epoch 2472/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0384 - accuracy: 0.9592  
Epoch 2473/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0379 - accuracy: 0.9591  
Epoch 2474/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0381 - accuracy: 0.9591  
Epoch 2475/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0381 - accuracy: 0.9594  
Epoch 2476/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0382 - accuracy: 0.9593  
Epoch 2477/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0380 - accuracy: 0.9584  
Epoch 2478/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0381 - accuracy: 0.9588  
Epoch 2479/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0381 - accuracy: 0.9596  
Epoch 2480/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0378 - accuracy:  
0.9603  
Epoch 2481/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0386 - accuracy:  
0.9606  
Epoch 2482/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0389 - accuracy:  
0.9600  
Epoch 2483/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0382 - accuracy:  
0.9596  
Epoch 2484/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0383 - accuracy:  
0.9603  
Epoch 2485/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0380 - accuracy:  
0.9587  
Epoch 2486/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0382 - accuracy:  
0.9594  
Epoch 2487/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0381 - accuracy:  
0.9600  
Epoch 2488/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0390 - accuracy:  
0.9595  
Epoch 2489/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0400 - accuracy:  
0.9591  
Epoch 2490/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0384 - accuracy:  
0.9591  
Epoch 2491/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0386 - accuracy:  
0.9601  
Epoch 2492/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0379 - accuracy:  
0.9596  
Epoch 2493/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0384 - accuracy:  
0.9587  
Epoch 2494/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0380 - accuracy:  
0.9598  
Epoch 2495/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0377 - accuracy:  
0.9593  
Epoch 2496/100000



2/2 [=====] - 0s 114ms/step - loss: 0.0377 - accuracy:  
0.9595  
Epoch 2497/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0380 - accuracy:  
0.9595  
Epoch 2498/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0377 - accuracy:  
0.9592  
Epoch 2499/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0380 - accuracy:  
0.9595  
Epoch 2500/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0378 - accuracy:  
0.9589  
Epoch 2501/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0377 - accuracy:  
0.9600  
Epoch 2502/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0377 - accuracy:  
0.9594  
Epoch 2503/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0383 - accuracy:  
0.9589  
Epoch 2504/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0382 - accuracy:  
0.9591  
Epoch 2505/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0380 - accuracy:  
0.9594  
Epoch 2506/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0382 - accuracy:  
0.9593  
Epoch 2507/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0387 - accuracy:  
0.9597  
Epoch 2508/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0375 - accuracy:  
0.9594  
Epoch 2509/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0381 - accuracy:  
0.9598  
Epoch 2510/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0382 - accuracy:  
0.9590  
Epoch 2511/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0385 - accuracy:  
0.9593  
Epoch 2512/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0372 - accuracy:  
0.9588  
Epoch 2513/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0386 - accuracy:  
0.9599  
Epoch 2514/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0384 - accuracy:  
0.9603  
Epoch 2515/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0382 - accuracy:  
0.9591  
Epoch 2516/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0382 - accuracy:  
0.9600  
Epoch 2517/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0386 - accuracy:  
0.9595  
Epoch 2518/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0401 - accuracy:  
0.9592  
Epoch 2519/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0409 - accuracy:  
0.9598  
Epoch 2520/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0392 - accuracy:  
0.9590  
Epoch 2521/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0385 - accuracy:  
0.9591  
Epoch 2522/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0399 - accuracy:  
0.9594  
Epoch 2523/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0398 - accuracy:  
0.9591  
Epoch 2524/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0393 - accuracy:  
0.9591  
Epoch 2525/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0392 - accuracy:  
0.9600  
Epoch 2526/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0382 - accuracy:  
0.9607  
Epoch 2527/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0379 - accuracy:  
0.9605  
Epoch 2528/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0388 - accuracy:  
0.9603  
Epoch 2529/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0380 - accuracy:  
0.9595  
Epoch 2530/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0384 - accuracy:  
0.9596  
Epoch 2531/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0387 - accuracy:  
0.9605  
Epoch 2532/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0381 - accuracy:  
0.9589  
Epoch 2533/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0383 - accuracy:  
0.9599  
Epoch 2534/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0387 - accuracy:  
0.9602  
Epoch 2535/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0382 - accuracy:  
0.9603  
Epoch 2536/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0380 - accuracy:  
0.9603  
Epoch 2537/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0380 - accuracy:  
0.9600  
Epoch 2538/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0381 - accuracy:  
0.9594  
Epoch 2539/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0382 - accuracy:  
0.9597  
Epoch 2540/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0381 - accuracy:  
0.9595  
Epoch 2541/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0382 - accuracy:  
0.9601  
Epoch 2542/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0384 - accuracy:  
0.9594  
Epoch 2543/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0382 - accuracy:  
0.9599  
Epoch 2544/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0384 - accuracy:  
0.9594  
Epoch 2545/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0381 - accuracy:  
0.9598  
Epoch 2546/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0388 - accuracy:  
0.9604  
Epoch 2547/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0376 - accuracy:  
0.9599  
Epoch 2548/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0378 - accuracy:  
0.9595  
Epoch 2549/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0377 - accuracy:  
0.9590  
Epoch 2550/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0379 - accuracy:  
0.9596  
Epoch 2551/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0382 - accuracy:  
0.9598  
Epoch 2552/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0385 - accuracy:  
0.9596  
Epoch 2553/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0383 - accuracy:  
0.9591  
Epoch 2554/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0375 - accuracy:  
0.9592  
Epoch 2555/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0372 - accuracy:  
0.9580  
Epoch 2556/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0393 - accuracy:  
0.9595  
Epoch 2557/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0385 - accuracy:  
0.9591  
Epoch 2558/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0391 - accuracy:  
0.9606  
Epoch 2559/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0395 - accuracy:  
0.9607  
Epoch 2560/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0383 - accuracy:  
0.9598  
Epoch 2561/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0389 - accuracy:  
0.9596  
Epoch 2562/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0388 - accuracy:  
0.9589  
Epoch 2563/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0386 - accuracy:  
0.9609  
Epoch 2564/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0382 - accuracy:  
0.9595  
Epoch 2565/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0381 - accuracy:  
0.9600  
Epoch 2566/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0383 - accuracy:  
0.9599  
Epoch 2567/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0381 - accuracy:  
0.9602  
Epoch 2568/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0382 - accuracy:  
0.9597  
Epoch 2569/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0379 - accuracy:  
0.9596  
Epoch 2570/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0384 - accuracy:  
0.9600  
Epoch 2571/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0382 - accuracy:  
0.9596  
Epoch 2572/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0400 - accuracy:  
0.9586  
Epoch 2573/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0381 - accuracy:  
0.9592  
Epoch 2574/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0376 - accuracy:  
0.9599  
Epoch 2575/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0379 - accuracy:  
0.9609  
Epoch 2576/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0385 - accuracy:  
0.9591  
Epoch 2577/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0388 - accuracy:  
0.9602  
Epoch 2578/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0391 - accuracy:  
0.9593  
Epoch 2579/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0386 - accuracy:  
0.9599  
Epoch 2580/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0385 - accuracy:  
0.9592  
Epoch 2581/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0389 - accuracy:  
0.9606  
Epoch 2582/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0384 - accuracy:  
0.9593  
Epoch 2583/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0379 - accuracy:  
0.9583  
Epoch 2584/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0385 - accuracy:  
0.9584  
Epoch 2585/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0377 - accuracy:  
0.9588  
Epoch 2586/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0378 - accuracy:  
0.9590  
Epoch 2587/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0386 - accuracy:  
0.9602  
Epoch 2588/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0384 - accuracy:  
0.9600  
Epoch 2589/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0385 - accuracy:  
0.9590  
Epoch 2590/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0388 - accuracy:  
0.9599  
Epoch 2591/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0383 - accuracy:  
0.9599  
Epoch 2592/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0384 - accuracy:  
0.9591  
Epoch 2593/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0378 - accuracy:  
0.9597  
Epoch 2594/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0381 - accuracy:  
0.9596  
Epoch 2595/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0382 - accuracy:  
0.9597  
Epoch 2596/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0380 - accuracy:  
0.9590  
Epoch 2597/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0376 - accuracy:  
0.9588  
Epoch 2598/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0380 - accuracy:  
0.9594  
Epoch 2599/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0379 - accuracy:  
0.9583  
Epoch 2600/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0385 - accuracy:  
0.9592  
Epoch 2601/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0377 - accuracy:  
0.9590  
Epoch 2602/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0382 - accuracy:  
0.9588  
Epoch 2603/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0378 - accuracy:  
0.9602  
Epoch 2604/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0385 - accuracy:  
0.9594  
Epoch 2605/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0385 - accuracy:  
0.9599  
Epoch 2606/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0390 - accuracy:  
0.9607  
Epoch 2607/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0381 - accuracy:  
0.9583  
Epoch 2608/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0384 - accuracy: 0.9599  
 Epoch 2609/100000  
 2/2 [=====] - 0s 113ms/step - loss: 0.0391 - accuracy: 0.9599  
 Epoch 2610/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0384 - accuracy: 0.9589  
 Epoch 2611/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0375 - accuracy: 0.9587  
 Epoch 2612/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0384 - accuracy: 0.9598  
 Epoch 2613/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0391 - accuracy: 0.9597  
 Epoch 2614/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0384 - accuracy: 0.9590  
 Epoch 2615/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0385 - accuracy: 0.9593  
 Epoch 2616/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0379 - accuracy: 0.9593  
 Epoch 2617/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0390 - accuracy: 0.9606  
 Epoch 2618/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0388 - accuracy: 0.9595  
 Epoch 2619/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0376 - accuracy: 0.9596  
 Epoch 2620/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0380 - accuracy: 0.9592  
 Epoch 2621/100000  
 2/2 [=====] - 0s 113ms/step - loss: 0.0375 - accuracy: 0.9600  
 Epoch 2622/100000  
 2/2 [=====] - 0s 120ms/step - loss: 0.0386 - accuracy: 0.9605  
 Epoch 2623/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0377 - accuracy: 0.9601  
 Epoch 2624/100000



2/2 [=====] - 0s 114ms/step - loss: 0.0380 - accuracy:  
0.9600  
Epoch 2625/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0378 - accuracy:  
0.9596  
Epoch 2626/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0377 - accuracy:  
0.9592  
Epoch 2627/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0370 - accuracy:  
0.9600  
Epoch 2628/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0377 - accuracy:  
0.9593  
Epoch 2629/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0381 - accuracy:  
0.9593  
Epoch 2630/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0383 - accuracy:  
0.9591  
Epoch 2631/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0376 - accuracy:  
0.9605  
Epoch 2632/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0377 - accuracy:  
0.9601  
Epoch 2633/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0383 - accuracy:  
0.9605  
Epoch 2634/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0377 - accuracy:  
0.9598  
Epoch 2635/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0371 - accuracy:  
0.9589  
Epoch 2636/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0378 - accuracy:  
0.9603  
Epoch 2637/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0384 - accuracy:  
0.9598  
Epoch 2638/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0380 - accuracy:  
0.9591  
Epoch 2639/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0378 - accuracy:  
0.9593  
Epoch 2640/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0379 - accuracy:  
0.9602  
Epoch 2641/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0377 - accuracy:  
0.9592  
Epoch 2642/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0378 - accuracy:  
0.9598  
Epoch 2643/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0386 - accuracy:  
0.9594  
Epoch 2644/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0375 - accuracy:  
0.9602  
Epoch 2645/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0381 - accuracy:  
0.9592  
Epoch 2646/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0375 - accuracy:  
0.9590  
Epoch 2647/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0384 - accuracy:  
0.9597  
Epoch 2648/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0380 - accuracy:  
0.9600  
Epoch 2649/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0380 - accuracy:  
0.9599  
Epoch 2650/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0378 - accuracy:  
0.9599  
Epoch 2651/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0381 - accuracy:  
0.9593  
Epoch 2652/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0377 - accuracy:  
0.9601  
Epoch 2653/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0381 - accuracy:  
0.9602  
Epoch 2654/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0377 - accuracy:  
0.9599  
Epoch 2655/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0381 - accuracy:  
0.9591  
Epoch 2656/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0385 - accuracy: 0.9602  
 Epoch 2657/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0376 - accuracy: 0.9590  
 Epoch 2658/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0385 - accuracy: 0.9592  
 Epoch 2659/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0382 - accuracy: 0.9589  
 Epoch 2660/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0387 - accuracy: 0.9603  
 Epoch 2661/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0383 - accuracy: 0.9589  
 Epoch 2662/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0386 - accuracy: 0.9595  
 Epoch 2663/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0381 - accuracy: 0.9595  
 Epoch 2664/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0385 - accuracy: 0.9600  
 Epoch 2665/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0388 - accuracy: 0.9587  
 Epoch 2666/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0388 - accuracy: 0.9588  
 Epoch 2667/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0375 - accuracy: 0.9588  
 Epoch 2668/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0378 - accuracy: 0.9607  
 Epoch 2669/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0380 - accuracy: 0.9592  
 Epoch 2670/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0378 - accuracy: 0.9598  
 Epoch 2671/100000  
 2/2 [=====] - 0s 113ms/step - loss: 0.0378 - accuracy: 0.9598  
 Epoch 2672/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0381 - accuracy:  
0.9600  
Epoch 2673/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0377 - accuracy:  
0.9593  
Epoch 2674/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0378 - accuracy:  
0.9591  
Epoch 2675/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0382 - accuracy:  
0.9594  
Epoch 2676/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0377 - accuracy:  
0.9595  
Epoch 2677/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0379 - accuracy:  
0.9595  
Epoch 2678/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0376 - accuracy:  
0.9600  
Epoch 2679/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0384 - accuracy:  
0.9609  
Epoch 2680/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0383 - accuracy:  
0.9595  
Epoch 2681/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0382 - accuracy:  
0.9592  
Epoch 2682/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0380 - accuracy:  
0.9593  
Epoch 2683/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0379 - accuracy:  
0.9592  
Epoch 2684/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0385 - accuracy:  
0.9589  
Epoch 2685/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0377 - accuracy:  
0.9594  
Epoch 2686/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0380 - accuracy:  
0.9600  
Epoch 2687/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0387 - accuracy:  
0.9601  
Epoch 2688/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0381 - accuracy: 0.9604  
Epoch 2689/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0399 - accuracy: 0.9600  
Epoch 2690/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0393 - accuracy: 0.9600  
Epoch 2691/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0387 - accuracy: 0.9605  
Epoch 2692/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0379 - accuracy: 0.9598  
Epoch 2693/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0381 - accuracy: 0.9597  
Epoch 2694/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0381 - accuracy: 0.9602  
Epoch 2695/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0378 - accuracy: 0.9600  
Epoch 2696/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0378 - accuracy: 0.9603  
Epoch 2697/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0375 - accuracy: 0.9598  
Epoch 2698/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0379 - accuracy: 0.9597  
Epoch 2699/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0377 - accuracy: 0.9597  
Epoch 2700/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0381 - accuracy: 0.9607  
Epoch 2701/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0373 - accuracy: 0.9600  
Epoch 2702/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0378 - accuracy: 0.9590  
Epoch 2703/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0371 - accuracy: 0.9599  
Epoch 2704/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0374 - accuracy:  
0.9592  
Epoch 2705/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0371 - accuracy:  
0.9597  
Epoch 2706/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0373 - accuracy:  
0.9590  
Epoch 2707/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0374 - accuracy:  
0.9603  
Epoch 2708/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0375 - accuracy:  
0.9597  
Epoch 2709/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0374 - accuracy:  
0.9591  
Epoch 2710/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0373 - accuracy:  
0.9591  
Epoch 2711/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0373 - accuracy:  
0.9592  
Epoch 2712/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0376 - accuracy:  
0.9600  
Epoch 2713/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0373 - accuracy:  
0.9587  
Epoch 2714/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0368 - accuracy:  
0.9593  
Epoch 2715/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0378 - accuracy:  
0.9592  
Epoch 2716/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0385 - accuracy:  
0.9604  
Epoch 2717/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0392 - accuracy:  
0.9608  
Epoch 2718/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0390 - accuracy:  
0.9591  
Epoch 2719/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0393 - accuracy:  
0.9590  
Epoch 2720/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0380 - accuracy: 0.9588  
Epoch 2721/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0384 - accuracy: 0.9592  
Epoch 2722/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0389 - accuracy: 0.9592  
Epoch 2723/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0399 - accuracy: 0.9593  
Epoch 2724/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0389 - accuracy: 0.9602  
Epoch 2725/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0376 - accuracy: 0.9591  
Epoch 2726/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0391 - accuracy: 0.9603  
Epoch 2727/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0385 - accuracy: 0.9594  
Epoch 2728/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0388 - accuracy: 0.9586  
Epoch 2729/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0377 - accuracy: 0.9600  
Epoch 2730/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0384 - accuracy: 0.9605  
Epoch 2731/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0378 - accuracy: 0.9594  
Epoch 2732/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0381 - accuracy: 0.9595  
Epoch 2733/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0378 - accuracy: 0.9603  
Epoch 2734/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0382 - accuracy: 0.9596  
Epoch 2735/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0377 - accuracy: 0.9597  
Epoch 2736/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0383 - accuracy:  
0.9587  
Epoch 2737/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0380 - accuracy:  
0.9595  
Epoch 2738/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0374 - accuracy:  
0.9597  
Epoch 2739/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0379 - accuracy:  
0.9593  
Epoch 2740/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0374 - accuracy:  
0.9582  
Epoch 2741/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0389 - accuracy:  
0.9593  
Epoch 2742/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0379 - accuracy:  
0.9589  
Epoch 2743/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0375 - accuracy:  
0.9590  
Epoch 2744/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0378 - accuracy:  
0.9591  
Epoch 2745/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0374 - accuracy:  
0.9594  
Epoch 2746/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0377 - accuracy:  
0.9592  
Epoch 2747/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0373 - accuracy:  
0.9599  
Epoch 2748/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0373 - accuracy:  
0.9590  
Epoch 2749/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0375 - accuracy:  
0.9593  
Epoch 2750/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0373 - accuracy:  
0.9600  
Epoch 2751/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0377 - accuracy:  
0.9594  
Epoch 2752/100000



2/2 [=====] - 0s 114ms/step - loss: 0.0374 - accuracy:  
0.9592  
Epoch 2753/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0370 - accuracy:  
0.9586  
Epoch 2754/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0376 - accuracy:  
0.9593  
Epoch 2755/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0378 - accuracy:  
0.9603  
Epoch 2756/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0386 - accuracy:  
0.9596  
Epoch 2757/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0382 - accuracy:  
0.9603  
Epoch 2758/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0375 - accuracy:  
0.9589  
Epoch 2759/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0381 - accuracy:  
0.9611  
Epoch 2760/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0373 - accuracy:  
0.9593  
Epoch 2761/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0379 - accuracy:  
0.9603  
Epoch 2762/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0378 - accuracy:  
0.9600  
Epoch 2763/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0372 - accuracy:  
0.9586  
Epoch 2764/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0372 - accuracy:  
0.9593  
Epoch 2765/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0375 - accuracy:  
0.9591  
Epoch 2766/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0376 - accuracy:  
0.9596  
Epoch 2767/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0369 - accuracy:  
0.9594  
Epoch 2768/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0376 - accuracy:  
0.9593  
Epoch 2769/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0373 - accuracy:  
0.9589  
Epoch 2770/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0377 - accuracy:  
0.9596  
Epoch 2771/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0374 - accuracy:  
0.9586  
Epoch 2772/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0371 - accuracy:  
0.9584  
Epoch 2773/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0378 - accuracy:  
0.9599  
Epoch 2774/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0381 - accuracy:  
0.9585  
Epoch 2775/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0373 - accuracy:  
0.9602  
Epoch 2776/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0374 - accuracy:  
0.9591  
Epoch 2777/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0377 - accuracy:  
0.9592  
Epoch 2778/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0383 - accuracy:  
0.9595  
Epoch 2779/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0376 - accuracy:  
0.9590  
Epoch 2780/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0372 - accuracy:  
0.9595  
Epoch 2781/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0380 - accuracy:  
0.9595  
Epoch 2782/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0377 - accuracy:  
0.9599  
Epoch 2783/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0378 - accuracy:  
0.9588  
Epoch 2784/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0375 - accuracy: 0.9603  
 Epoch 2785/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0384 - accuracy: 0.9596  
 Epoch 2786/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0382 - accuracy: 0.9602  
 Epoch 2787/100000  
 2/2 [=====] - 0s 113ms/step - loss: 0.0377 - accuracy: 0.9592  
 Epoch 2788/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0369 - accuracy: 0.9586  
 Epoch 2789/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0374 - accuracy: 0.9590  
 Epoch 2790/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0374 - accuracy: 0.9604  
 Epoch 2791/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0377 - accuracy: 0.9597  
 Epoch 2792/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0380 - accuracy: 0.9594  
 Epoch 2793/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0376 - accuracy: 0.9595  
 Epoch 2794/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0374 - accuracy: 0.9593  
 Epoch 2795/100000  
 2/2 [=====] - 0s 113ms/step - loss: 0.0378 - accuracy: 0.9601  
 Epoch 2796/100000  
 2/2 [=====] - 0s 113ms/step - loss: 0.0381 - accuracy: 0.9602  
 Epoch 2797/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0382 - accuracy: 0.9593  
 Epoch 2798/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0375 - accuracy: 0.9589  
 Epoch 2799/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0382 - accuracy: 0.9597  
 Epoch 2800/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0383 - accuracy:  
0.9598  
Epoch 2801/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0379 - accuracy:  
0.9592  
Epoch 2802/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0377 - accuracy:  
0.9599  
Epoch 2803/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0377 - accuracy:  
0.9593  
Epoch 2804/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0373 - accuracy:  
0.9597  
Epoch 2805/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0379 - accuracy:  
0.9595  
Epoch 2806/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0379 - accuracy:  
0.9597  
Epoch 2807/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0374 - accuracy:  
0.9596  
Epoch 2808/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0372 - accuracy:  
0.9591  
Epoch 2809/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0376 - accuracy:  
0.9595  
Epoch 2810/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0379 - accuracy:  
0.9594  
Epoch 2811/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0372 - accuracy:  
0.9601  
Epoch 2812/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0378 - accuracy:  
0.9593  
Epoch 2813/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0375 - accuracy:  
0.9600  
Epoch 2814/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0378 - accuracy:  
0.9596  
Epoch 2815/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0371 - accuracy:  
0.9592  
Epoch 2816/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0378 - accuracy:  
0.9600  
Epoch 2817/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0371 - accuracy:  
0.9601  
Epoch 2818/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0371 - accuracy:  
0.9596  
Epoch 2819/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0369 - accuracy:  
0.9586  
Epoch 2820/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0373 - accuracy:  
0.9597  
Epoch 2821/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0372 - accuracy:  
0.9592  
Epoch 2822/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0373 - accuracy:  
0.9604  
Epoch 2823/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0374 - accuracy:  
0.9599  
Epoch 2824/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0376 - accuracy:  
0.9597  
Epoch 2825/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0371 - accuracy:  
0.9585  
Epoch 2826/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0380 - accuracy:  
0.9590  
Epoch 2827/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0372 - accuracy:  
0.9585  
Epoch 2828/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0375 - accuracy:  
0.9593  
Epoch 2829/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0374 - accuracy:  
0.9602  
Epoch 2830/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0368 - accuracy:  
0.9586  
Epoch 2831/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0392 - accuracy:  
0.9588  
Epoch 2832/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0377 - accuracy:  
0.9589  
Epoch 2833/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0381 - accuracy:  
0.9602  
Epoch 2834/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0376 - accuracy:  
0.9590  
Epoch 2835/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0385 - accuracy:  
0.9599  
Epoch 2836/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0376 - accuracy:  
0.9598  
Epoch 2837/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0375 - accuracy:  
0.9599  
Epoch 2838/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0373 - accuracy:  
0.9592  
Epoch 2839/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0378 - accuracy:  
0.9599  
Epoch 2840/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0376 - accuracy:  
0.9596  
Epoch 2841/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0383 - accuracy:  
0.9592  
Epoch 2842/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0404 - accuracy:  
0.9586  
Epoch 2843/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0394 - accuracy:  
0.9601  
Epoch 2844/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0399 - accuracy:  
0.9594  
Epoch 2845/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0398 - accuracy:  
0.9588  
Epoch 2846/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0382 - accuracy:  
0.9588  
Epoch 2847/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0391 - accuracy:  
0.9595  
Epoch 2848/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0377 - accuracy:  
0.9590  
Epoch 2849/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0382 - accuracy:  
0.9597  
Epoch 2850/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0386 - accuracy:  
0.9604  
Epoch 2851/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0383 - accuracy:  
0.9590  
Epoch 2852/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0395 - accuracy:  
0.9597  
Epoch 2853/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0385 - accuracy:  
0.9587  
Epoch 2854/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0386 - accuracy:  
0.9596  
Epoch 2855/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0379 - accuracy:  
0.9585  
Epoch 2856/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0373 - accuracy:  
0.9589  
Epoch 2857/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0379 - accuracy:  
0.9605  
Epoch 2858/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0395 - accuracy:  
0.9602  
Epoch 2859/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0394 - accuracy:  
0.9598  
Epoch 2860/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0383 - accuracy:  
0.9590  
Epoch 2861/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0382 - accuracy:  
0.9594  
Epoch 2862/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0384 - accuracy:  
0.9602  
Epoch 2863/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0391 - accuracy:  
0.9589  
Epoch 2864/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0423 - accuracy: 0.9594  
 Epoch 2865/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0409 - accuracy: 0.9594  
 Epoch 2866/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0399 - accuracy: 0.9590  
 Epoch 2867/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0392 - accuracy: 0.9594  
 Epoch 2868/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0378 - accuracy: 0.9606  
 Epoch 2869/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0388 - accuracy: 0.9591  
 Epoch 2870/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0383 - accuracy: 0.9600  
 Epoch 2871/100000  
 2/2 [=====] - 0s 113ms/step - loss: 0.0379 - accuracy: 0.9606  
 Epoch 2872/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0382 - accuracy: 0.9593  
 Epoch 2873/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0386 - accuracy: 0.9595  
 Epoch 2874/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0376 - accuracy: 0.9601  
 Epoch 2875/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0378 - accuracy: 0.9602  
 Epoch 2876/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0378 - accuracy: 0.9593  
 Epoch 2877/100000  
 2/2 [=====] - 0s 120ms/step - loss: 0.0372 - accuracy: 0.9598  
 Epoch 2878/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0379 - accuracy: 0.9602  
 Epoch 2879/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0374 - accuracy: 0.9591  
 Epoch 2880/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0380 - accuracy: 0.9607  
Epoch 2881/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0379 - accuracy: 0.9593  
Epoch 2882/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0385 - accuracy: 0.9592  
Epoch 2883/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0380 - accuracy: 0.9595  
Epoch 2884/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0377 - accuracy: 0.9595  
Epoch 2885/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0371 - accuracy: 0.9588  
Epoch 2886/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0372 - accuracy: 0.9588  
Epoch 2887/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0373 - accuracy: 0.9596  
Epoch 2888/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0371 - accuracy: 0.9596  
Epoch 2889/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0378 - accuracy: 0.9601  
Epoch 2890/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0371 - accuracy: 0.9597  
Epoch 2891/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0377 - accuracy: 0.9594  
Epoch 2892/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0372 - accuracy: 0.9589  
Epoch 2893/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0371 - accuracy: 0.9602  
Epoch 2894/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0373 - accuracy: 0.9609  
Epoch 2895/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0372 - accuracy: 0.9587  
Epoch 2896/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0371 - accuracy:  
0.9590  
Epoch 2897/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0379 - accuracy:  
0.9593  
Epoch 2898/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0369 - accuracy:  
0.9586  
Epoch 2899/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0369 - accuracy:  
0.9598  
Epoch 2900/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0368 - accuracy:  
0.9594  
Epoch 2901/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0372 - accuracy:  
0.9591  
Epoch 2902/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0374 - accuracy:  
0.9592  
Epoch 2903/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0380 - accuracy:  
0.9595  
Epoch 2904/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0376 - accuracy:  
0.9598  
Epoch 2905/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0375 - accuracy:  
0.9591  
Epoch 2906/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0375 - accuracy:  
0.9588  
Epoch 2907/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0372 - accuracy:  
0.9584  
Epoch 2908/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0372 - accuracy:  
0.9595  
Epoch 2909/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0374 - accuracy:  
0.9596  
Epoch 2910/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0369 - accuracy:  
0.9592  
Epoch 2911/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0372 - accuracy:  
0.9591  
Epoch 2912/100000

2/2 [=====] - 0s 125ms/step - loss: 0.0371 - accuracy: 0.9595  
Epoch 2913/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0374 - accuracy: 0.9590  
Epoch 2914/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0370 - accuracy: 0.9592  
Epoch 2915/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0368 - accuracy: 0.9594  
Epoch 2916/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0373 - accuracy: 0.9592  
Epoch 2917/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0370 - accuracy: 0.9599  
Epoch 2918/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0370 - accuracy: 0.9593  
Epoch 2919/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0369 - accuracy: 0.9590  
Epoch 2920/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0374 - accuracy: 0.9601  
Epoch 2921/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0370 - accuracy: 0.9590  
Epoch 2922/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0375 - accuracy: 0.9586  
Epoch 2923/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0379 - accuracy: 0.9595  
Epoch 2924/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0375 - accuracy: 0.9594  
Epoch 2925/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0377 - accuracy: 0.9595  
Epoch 2926/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0391 - accuracy: 0.9605  
Epoch 2927/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0392 - accuracy: 0.9590  
Epoch 2928/100000

2/2 [=====] - 0s 119ms/step - loss: 0.0378 - accuracy:  
0.9596  
Epoch 2929/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0376 - accuracy:  
0.9590  
Epoch 2930/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0374 - accuracy:  
0.9590  
Epoch 2931/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0377 - accuracy:  
0.9600  
Epoch 2932/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0374 - accuracy:  
0.9593  
Epoch 2933/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0376 - accuracy:  
0.9598  
Epoch 2934/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0374 - accuracy:  
0.9598  
Epoch 2935/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0373 - accuracy:  
0.9600  
Epoch 2936/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0375 - accuracy:  
0.9590  
Epoch 2937/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0376 - accuracy:  
0.9599  
Epoch 2938/100000  
2/2 [=====] - 0s 128ms/step - loss: 0.0376 - accuracy:  
0.9592  
Epoch 2939/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0372 - accuracy:  
0.9602  
Epoch 2940/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0368 - accuracy:  
0.9588  
Epoch 2941/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0372 - accuracy:  
0.9597  
Epoch 2942/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0372 - accuracy:  
0.9600  
Epoch 2943/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0378 - accuracy:  
0.9597  
Epoch 2944/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0380 - accuracy: 0.9600  
 Epoch 2945/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0370 - accuracy: 0.9593  
 Epoch 2946/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0373 - accuracy: 0.9595  
 Epoch 2947/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0373 - accuracy: 0.9594  
 Epoch 2948/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0369 - accuracy: 0.9590  
 Epoch 2949/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0370 - accuracy: 0.9595  
 Epoch 2950/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0372 - accuracy: 0.9594  
 Epoch 2951/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0372 - accuracy: 0.9591  
 Epoch 2952/100000  
 2/2 [=====] - 0s 120ms/step - loss: 0.0372 - accuracy: 0.9588  
 Epoch 2953/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0371 - accuracy: 0.9589  
 Epoch 2954/100000  
 2/2 [=====] - 0s 120ms/step - loss: 0.0372 - accuracy: 0.9593  
 Epoch 2955/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0371 - accuracy: 0.9593  
 Epoch 2956/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0369 - accuracy: 0.9598  
 Epoch 2957/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0370 - accuracy: 0.9604  
 Epoch 2958/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0377 - accuracy: 0.9600  
 Epoch 2959/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0371 - accuracy: 0.9593  
 Epoch 2960/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0377 - accuracy:  
0.9599  
Epoch 2961/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0367 - accuracy:  
0.9586  
Epoch 2962/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0376 - accuracy:  
0.9592  
Epoch 2963/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0372 - accuracy:  
0.9589  
Epoch 2964/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0367 - accuracy:  
0.9596  
Epoch 2965/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0369 - accuracy:  
0.9597  
Epoch 2966/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0370 - accuracy:  
0.9597  
Epoch 2967/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0375 - accuracy:  
0.9600  
Epoch 2968/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0374 - accuracy:  
0.9593  
Epoch 2969/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0369 - accuracy:  
0.9603  
Epoch 2970/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0373 - accuracy:  
0.9591  
Epoch 2971/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0376 - accuracy:  
0.9588  
Epoch 2972/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0373 - accuracy:  
0.9586  
Epoch 2973/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0377 - accuracy:  
0.9599  
Epoch 2974/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0380 - accuracy:  
0.9589  
Epoch 2975/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0377 - accuracy:  
0.9600  
Epoch 2976/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0372 - accuracy:  
0.9592  
Epoch 2977/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0375 - accuracy:  
0.9584  
Epoch 2978/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0374 - accuracy:  
0.9607  
Epoch 2979/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0378 - accuracy:  
0.9596  
Epoch 2980/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0380 - accuracy:  
0.9595  
Epoch 2981/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0370 - accuracy:  
0.9596  
Epoch 2982/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0369 - accuracy:  
0.9589  
Epoch 2983/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0374 - accuracy:  
0.9594  
Epoch 2984/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0376 - accuracy:  
0.9592  
Epoch 2985/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0379 - accuracy:  
0.9601  
Epoch 2986/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0373 - accuracy:  
0.9598  
Epoch 2987/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0382 - accuracy:  
0.9595  
Epoch 2988/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0384 - accuracy:  
0.9599  
Epoch 2989/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0384 - accuracy:  
0.9608  
Epoch 2990/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0378 - accuracy:  
0.9593  
Epoch 2991/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0374 - accuracy:  
0.9593  
Epoch 2992/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0379 - accuracy:  
0.9598  
Epoch 2993/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0372 - accuracy:  
0.9597  
Epoch 2994/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0370 - accuracy:  
0.9592  
Epoch 2995/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0369 - accuracy:  
0.9595  
Epoch 2996/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0368 - accuracy:  
0.9603  
Epoch 2997/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0372 - accuracy:  
0.9589  
Epoch 2998/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0381 - accuracy:  
0.9589  
Epoch 2999/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0374 - accuracy:  
0.9597  
Epoch 3000/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0378 - accuracy:  
0.9587  
Epoch 3001/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0373 - accuracy:  
0.9581  
Epoch 3002/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0370 - accuracy:  
0.9595  
Epoch 3003/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0381 - accuracy:  
0.9595  
Epoch 3004/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0376 - accuracy:  
0.9595  
Epoch 3005/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0372 - accuracy:  
0.9592  
Epoch 3006/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0368 - accuracy:  
0.9588  
Epoch 3007/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0370 - accuracy:  
0.9597  
Epoch 3008/100000



2/2 [=====] - 0s 113ms/step - loss: 0.0379 - accuracy:  
0.9595  
Epoch 3009/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0373 - accuracy:  
0.9593  
Epoch 3010/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0368 - accuracy:  
0.9594  
Epoch 3011/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0370 - accuracy:  
0.9593  
Epoch 3012/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0371 - accuracy:  
0.9599  
Epoch 3013/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0374 - accuracy:  
0.9598  
Epoch 3014/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0374 - accuracy:  
0.9591  
Epoch 3015/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0375 - accuracy:  
0.9588  
Epoch 3016/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0367 - accuracy:  
0.9586  
Epoch 3017/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0371 - accuracy:  
0.9601  
Epoch 3018/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0368 - accuracy:  
0.9592  
Epoch 3019/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0377 - accuracy:  
0.9597  
Epoch 3020/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0371 - accuracy:  
0.9593  
Epoch 3021/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0372 - accuracy:  
0.9601  
Epoch 3022/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0379 - accuracy:  
0.9593  
Epoch 3023/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0373 - accuracy:  
0.9594  
Epoch 3024/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0366 - accuracy:  
0.9593  
Epoch 3025/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0374 - accuracy:  
0.9589  
Epoch 3026/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0376 - accuracy:  
0.9594  
Epoch 3027/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0365 - accuracy:  
0.9592  
Epoch 3028/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0374 - accuracy:  
0.9595  
Epoch 3029/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0382 - accuracy:  
0.9605  
Epoch 3030/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0374 - accuracy:  
0.9593  
Epoch 3031/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0376 - accuracy:  
0.9594  
Epoch 3032/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0378 - accuracy:  
0.9586  
Epoch 3033/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0372 - accuracy:  
0.9592  
Epoch 3034/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0378 - accuracy:  
0.9590  
Epoch 3035/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0374 - accuracy:  
0.9591  
Epoch 3036/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0368 - accuracy:  
0.9593  
Epoch 3037/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0375 - accuracy:  
0.9594  
Epoch 3038/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0369 - accuracy:  
0.9593  
Epoch 3039/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0375 - accuracy:  
0.9604  
Epoch 3040/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0370 - accuracy:  
0.9589  
Epoch 3041/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0372 - accuracy:  
0.9597  
Epoch 3042/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0368 - accuracy:  
0.9598  
Epoch 3043/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0373 - accuracy:  
0.9592  
Epoch 3044/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0368 - accuracy:  
0.9585  
Epoch 3045/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0367 - accuracy:  
0.9590  
Epoch 3046/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0374 - accuracy:  
0.9588  
Epoch 3047/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0380 - accuracy:  
0.9589  
Epoch 3048/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0375 - accuracy:  
0.9592  
Epoch 3049/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0369 - accuracy:  
0.9594  
Epoch 3050/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0380 - accuracy:  
0.9598  
Epoch 3051/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0371 - accuracy:  
0.9599  
Epoch 3052/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0373 - accuracy:  
0.9595  
Epoch 3053/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0372 - accuracy:  
0.9603  
Epoch 3054/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0370 - accuracy:  
0.9602  
Epoch 3055/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0372 - accuracy:  
0.9598  
Epoch 3056/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0366 - accuracy:  
0.9593  
Epoch 3057/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0371 - accuracy:  
0.9601  
Epoch 3058/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0370 - accuracy:  
0.9586  
Epoch 3059/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0369 - accuracy:  
0.9598  
Epoch 3060/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0371 - accuracy:  
0.9590  
Epoch 3061/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0373 - accuracy:  
0.9589  
Epoch 3062/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0372 - accuracy:  
0.9599  
Epoch 3063/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0388 - accuracy:  
0.9597  
Epoch 3064/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0377 - accuracy:  
0.9605  
Epoch 3065/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0365 - accuracy:  
0.9600  
Epoch 3066/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0368 - accuracy:  
0.9595  
Epoch 3067/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0374 - accuracy:  
0.9591  
Epoch 3068/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0367 - accuracy:  
0.9581  
Epoch 3069/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0372 - accuracy:  
0.9598  
Epoch 3070/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0373 - accuracy:  
0.9601  
Epoch 3071/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0374 - accuracy:  
0.9600  
Epoch 3072/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0373 - accuracy:  
0.9587  
Epoch 3073/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0372 - accuracy:  
0.9594  
Epoch 3074/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0368 - accuracy:  
0.9594  
Epoch 3075/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0372 - accuracy:  
0.9584  
Epoch 3076/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0371 - accuracy:  
0.9604  
Epoch 3077/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0385 - accuracy:  
0.9602  
Epoch 3078/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0372 - accuracy:  
0.9601  
Epoch 3079/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0367 - accuracy:  
0.9596  
Epoch 3080/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0364 - accuracy:  
0.9582  
Epoch 3081/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0375 - accuracy:  
0.9593  
Epoch 3082/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0370 - accuracy:  
0.9589  
Epoch 3083/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0372 - accuracy:  
0.9602  
Epoch 3084/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0370 - accuracy:  
0.9590  
Epoch 3085/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0367 - accuracy:  
0.9589  
Epoch 3086/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0371 - accuracy:  
0.9594  
Epoch 3087/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0366 - accuracy:  
0.9592  
Epoch 3088/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0366 - accuracy:  
0.9600  
Epoch 3089/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0371 - accuracy:  
0.9589  
Epoch 3090/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0383 - accuracy:  
0.9594  
Epoch 3091/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0373 - accuracy:  
0.9603  
Epoch 3092/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0374 - accuracy:  
0.9589  
Epoch 3093/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0377 - accuracy:  
0.9587  
Epoch 3094/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0375 - accuracy:  
0.9593  
Epoch 3095/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0371 - accuracy:  
0.9597  
Epoch 3096/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0374 - accuracy:  
0.9591  
Epoch 3097/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0373 - accuracy:  
0.9605  
Epoch 3098/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0382 - accuracy:  
0.9599  
Epoch 3099/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0373 - accuracy:  
0.9595  
Epoch 3100/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0369 - accuracy:  
0.9590  
Epoch 3101/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0368 - accuracy:  
0.9590  
Epoch 3102/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0369 - accuracy:  
0.9606  
Epoch 3103/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0390 - accuracy:  
0.9599  
Epoch 3104/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0374 - accuracy:  
0.9588  
Epoch 3105/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0399 - accuracy:  
0.9601  
Epoch 3106/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0381 - accuracy:  
0.9598  
Epoch 3107/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0373 - accuracy:  
0.9597  
Epoch 3108/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0388 - accuracy:  
0.9594  
Epoch 3109/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0379 - accuracy:  
0.9592  
Epoch 3110/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0382 - accuracy:  
0.9598  
Epoch 3111/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0377 - accuracy:  
0.9601  
Epoch 3112/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0375 - accuracy:  
0.9603  
Epoch 3113/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0370 - accuracy:  
0.9609  
Epoch 3114/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0372 - accuracy:  
0.9590  
Epoch 3115/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0370 - accuracy:  
0.9598  
Epoch 3116/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0370 - accuracy:  
0.9596  
Epoch 3117/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0372 - accuracy:  
0.9602  
Epoch 3118/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0366 - accuracy:  
0.9593  
Epoch 3119/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0364 - accuracy:  
0.9594  
Epoch 3120/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0368 - accuracy:  
0.9593  
Epoch 3121/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0372 - accuracy:  
0.9598  
Epoch 3122/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0369 - accuracy:  
0.9591  
Epoch 3123/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0368 - accuracy:  
0.9589  
Epoch 3124/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0372 - accuracy:  
0.9594  
Epoch 3125/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0371 - accuracy:  
0.9599  
Epoch 3126/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0379 - accuracy:  
0.9603  
Epoch 3127/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0377 - accuracy:  
0.9602  
Epoch 3128/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0368 - accuracy:  
0.9587  
Epoch 3129/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0376 - accuracy:  
0.9599  
Epoch 3130/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0374 - accuracy:  
0.9604  
Epoch 3131/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0381 - accuracy:  
0.9605  
Epoch 3132/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0385 - accuracy:  
0.9601  
Epoch 3133/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0388 - accuracy:  
0.9593  
Epoch 3134/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0374 - accuracy:  
0.9601  
Epoch 3135/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0379 - accuracy:  
0.9595  
Epoch 3136/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0379 - accuracy:  
0.9597  
Epoch 3137/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0382 - accuracy:  
0.9592  
Epoch 3138/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0371 - accuracy:  
0.9599  
Epoch 3139/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0371 - accuracy:  
0.9594  
Epoch 3140/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0379 - accuracy:  
0.9593  
Epoch 3141/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0374 - accuracy:  
0.9602  
Epoch 3142/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0374 - accuracy:  
0.9598  
Epoch 3143/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0369 - accuracy:  
0.9591  
Epoch 3144/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0373 - accuracy:  
0.9598  
Epoch 3145/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0371 - accuracy:  
0.9602  
Epoch 3146/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0379 - accuracy:  
0.9601  
Epoch 3147/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0380 - accuracy:  
0.9601  
Epoch 3148/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0375 - accuracy:  
0.9595  
Epoch 3149/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0379 - accuracy:  
0.9584  
Epoch 3150/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0392 - accuracy:  
0.9577  
Epoch 3151/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0372 - accuracy:  
0.9591  
Epoch 3152/100000

2/2 [=====] - 0s 113ms/step - loss: 0.0373 - accuracy:  
0.9600  
Epoch 3153/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0370 - accuracy:  
0.9591  
Epoch 3154/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0370 - accuracy:  
0.9593  
Epoch 3155/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0372 - accuracy:  
0.9587  
Epoch 3156/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0378 - accuracy:  
0.9606  
Epoch 3157/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0371 - accuracy:  
0.9595  
Epoch 3158/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0371 - accuracy:  
0.9604  
Epoch 3159/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0369 - accuracy:  
0.9603  
Epoch 3160/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0377 - accuracy:  
0.9597  
Epoch 3161/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0378 - accuracy:  
0.9605  
Epoch 3162/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0371 - accuracy:  
0.9597  
Epoch 3163/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0369 - accuracy:  
0.9594  
Epoch 3164/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0372 - accuracy:  
0.9601  
Epoch 3165/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0371 - accuracy:  
0.9606  
Epoch 3166/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0369 - accuracy:  
0.9597  
Epoch 3167/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0380 - accuracy:  
0.9595  
Epoch 3168/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0375 - accuracy:  
0.9590  
Epoch 3169/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0369 - accuracy:  
0.9597  
Epoch 3170/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0379 - accuracy:  
0.9587  
Epoch 3171/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0380 - accuracy:  
0.9598  
Epoch 3172/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0373 - accuracy:  
0.9584  
Epoch 3173/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0383 - accuracy:  
0.9603  
Epoch 3174/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0382 - accuracy:  
0.9588  
Epoch 3175/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0374 - accuracy:  
0.9610  
Epoch 3176/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0376 - accuracy:  
0.9600  
Epoch 3177/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0367 - accuracy:  
0.9603  
Epoch 3178/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0368 - accuracy:  
0.9599  
Epoch 3179/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0370 - accuracy:  
0.9588  
Epoch 3180/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0369 - accuracy:  
0.9602  
Epoch 3181/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0374 - accuracy:  
0.9599  
Epoch 3182/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0368 - accuracy:  
0.9594  
Epoch 3183/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0368 - accuracy:  
0.9597  
Epoch 3184/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0373 - accuracy:  
0.9604  
Epoch 3185/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0365 - accuracy:  
0.9595  
Epoch 3186/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0366 - accuracy:  
0.9593  
Epoch 3187/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0366 - accuracy:  
0.9595  
Epoch 3188/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0364 - accuracy:  
0.9593  
Epoch 3189/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0365 - accuracy:  
0.9603  
Epoch 3190/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0366 - accuracy:  
0.9589  
Epoch 3191/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0369 - accuracy:  
0.9593  
Epoch 3192/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0370 - accuracy:  
0.9587  
Epoch 3193/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0367 - accuracy:  
0.9594  
Epoch 3194/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0365 - accuracy:  
0.9592  
Epoch 3195/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0368 - accuracy:  
0.9595  
Epoch 3196/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0367 - accuracy:  
0.9598  
Epoch 3197/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0371 - accuracy:  
0.9589  
Epoch 3198/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0366 - accuracy:  
0.9590  
Epoch 3199/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0365 - accuracy:  
0.9599  
Epoch 3200/100000

2/2 [=====] - 0s 120ms/step - loss: 0.0365 - accuracy: 0.9591  
 Epoch 3201/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0367 - accuracy: 0.9590  
 Epoch 3202/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0371 - accuracy: 0.9597  
 Epoch 3203/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0375 - accuracy: 0.9601  
 Epoch 3204/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0366 - accuracy: 0.9591  
 Epoch 3205/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0376 - accuracy: 0.9600  
 Epoch 3206/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0370 - accuracy: 0.9598  
 Epoch 3207/100000  
 2/2 [=====] - 0s 113ms/step - loss: 0.0373 - accuracy: 0.9588  
 Epoch 3208/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0369 - accuracy: 0.9596  
 Epoch 3209/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0376 - accuracy: 0.9587  
 Epoch 3210/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0379 - accuracy: 0.9588  
 Epoch 3211/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0378 - accuracy: 0.9595  
 Epoch 3212/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0366 - accuracy: 0.9582  
 Epoch 3213/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0384 - accuracy: 0.9592  
 Epoch 3214/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0372 - accuracy: 0.9592  
 Epoch 3215/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0367 - accuracy: 0.9591  
 Epoch 3216/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0369 - accuracy:  
0.9593  
Epoch 3217/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0372 - accuracy:  
0.9596  
Epoch 3218/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0375 - accuracy:  
0.9595  
Epoch 3219/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0373 - accuracy:  
0.9601  
Epoch 3220/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0386 - accuracy:  
0.9601  
Epoch 3221/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0385 - accuracy:  
0.9598  
Epoch 3222/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0373 - accuracy:  
0.9605  
Epoch 3223/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0370 - accuracy:  
0.9591  
Epoch 3224/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0370 - accuracy:  
0.9589  
Epoch 3225/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0368 - accuracy:  
0.9587  
Epoch 3226/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0372 - accuracy:  
0.9597  
Epoch 3227/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0370 - accuracy:  
0.9598  
Epoch 3228/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0377 - accuracy:  
0.9586  
Epoch 3229/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0395 - accuracy:  
0.9589  
Epoch 3230/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0372 - accuracy:  
0.9584  
Epoch 3231/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0377 - accuracy:  
0.9594  
Epoch 3232/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0379 - accuracy: 0.9587  
 Epoch 3233/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0374 - accuracy: 0.9593  
 Epoch 3234/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0406 - accuracy: 0.9590  
 Epoch 3235/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0390 - accuracy: 0.9586  
 Epoch 3236/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0383 - accuracy: 0.9592  
 Epoch 3237/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0377 - accuracy: 0.9592  
 Epoch 3238/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0377 - accuracy: 0.9591  
 Epoch 3239/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0376 - accuracy: 0.9594  
 Epoch 3240/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0375 - accuracy: 0.9587  
 Epoch 3241/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0371 - accuracy: 0.9586  
 Epoch 3242/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0373 - accuracy: 0.9597  
 Epoch 3243/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0368 - accuracy: 0.9595  
 Epoch 3244/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0373 - accuracy: 0.9590  
 Epoch 3245/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0368 - accuracy: 0.9596  
 Epoch 3246/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0367 - accuracy: 0.9603  
 Epoch 3247/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0371 - accuracy: 0.9599  
 Epoch 3248/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0367 - accuracy:  
0.9588  
Epoch 3249/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0366 - accuracy:  
0.9590  
Epoch 3250/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0367 - accuracy:  
0.9594  
Epoch 3251/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0366 - accuracy:  
0.9596  
Epoch 3252/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0364 - accuracy:  
0.9594  
Epoch 3253/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0372 - accuracy:  
0.9607  
Epoch 3254/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0372 - accuracy:  
0.9605  
Epoch 3255/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0373 - accuracy:  
0.9595  
Epoch 3256/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0368 - accuracy:  
0.9591  
Epoch 3257/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0377 - accuracy:  
0.9592  
Epoch 3258/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0374 - accuracy:  
0.9605  
Epoch 3259/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0367 - accuracy:  
0.9599  
Epoch 3260/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0366 - accuracy:  
0.9602  
Epoch 3261/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0365 - accuracy:  
0.9603  
Epoch 3262/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0368 - accuracy:  
0.9600  
Epoch 3263/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0366 - accuracy:  
0.9594  
Epoch 3264/100000



2/2 [=====] - 0s 114ms/step - loss: 0.0361 - accuracy:  
0.9592  
Epoch 3265/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0367 - accuracy:  
0.9593  
Epoch 3266/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0368 - accuracy:  
0.9601  
Epoch 3267/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0367 - accuracy:  
0.9591  
Epoch 3268/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0363 - accuracy:  
0.9601  
Epoch 3269/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0367 - accuracy:  
0.9595  
Epoch 3270/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0370 - accuracy:  
0.9593  
Epoch 3271/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0365 - accuracy:  
0.9593  
Epoch 3272/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0371 - accuracy:  
0.9585  
Epoch 3273/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0365 - accuracy:  
0.9598  
Epoch 3274/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0367 - accuracy:  
0.9579  
Epoch 3275/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0373 - accuracy:  
0.9590  
Epoch 3276/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0367 - accuracy:  
0.9588  
Epoch 3277/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0369 - accuracy:  
0.9596  
Epoch 3278/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0373 - accuracy:  
0.9585  
Epoch 3279/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0368 - accuracy:  
0.9592  
Epoch 3280/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0366 - accuracy:  
0.9594  
Epoch 3281/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0364 - accuracy:  
0.9593  
Epoch 3282/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0366 - accuracy:  
0.9593  
Epoch 3283/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0364 - accuracy:  
0.9594  
Epoch 3284/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0371 - accuracy:  
0.9613  
Epoch 3285/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0370 - accuracy:  
0.9600  
Epoch 3286/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0369 - accuracy:  
0.9603  
Epoch 3287/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0362 - accuracy:  
0.9592  
Epoch 3288/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0372 - accuracy:  
0.9602  
Epoch 3289/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0364 - accuracy:  
0.9591  
Epoch 3290/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0372 - accuracy:  
0.9595  
Epoch 3291/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0372 - accuracy:  
0.9595  
Epoch 3292/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0373 - accuracy:  
0.9592  
Epoch 3293/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0365 - accuracy:  
0.9590  
Epoch 3294/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0370 - accuracy:  
0.9592  
Epoch 3295/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0371 - accuracy:  
0.9595  
Epoch 3296/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0380 - accuracy: 0.9600  
 Epoch 3297/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0376 - accuracy: 0.9600  
 Epoch 3298/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0370 - accuracy: 0.9596  
 Epoch 3299/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0374 - accuracy: 0.9598  
 Epoch 3300/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0370 - accuracy: 0.9599  
 Epoch 3301/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0380 - accuracy: 0.9593  
 Epoch 3302/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0370 - accuracy: 0.9596  
 Epoch 3303/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0371 - accuracy: 0.9593  
 Epoch 3304/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0374 - accuracy: 0.9601  
 Epoch 3305/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0381 - accuracy: 0.9588  
 Epoch 3306/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0367 - accuracy: 0.9585  
 Epoch 3307/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0366 - accuracy: 0.9592  
 Epoch 3308/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0371 - accuracy: 0.9589  
 Epoch 3309/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0367 - accuracy: 0.9599  
 Epoch 3310/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0365 - accuracy: 0.9592  
 Epoch 3311/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0369 - accuracy: 0.9594  
 Epoch 3312/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0375 - accuracy: 0.9588  
 Epoch 3313/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0372 - accuracy: 0.9593  
 Epoch 3314/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0369 - accuracy: 0.9592  
 Epoch 3315/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0373 - accuracy: 0.9593  
 Epoch 3316/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0374 - accuracy: 0.9597  
 Epoch 3317/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0372 - accuracy: 0.9601  
 Epoch 3318/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0367 - accuracy: 0.9593  
 Epoch 3319/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0366 - accuracy: 0.9598  
 Epoch 3320/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0367 - accuracy: 0.9592  
 Epoch 3321/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0369 - accuracy: 0.9591  
 Epoch 3322/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0370 - accuracy: 0.9592  
 Epoch 3323/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0364 - accuracy: 0.9597  
 Epoch 3324/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0369 - accuracy: 0.9593  
 Epoch 3325/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0366 - accuracy: 0.9587  
 Epoch 3326/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0368 - accuracy: 0.9604  
 Epoch 3327/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0366 - accuracy: 0.9593  
 Epoch 3328/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0365 - accuracy: 0.9593  
 Epoch 3329/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0364 - accuracy: 0.9595  
 Epoch 3330/100000  
 2/2 [=====] - 0s 121ms/step - loss: 0.0362 - accuracy: 0.9593  
 Epoch 3331/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0364 - accuracy: 0.9596  
 Epoch 3332/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0365 - accuracy: 0.9595  
 Epoch 3333/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0370 - accuracy: 0.9598  
 Epoch 3334/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0368 - accuracy: 0.9600  
 Epoch 3335/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0363 - accuracy: 0.9594  
 Epoch 3336/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0370 - accuracy: 0.9606  
 Epoch 3337/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0370 - accuracy: 0.9591  
 Epoch 3338/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0366 - accuracy: 0.9592  
 Epoch 3339/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0368 - accuracy: 0.9593  
 Epoch 3340/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0381 - accuracy: 0.9587  
 Epoch 3341/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0366 - accuracy: 0.9596  
 Epoch 3342/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0374 - accuracy: 0.9590  
 Epoch 3343/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0381 - accuracy: 0.9600  
 Epoch 3344/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0368 - accuracy: 0.9589  
Epoch 3345/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0365 - accuracy: 0.9593  
Epoch 3346/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0363 - accuracy: 0.9596  
Epoch 3347/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0361 - accuracy: 0.9586  
Epoch 3348/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0382 - accuracy: 0.9580  
Epoch 3349/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0369 - accuracy: 0.9590  
Epoch 3350/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0375 - accuracy: 0.9590  
Epoch 3351/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0372 - accuracy: 0.9598  
Epoch 3352/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0368 - accuracy: 0.9590  
Epoch 3353/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0371 - accuracy: 0.9591  
Epoch 3354/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0376 - accuracy: 0.9598  
Epoch 3355/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0378 - accuracy: 0.9600  
Epoch 3356/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0371 - accuracy: 0.9599  
Epoch 3357/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0365 - accuracy: 0.9595  
Epoch 3358/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0373 - accuracy: 0.9607  
Epoch 3359/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0365 - accuracy: 0.9589  
Epoch 3360/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0364 - accuracy: 0.9589  
Epoch 3361/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0369 - accuracy: 0.9608  
Epoch 3362/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0363 - accuracy: 0.9599  
Epoch 3363/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0363 - accuracy: 0.9584  
Epoch 3364/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0367 - accuracy: 0.9596  
Epoch 3365/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0363 - accuracy: 0.9591  
Epoch 3366/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0363 - accuracy: 0.9596  
Epoch 3367/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0366 - accuracy: 0.9592  
Epoch 3368/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0362 - accuracy: 0.9588  
Epoch 3369/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0362 - accuracy: 0.9591  
Epoch 3370/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0371 - accuracy: 0.9596  
Epoch 3371/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0366 - accuracy: 0.9586  
Epoch 3372/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0368 - accuracy: 0.9600  
Epoch 3373/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0363 - accuracy: 0.9590  
Epoch 3374/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0366 - accuracy: 0.9597  
Epoch 3375/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0369 - accuracy: 0.9588  
Epoch 3376/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0362 - accuracy:  
0.9593  
Epoch 3377/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0367 - accuracy:  
0.9606  
Epoch 3378/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0366 - accuracy:  
0.9596  
Epoch 3379/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0371 - accuracy:  
0.9592  
Epoch 3380/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0361 - accuracy:  
0.9599  
Epoch 3381/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0365 - accuracy:  
0.9594  
Epoch 3382/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0363 - accuracy:  
0.9587  
Epoch 3383/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0363 - accuracy:  
0.9601  
Epoch 3384/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0369 - accuracy:  
0.9600  
Epoch 3385/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0368 - accuracy:  
0.9598  
Epoch 3386/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0366 - accuracy:  
0.9591  
Epoch 3387/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0363 - accuracy:  
0.9593  
Epoch 3388/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0368 - accuracy:  
0.9602  
Epoch 3389/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0364 - accuracy:  
0.9598  
Epoch 3390/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0371 - accuracy:  
0.9598  
Epoch 3391/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0365 - accuracy:  
0.9595  
Epoch 3392/100000



2/2 [=====] - 0s 116ms/step - loss: 0.0373 - accuracy:  
0.9601  
Epoch 3393/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0368 - accuracy:  
0.9599  
Epoch 3394/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0361 - accuracy:  
0.9602  
Epoch 3395/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0368 - accuracy:  
0.9583  
Epoch 3396/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0369 - accuracy:  
0.9599  
Epoch 3397/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0372 - accuracy:  
0.9596  
Epoch 3398/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0366 - accuracy:  
0.9595  
Epoch 3399/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0364 - accuracy:  
0.9589  
Epoch 3400/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0366 - accuracy:  
0.9598  
Epoch 3401/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0361 - accuracy:  
0.9593  
Epoch 3402/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0359 - accuracy:  
0.9591  
Epoch 3403/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0372 - accuracy:  
0.9601  
Epoch 3404/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0364 - accuracy:  
0.9601  
Epoch 3405/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0364 - accuracy:  
0.9596  
Epoch 3406/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0370 - accuracy:  
0.9588  
Epoch 3407/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0364 - accuracy:  
0.9597  
Epoch 3408/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0365 - accuracy: 0.9592  
Epoch 3409/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0383 - accuracy: 0.9599  
Epoch 3410/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0387 - accuracy: 0.9594  
Epoch 3411/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0372 - accuracy: 0.9593  
Epoch 3412/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0378 - accuracy: 0.9592  
Epoch 3413/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0376 - accuracy: 0.9589  
Epoch 3414/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0374 - accuracy: 0.9605  
Epoch 3415/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0363 - accuracy: 0.9594  
Epoch 3416/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0368 - accuracy: 0.9593  
Epoch 3417/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0366 - accuracy: 0.9585  
Epoch 3418/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0378 - accuracy: 0.9592  
Epoch 3419/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0376 - accuracy: 0.9605  
Epoch 3420/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0382 - accuracy: 0.9594  
Epoch 3421/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0395 - accuracy: 0.9599  
Epoch 3422/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0393 - accuracy: 0.9590  
Epoch 3423/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0373 - accuracy: 0.9603  
Epoch 3424/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0370 - accuracy: 0.9594  
 Epoch 3425/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0372 - accuracy: 0.9597  
 Epoch 3426/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0376 - accuracy: 0.9596  
 Epoch 3427/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0369 - accuracy: 0.9598  
 Epoch 3428/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0366 - accuracy: 0.9596  
 Epoch 3429/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0370 - accuracy: 0.9601  
 Epoch 3430/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0366 - accuracy: 0.9603  
 Epoch 3431/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0365 - accuracy: 0.9595  
 Epoch 3432/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0375 - accuracy: 0.9600  
 Epoch 3433/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0369 - accuracy: 0.9606  
 Epoch 3434/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0363 - accuracy: 0.9598  
 Epoch 3435/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0373 - accuracy: 0.9603  
 Epoch 3436/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0361 - accuracy: 0.9598  
 Epoch 3437/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0364 - accuracy: 0.9586  
 Epoch 3438/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0363 - accuracy: 0.9596  
 Epoch 3439/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0368 - accuracy: 0.9595  
 Epoch 3440/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0368 - accuracy:  
0.9605  
Epoch 3441/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0371 - accuracy:  
0.9599  
Epoch 3442/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0368 - accuracy:  
0.9599  
Epoch 3443/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0373 - accuracy:  
0.9608  
Epoch 3444/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0367 - accuracy:  
0.9608  
Epoch 3445/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0370 - accuracy:  
0.9590  
Epoch 3446/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0370 - accuracy:  
0.9597  
Epoch 3447/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0364 - accuracy:  
0.9592  
Epoch 3448/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0359 - accuracy:  
0.9593  
Epoch 3449/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0362 - accuracy:  
0.9597  
Epoch 3450/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0359 - accuracy:  
0.9600  
Epoch 3451/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0365 - accuracy:  
0.9587  
Epoch 3452/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0355 - accuracy:  
0.9591  
Epoch 3453/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0365 - accuracy:  
0.9597  
Epoch 3454/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0362 - accuracy:  
0.9594  
Epoch 3455/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0359 - accuracy:  
0.9593  
Epoch 3456/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0364 - accuracy:  
0.9593  
Epoch 3457/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0365 - accuracy:  
0.9591  
Epoch 3458/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0357 - accuracy:  
0.9594  
Epoch 3459/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0365 - accuracy:  
0.9601  
Epoch 3460/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0367 - accuracy:  
0.9601  
Epoch 3461/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0365 - accuracy:  
0.9596  
Epoch 3462/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0366 - accuracy:  
0.9595  
Epoch 3463/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0362 - accuracy:  
0.9595  
Epoch 3464/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0365 - accuracy:  
0.9595  
Epoch 3465/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0360 - accuracy:  
0.9593  
Epoch 3466/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0362 - accuracy:  
0.9600  
Epoch 3467/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0369 - accuracy:  
0.9606  
Epoch 3468/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0371 - accuracy:  
0.9604  
Epoch 3469/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0374 - accuracy:  
0.9593  
Epoch 3470/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0369 - accuracy:  
0.9593  
Epoch 3471/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0372 - accuracy:  
0.9596  
Epoch 3472/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0373 - accuracy:  
0.9586  
Epoch 3473/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0364 - accuracy:  
0.9597  
Epoch 3474/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0360 - accuracy:  
0.9600  
Epoch 3475/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0366 - accuracy:  
0.9585  
Epoch 3476/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0370 - accuracy:  
0.9603  
Epoch 3477/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0372 - accuracy:  
0.9597  
Epoch 3478/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0368 - accuracy:  
0.9594  
Epoch 3479/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0373 - accuracy:  
0.9600  
Epoch 3480/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0385 - accuracy:  
0.9595  
Epoch 3481/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0374 - accuracy:  
0.9591  
Epoch 3482/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0370 - accuracy:  
0.9598  
Epoch 3483/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0379 - accuracy:  
0.9592  
Epoch 3484/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0382 - accuracy:  
0.9593  
Epoch 3485/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0364 - accuracy:  
0.9587  
Epoch 3486/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0364 - accuracy:  
0.9597  
Epoch 3487/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0363 - accuracy:  
0.9605  
Epoch 3488/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0376 - accuracy: 0.9595  
 Epoch 3489/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0369 - accuracy: 0.9590  
 Epoch 3490/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0375 - accuracy: 0.9584  
 Epoch 3491/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0374 - accuracy: 0.9600  
 Epoch 3492/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0367 - accuracy: 0.9604  
 Epoch 3493/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0377 - accuracy: 0.9600  
 Epoch 3494/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0368 - accuracy: 0.9595  
 Epoch 3495/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0368 - accuracy: 0.9597  
 Epoch 3496/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0368 - accuracy: 0.9602  
 Epoch 3497/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0372 - accuracy: 0.9597  
 Epoch 3498/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0373 - accuracy: 0.9592  
 Epoch 3499/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0366 - accuracy: 0.9594  
 Epoch 3500/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0367 - accuracy: 0.9580  
 Epoch 3501/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0369 - accuracy: 0.9597  
 Epoch 3502/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0370 - accuracy: 0.9593  
 Epoch 3503/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0367 - accuracy: 0.9592  
 Epoch 3504/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0365 - accuracy: 0.9599  
 Epoch 3505/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0365 - accuracy: 0.9594  
 Epoch 3506/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0372 - accuracy: 0.9597  
 Epoch 3507/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0367 - accuracy: 0.9604  
 Epoch 3508/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0369 - accuracy: 0.9603  
 Epoch 3509/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0363 - accuracy: 0.9588  
 Epoch 3510/100000  
 2/2 [=====] - 0s 113ms/step - loss: 0.0370 - accuracy: 0.9594  
 Epoch 3511/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0375 - accuracy: 0.9595  
 Epoch 3512/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0362 - accuracy: 0.9598  
 Epoch 3513/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0366 - accuracy: 0.9586  
 Epoch 3514/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0364 - accuracy: 0.9600  
 Epoch 3515/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0367 - accuracy: 0.9605  
 Epoch 3516/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0367 - accuracy: 0.9603  
 Epoch 3517/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0359 - accuracy: 0.9604  
 Epoch 3518/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0360 - accuracy: 0.9592  
 Epoch 3519/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0363 - accuracy: 0.9595  
 Epoch 3520/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0367 - accuracy:  
0.9593  
Epoch 3521/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0370 - accuracy:  
0.9605  
Epoch 3522/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0367 - accuracy:  
0.9596  
Epoch 3523/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0365 - accuracy:  
0.9594  
Epoch 3524/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0363 - accuracy:  
0.9584  
Epoch 3525/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0366 - accuracy:  
0.9594  
Epoch 3526/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0360 - accuracy:  
0.9587  
Epoch 3527/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0364 - accuracy:  
0.9593  
Epoch 3528/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0364 - accuracy:  
0.9593  
Epoch 3529/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0368 - accuracy:  
0.9589  
Epoch 3530/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0363 - accuracy:  
0.9596  
Epoch 3531/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0365 - accuracy:  
0.9592  
Epoch 3532/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0364 - accuracy:  
0.9600  
Epoch 3533/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0363 - accuracy:  
0.9591  
Epoch 3534/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0360 - accuracy:  
0.9591  
Epoch 3535/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0362 - accuracy:  
0.9594  
Epoch 3536/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0357 - accuracy:  
0.9593  
Epoch 3537/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0355 - accuracy:  
0.9581  
Epoch 3538/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0366 - accuracy:  
0.9599  
Epoch 3539/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0364 - accuracy:  
0.9597  
Epoch 3540/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0364 - accuracy:  
0.9597  
Epoch 3541/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0362 - accuracy:  
0.9587  
Epoch 3542/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0358 - accuracy:  
0.9593  
Epoch 3543/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0360 - accuracy:  
0.9597  
Epoch 3544/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0360 - accuracy:  
0.9597  
Epoch 3545/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0361 - accuracy:  
0.9600  
Epoch 3546/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0373 - accuracy:  
0.9602  
Epoch 3547/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0367 - accuracy:  
0.9600  
Epoch 3548/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0360 - accuracy:  
0.9591  
Epoch 3549/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0361 - accuracy:  
0.9604  
Epoch 3550/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0361 - accuracy:  
0.9597  
Epoch 3551/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0368 - accuracy:  
0.9593  
Epoch 3552/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0361 - accuracy:  
0.9601  
Epoch 3553/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0362 - accuracy:  
0.9590  
Epoch 3554/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0361 - accuracy:  
0.9589  
Epoch 3555/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0369 - accuracy:  
0.9605  
Epoch 3556/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0383 - accuracy:  
0.9599  
Epoch 3557/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0373 - accuracy:  
0.9598  
Epoch 3558/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0370 - accuracy:  
0.9594  
Epoch 3559/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0365 - accuracy:  
0.9589  
Epoch 3560/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0360 - accuracy:  
0.9598  
Epoch 3561/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0358 - accuracy:  
0.9586  
Epoch 3562/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0364 - accuracy:  
0.9594  
Epoch 3563/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0364 - accuracy:  
0.9589  
Epoch 3564/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0365 - accuracy:  
0.9591  
Epoch 3565/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0375 - accuracy:  
0.9592  
Epoch 3566/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0372 - accuracy:  
0.9601  
Epoch 3567/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0365 - accuracy:  
0.9594  
Epoch 3568/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0368 - accuracy: 0.9602  
Epoch 3569/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0380 - accuracy: 0.9598  
Epoch 3570/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0369 - accuracy: 0.9588  
Epoch 3571/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0367 - accuracy: 0.9589  
Epoch 3572/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0365 - accuracy: 0.9602  
Epoch 3573/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0368 - accuracy: 0.9590  
Epoch 3574/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0363 - accuracy: 0.9601  
Epoch 3575/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0363 - accuracy: 0.9596  
Epoch 3576/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0363 - accuracy: 0.9596  
Epoch 3577/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0366 - accuracy: 0.9592  
Epoch 3578/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0362 - accuracy: 0.9600  
Epoch 3579/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0365 - accuracy: 0.9595  
Epoch 3580/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0364 - accuracy: 0.9595  
Epoch 3581/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0368 - accuracy: 0.9595  
Epoch 3582/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0365 - accuracy: 0.9589  
Epoch 3583/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0371 - accuracy: 0.9585  
Epoch 3584/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0377 - accuracy:  
0.9589  
Epoch 3585/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0365 - accuracy:  
0.9593  
Epoch 3586/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0376 - accuracy:  
0.9597  
Epoch 3587/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0376 - accuracy:  
0.9593  
Epoch 3588/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0365 - accuracy:  
0.9585  
Epoch 3589/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0367 - accuracy:  
0.9600  
Epoch 3590/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0360 - accuracy:  
0.9592  
Epoch 3591/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0366 - accuracy:  
0.9594  
Epoch 3592/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0360 - accuracy:  
0.9592  
Epoch 3593/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0362 - accuracy:  
0.9602  
Epoch 3594/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0362 - accuracy:  
0.9592  
Epoch 3595/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0364 - accuracy:  
0.9601  
Epoch 3596/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0367 - accuracy:  
0.9606  
Epoch 3597/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0364 - accuracy:  
0.9593  
Epoch 3598/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0361 - accuracy:  
0.9582  
Epoch 3599/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0362 - accuracy:  
0.9598  
Epoch 3600/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0363 - accuracy: 0.9594  
 Epoch 3601/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0362 - accuracy: 0.9591  
 Epoch 3602/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0360 - accuracy: 0.9601  
 Epoch 3603/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0357 - accuracy: 0.9591  
 Epoch 3604/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0358 - accuracy: 0.9596  
 Epoch 3605/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0354 - accuracy: 0.9585  
 Epoch 3606/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0356 - accuracy: 0.9594  
 Epoch 3607/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0355 - accuracy: 0.9594  
 Epoch 3608/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0360 - accuracy: 0.9595  
 Epoch 3609/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0356 - accuracy: 0.9590  
 Epoch 3610/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0359 - accuracy: 0.9590  
 Epoch 3611/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0367 - accuracy: 0.9595  
 Epoch 3612/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0359 - accuracy: 0.9595  
 Epoch 3613/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0365 - accuracy: 0.9606  
 Epoch 3614/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0361 - accuracy: 0.9594  
 Epoch 3615/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0364 - accuracy: 0.9597  
 Epoch 3616/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0369 - accuracy: 0.9599  
 Epoch 3617/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0365 - accuracy: 0.9593  
 Epoch 3618/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0363 - accuracy: 0.9590  
 Epoch 3619/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0365 - accuracy: 0.9596  
 Epoch 3620/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0363 - accuracy: 0.9593  
 Epoch 3621/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0358 - accuracy: 0.9595  
 Epoch 3622/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0360 - accuracy: 0.9598  
 Epoch 3623/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0376 - accuracy: 0.9596  
 Epoch 3624/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0360 - accuracy: 0.9592  
 Epoch 3625/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0366 - accuracy: 0.9596  
 Epoch 3626/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0367 - accuracy: 0.9585  
 Epoch 3627/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0362 - accuracy: 0.9586  
 Epoch 3628/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0357 - accuracy: 0.9597  
 Epoch 3629/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0365 - accuracy: 0.9593  
 Epoch 3630/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0366 - accuracy: 0.9597  
 Epoch 3631/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0358 - accuracy: 0.9589  
 Epoch 3632/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0359 - accuracy: 0.9586  
Epoch 3633/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0372 - accuracy: 0.9593  
Epoch 3634/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0365 - accuracy: 0.9592  
Epoch 3635/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0365 - accuracy: 0.9599  
Epoch 3636/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0359 - accuracy: 0.9593  
Epoch 3637/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0369 - accuracy: 0.9594  
Epoch 3638/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0367 - accuracy: 0.9591  
Epoch 3639/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0364 - accuracy: 0.9592  
Epoch 3640/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0360 - accuracy: 0.9594  
Epoch 3641/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0361 - accuracy: 0.9592  
Epoch 3642/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0362 - accuracy: 0.9591  
Epoch 3643/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0364 - accuracy: 0.9598  
Epoch 3644/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0366 - accuracy: 0.9591  
Epoch 3645/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0365 - accuracy: 0.9586  
Epoch 3646/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0369 - accuracy: 0.9591  
Epoch 3647/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0362 - accuracy: 0.9586  
Epoch 3648/100000



2/2 [=====] - 0s 114ms/step - loss: 0.0363 - accuracy:  
0.9593  
Epoch 3649/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0365 - accuracy:  
0.9590  
Epoch 3650/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0361 - accuracy:  
0.9599  
Epoch 3651/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0360 - accuracy:  
0.9590  
Epoch 3652/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0359 - accuracy:  
0.9588  
Epoch 3653/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0380 - accuracy:  
0.9594  
Epoch 3654/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0365 - accuracy:  
0.9586  
Epoch 3655/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0368 - accuracy:  
0.9604  
Epoch 3656/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0367 - accuracy:  
0.9602  
Epoch 3657/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0361 - accuracy:  
0.9590  
Epoch 3658/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0366 - accuracy:  
0.9591  
Epoch 3659/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0367 - accuracy:  
0.9595  
Epoch 3660/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0367 - accuracy:  
0.9595  
Epoch 3661/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0363 - accuracy:  
0.9592  
Epoch 3662/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0370 - accuracy:  
0.9591  
Epoch 3663/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0359 - accuracy:  
0.9594  
Epoch 3664/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0366 - accuracy: 0.9600  
Epoch 3665/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0369 - accuracy: 0.9596  
Epoch 3666/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0364 - accuracy: 0.9590  
Epoch 3667/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0361 - accuracy: 0.9594  
Epoch 3668/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0365 - accuracy: 0.9592  
Epoch 3669/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0364 - accuracy: 0.9597  
Epoch 3670/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0360 - accuracy: 0.9592  
Epoch 3671/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0361 - accuracy: 0.9590  
Epoch 3672/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0360 - accuracy: 0.9603  
Epoch 3673/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0359 - accuracy: 0.9593  
Epoch 3674/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0358 - accuracy: 0.9596  
Epoch 3675/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0360 - accuracy: 0.9593  
Epoch 3676/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0357 - accuracy: 0.9587  
Epoch 3677/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0366 - accuracy: 0.9596  
Epoch 3678/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0361 - accuracy: 0.9598  
Epoch 3679/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0359 - accuracy: 0.9599  
Epoch 3680/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0365 - accuracy:  
0.9597  
Epoch 3681/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0360 - accuracy:  
0.9591  
Epoch 3682/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0359 - accuracy:  
0.9595  
Epoch 3683/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0366 - accuracy:  
0.9589  
Epoch 3684/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0361 - accuracy:  
0.9594  
Epoch 3685/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0363 - accuracy:  
0.9596  
Epoch 3686/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0366 - accuracy:  
0.9591  
Epoch 3687/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0369 - accuracy:  
0.9598  
Epoch 3688/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0379 - accuracy:  
0.9599  
Epoch 3689/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0371 - accuracy:  
0.9596  
Epoch 3690/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0366 - accuracy:  
0.9592  
Epoch 3691/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0363 - accuracy:  
0.9590  
Epoch 3692/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0387 - accuracy:  
0.9590  
Epoch 3693/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0373 - accuracy:  
0.9597  
Epoch 3694/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0382 - accuracy:  
0.9597  
Epoch 3695/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0393 - accuracy:  
0.9597  
Epoch 3696/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0384 - accuracy: 0.9589  
Epoch 3697/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0378 - accuracy: 0.9602  
Epoch 3698/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0377 - accuracy: 0.9591  
Epoch 3699/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0372 - accuracy: 0.9592  
Epoch 3700/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0373 - accuracy: 0.9585  
Epoch 3701/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0368 - accuracy: 0.9594  
Epoch 3702/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0366 - accuracy: 0.9604  
Epoch 3703/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0372 - accuracy: 0.9599  
Epoch 3704/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0370 - accuracy: 0.9593  
Epoch 3705/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0372 - accuracy: 0.9601  
Epoch 3706/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0368 - accuracy: 0.9595  
Epoch 3707/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0366 - accuracy: 0.9598  
Epoch 3708/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0369 - accuracy: 0.9587  
Epoch 3709/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0362 - accuracy: 0.9594  
Epoch 3710/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0364 - accuracy: 0.9592  
Epoch 3711/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0363 - accuracy: 0.9583  
Epoch 3712/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0360 - accuracy:  
0.9592  
Epoch 3713/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0360 - accuracy:  
0.9592  
Epoch 3714/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0363 - accuracy:  
0.9599  
Epoch 3715/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0373 - accuracy:  
0.9600  
Epoch 3716/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0371 - accuracy:  
0.9602  
Epoch 3717/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0355 - accuracy:  
0.9588  
Epoch 3718/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0373 - accuracy:  
0.9592  
Epoch 3719/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0368 - accuracy:  
0.9596  
Epoch 3720/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0359 - accuracy:  
0.9587  
Epoch 3721/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0368 - accuracy:  
0.9588  
Epoch 3722/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0372 - accuracy:  
0.9594  
Epoch 3723/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0359 - accuracy:  
0.9591  
Epoch 3724/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0359 - accuracy:  
0.9594  
Epoch 3725/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0363 - accuracy:  
0.9595  
Epoch 3726/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0364 - accuracy:  
0.9587  
Epoch 3727/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0360 - accuracy:  
0.9591  
Epoch 3728/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0359 - accuracy:  
0.9593  
Epoch 3729/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0364 - accuracy:  
0.9596  
Epoch 3730/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0357 - accuracy:  
0.9603  
Epoch 3731/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0359 - accuracy:  
0.9591  
Epoch 3732/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0364 - accuracy:  
0.9590  
Epoch 3733/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0361 - accuracy:  
0.9593  
Epoch 3734/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0360 - accuracy:  
0.9592  
Epoch 3735/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0364 - accuracy:  
0.9592  
Epoch 3736/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0358 - accuracy:  
0.9594  
Epoch 3737/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0361 - accuracy:  
0.9586  
Epoch 3738/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0361 - accuracy:  
0.9597  
Epoch 3739/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0366 - accuracy:  
0.9597  
Epoch 3740/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0360 - accuracy:  
0.9600  
Epoch 3741/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0365 - accuracy:  
0.9594  
Epoch 3742/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0373 - accuracy:  
0.9601  
Epoch 3743/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0381 - accuracy:  
0.9590  
Epoch 3744/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0371 - accuracy: 0.9604  
Epoch 3745/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0374 - accuracy: 0.9597  
Epoch 3746/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0368 - accuracy: 0.9591  
Epoch 3747/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0371 - accuracy: 0.9597  
Epoch 3748/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0371 - accuracy: 0.9585  
Epoch 3749/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0366 - accuracy: 0.9599  
Epoch 3750/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0368 - accuracy: 0.9597  
Epoch 3751/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0375 - accuracy: 0.9591  
Epoch 3752/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0374 - accuracy: 0.9595  
Epoch 3753/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0362 - accuracy: 0.9599  
Epoch 3754/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0363 - accuracy: 0.9594  
Epoch 3755/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0366 - accuracy: 0.9600  
Epoch 3756/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0361 - accuracy: 0.9597  
Epoch 3757/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0360 - accuracy: 0.9599  
Epoch 3758/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0360 - accuracy: 0.9599  
Epoch 3759/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0366 - accuracy: 0.9593  
Epoch 3760/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0359 - accuracy:  
0.9591  
Epoch 3761/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0363 - accuracy:  
0.9602  
Epoch 3762/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0362 - accuracy:  
0.9600  
Epoch 3763/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0366 - accuracy:  
0.9592  
Epoch 3764/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0359 - accuracy:  
0.9593  
Epoch 3765/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0361 - accuracy:  
0.9600  
Epoch 3766/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0360 - accuracy:  
0.9592  
Epoch 3767/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0359 - accuracy:  
0.9600  
Epoch 3768/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0360 - accuracy:  
0.9600  
Epoch 3769/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0361 - accuracy:  
0.9590  
Epoch 3770/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0366 - accuracy:  
0.9591  
Epoch 3771/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0368 - accuracy:  
0.9597  
Epoch 3772/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0361 - accuracy:  
0.9585  
Epoch 3773/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0374 - accuracy:  
0.9592  
Epoch 3774/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0376 - accuracy:  
0.9592  
Epoch 3775/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0362 - accuracy:  
0.9601  
Epoch 3776/100000



2/2 [=====] - 0s 114ms/step - loss: 0.0362 - accuracy:  
0.9600  
Epoch 3777/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0363 - accuracy:  
0.9595  
Epoch 3778/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0369 - accuracy:  
0.9599  
Epoch 3779/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0367 - accuracy:  
0.9595  
Epoch 3780/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0359 - accuracy:  
0.9598  
Epoch 3781/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0363 - accuracy:  
0.9596  
Epoch 3782/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0361 - accuracy:  
0.9597  
Epoch 3783/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0358 - accuracy:  
0.9593  
Epoch 3784/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0355 - accuracy:  
0.9597  
Epoch 3785/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0361 - accuracy:  
0.9597  
Epoch 3786/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0364 - accuracy:  
0.9588  
Epoch 3787/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0361 - accuracy:  
0.9594  
Epoch 3788/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0360 - accuracy:  
0.9596  
Epoch 3789/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0361 - accuracy:  
0.9597  
Epoch 3790/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0369 - accuracy:  
0.9586  
Epoch 3791/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0359 - accuracy:  
0.9586  
Epoch 3792/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0355 - accuracy: 0.9588  
 Epoch 3793/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0365 - accuracy: 0.9601  
 Epoch 3794/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0363 - accuracy: 0.9595  
 Epoch 3795/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0361 - accuracy: 0.9586  
 Epoch 3796/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0358 - accuracy: 0.9598  
 Epoch 3797/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0363 - accuracy: 0.9601  
 Epoch 3798/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0358 - accuracy: 0.9589  
 Epoch 3799/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0360 - accuracy: 0.9587  
 Epoch 3800/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0362 - accuracy: 0.9602  
 Epoch 3801/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0357 - accuracy: 0.9598  
 Epoch 3802/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0362 - accuracy: 0.9590  
 Epoch 3803/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0356 - accuracy: 0.9606  
 Epoch 3804/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0356 - accuracy: 0.9588  
 Epoch 3805/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0358 - accuracy: 0.9589  
 Epoch 3806/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0359 - accuracy: 0.9595  
 Epoch 3807/100000  
 2/2 [=====] - 0s 120ms/step - loss: 0.0358 - accuracy: 0.9600  
 Epoch 3808/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0359 - accuracy:  
0.9603  
Epoch 3809/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0357 - accuracy:  
0.9595  
Epoch 3810/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0365 - accuracy:  
0.9594  
Epoch 3811/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0359 - accuracy:  
0.9603  
Epoch 3812/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0360 - accuracy:  
0.9593  
Epoch 3813/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0365 - accuracy:  
0.9600  
Epoch 3814/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0367 - accuracy:  
0.9600  
Epoch 3815/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0359 - accuracy:  
0.9599  
Epoch 3816/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0363 - accuracy:  
0.9600  
Epoch 3817/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0366 - accuracy:  
0.9590  
Epoch 3818/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0371 - accuracy:  
0.9589  
Epoch 3819/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0369 - accuracy:  
0.9595  
Epoch 3820/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0371 - accuracy:  
0.9598  
Epoch 3821/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0364 - accuracy:  
0.9603  
Epoch 3822/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0363 - accuracy:  
0.9594  
Epoch 3823/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0360 - accuracy:  
0.9596  
Epoch 3824/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0367 - accuracy: 0.9596  
 Epoch 3825/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0360 - accuracy: 0.9595  
 Epoch 3826/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0360 - accuracy: 0.9586  
 Epoch 3827/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0358 - accuracy: 0.9593  
 Epoch 3828/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0361 - accuracy: 0.9590  
 Epoch 3829/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0361 - accuracy: 0.9593  
 Epoch 3830/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0358 - accuracy: 0.9606  
 Epoch 3831/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0359 - accuracy: 0.9596  
 Epoch 3832/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0357 - accuracy: 0.9589  
 Epoch 3833/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0363 - accuracy: 0.9587  
 Epoch 3834/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0363 - accuracy: 0.9591  
 Epoch 3835/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0363 - accuracy: 0.9611  
 Epoch 3836/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0364 - accuracy: 0.9601  
 Epoch 3837/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0362 - accuracy: 0.9599  
 Epoch 3838/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0357 - accuracy: 0.9601  
 Epoch 3839/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0357 - accuracy: 0.9598  
 Epoch 3840/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0356 - accuracy: 0.9592  
 Epoch 3841/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0364 - accuracy: 0.9597  
 Epoch 3842/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0360 - accuracy: 0.9600  
 Epoch 3843/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0369 - accuracy: 0.9603  
 Epoch 3844/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0357 - accuracy: 0.9595  
 Epoch 3845/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0359 - accuracy: 0.9601  
 Epoch 3846/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0360 - accuracy: 0.9595  
 Epoch 3847/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0363 - accuracy: 0.9596  
 Epoch 3848/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0358 - accuracy: 0.9601  
 Epoch 3849/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0360 - accuracy: 0.9594  
 Epoch 3850/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0371 - accuracy: 0.9589  
 Epoch 3851/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0363 - accuracy: 0.9590  
 Epoch 3852/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0360 - accuracy: 0.9589  
 Epoch 3853/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0380 - accuracy: 0.9588  
 Epoch 3854/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0374 - accuracy: 0.9598  
 Epoch 3855/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0365 - accuracy: 0.9587  
 Epoch 3856/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0371 - accuracy:  
0.9592  
Epoch 3857/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0373 - accuracy:  
0.9595  
Epoch 3858/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0380 - accuracy:  
0.9599  
Epoch 3859/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0363 - accuracy:  
0.9582  
Epoch 3860/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0358 - accuracy:  
0.9595  
Epoch 3861/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0366 - accuracy:  
0.9589  
Epoch 3862/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0361 - accuracy:  
0.9611  
Epoch 3863/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0357 - accuracy:  
0.9587  
Epoch 3864/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0359 - accuracy:  
0.9597  
Epoch 3865/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0363 - accuracy:  
0.9597  
Epoch 3866/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0355 - accuracy:  
0.9596  
Epoch 3867/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0359 - accuracy:  
0.9594  
Epoch 3868/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0366 - accuracy:  
0.9595  
Epoch 3869/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0357 - accuracy:  
0.9593  
Epoch 3870/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0362 - accuracy:  
0.9597  
Epoch 3871/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0359 - accuracy:  
0.9599  
Epoch 3872/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0354 - accuracy:  
0.9597  
Epoch 3873/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0360 - accuracy:  
0.9593  
Epoch 3874/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0355 - accuracy:  
0.9591  
Epoch 3875/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0355 - accuracy:  
0.9593  
Epoch 3876/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0356 - accuracy:  
0.9588  
Epoch 3877/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0354 - accuracy:  
0.9594  
Epoch 3878/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0355 - accuracy:  
0.9588  
Epoch 3879/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0356 - accuracy:  
0.9598  
Epoch 3880/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0355 - accuracy:  
0.9592  
Epoch 3881/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0357 - accuracy:  
0.9606  
Epoch 3882/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0354 - accuracy:  
0.9599  
Epoch 3883/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0352 - accuracy:  
0.9594  
Epoch 3884/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0361 - accuracy:  
0.9597  
Epoch 3885/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0356 - accuracy:  
0.9585  
Epoch 3886/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0354 - accuracy:  
0.9594  
Epoch 3887/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0355 - accuracy:  
0.9591  
Epoch 3888/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0360 - accuracy: 0.9596  
Epoch 3889/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0359 - accuracy: 0.9593  
Epoch 3890/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0353 - accuracy: 0.9595  
Epoch 3891/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0361 - accuracy: 0.9597  
Epoch 3892/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0358 - accuracy: 0.9586  
Epoch 3893/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0359 - accuracy: 0.9595  
Epoch 3894/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0353 - accuracy: 0.9591  
Epoch 3895/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0357 - accuracy: 0.9590  
Epoch 3896/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0357 - accuracy: 0.9591  
Epoch 3897/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0355 - accuracy: 0.9584  
Epoch 3898/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0362 - accuracy: 0.9603  
Epoch 3899/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0365 - accuracy: 0.9597  
Epoch 3900/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0365 - accuracy: 0.9587  
Epoch 3901/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0364 - accuracy: 0.9599  
Epoch 3902/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0370 - accuracy: 0.9596  
Epoch 3903/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0365 - accuracy: 0.9598  
Epoch 3904/100000



2/2 [=====] - 0s 116ms/step - loss: 0.0357 - accuracy:  
0.9592  
Epoch 3905/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0364 - accuracy:  
0.9598  
Epoch 3906/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0361 - accuracy:  
0.9600  
Epoch 3907/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0362 - accuracy:  
0.9598  
Epoch 3908/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0366 - accuracy:  
0.9603  
Epoch 3909/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0361 - accuracy:  
0.9597  
Epoch 3910/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0362 - accuracy:  
0.9596  
Epoch 3911/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0360 - accuracy:  
0.9599  
Epoch 3912/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0360 - accuracy:  
0.9589  
Epoch 3913/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0368 - accuracy:  
0.9606  
Epoch 3914/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0366 - accuracy:  
0.9600  
Epoch 3915/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0358 - accuracy:  
0.9598  
Epoch 3916/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0363 - accuracy:  
0.9590  
Epoch 3917/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0358 - accuracy:  
0.9587  
Epoch 3918/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0360 - accuracy:  
0.9596  
Epoch 3919/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0358 - accuracy:  
0.9590  
Epoch 3920/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0362 - accuracy:  
0.9593  
Epoch 3921/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0356 - accuracy:  
0.9594  
Epoch 3922/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0356 - accuracy:  
0.9591  
Epoch 3923/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0363 - accuracy:  
0.9589  
Epoch 3924/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0359 - accuracy:  
0.9588  
Epoch 3925/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0359 - accuracy:  
0.9592  
Epoch 3926/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0354 - accuracy:  
0.9600  
Epoch 3927/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0356 - accuracy:  
0.9585  
Epoch 3928/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0356 - accuracy:  
0.9597  
Epoch 3929/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0356 - accuracy:  
0.9600  
Epoch 3930/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0361 - accuracy:  
0.9586  
Epoch 3931/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0358 - accuracy:  
0.9589  
Epoch 3932/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0364 - accuracy:  
0.9600  
Epoch 3933/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0375 - accuracy:  
0.9591  
Epoch 3934/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0355 - accuracy:  
0.9585  
Epoch 3935/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0363 - accuracy:  
0.9602  
Epoch 3936/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0371 - accuracy:  
0.9594  
Epoch 3937/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0373 - accuracy:  
0.9594  
Epoch 3938/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0357 - accuracy:  
0.9590  
Epoch 3939/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0363 - accuracy:  
0.9600  
Epoch 3940/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0365 - accuracy:  
0.9585  
Epoch 3941/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0357 - accuracy:  
0.9600  
Epoch 3942/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0363 - accuracy:  
0.9601  
Epoch 3943/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0361 - accuracy:  
0.9592  
Epoch 3944/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0359 - accuracy:  
0.9593  
Epoch 3945/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0374 - accuracy:  
0.9593  
Epoch 3946/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0365 - accuracy:  
0.9578  
Epoch 3947/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0363 - accuracy:  
0.9598  
Epoch 3948/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0367 - accuracy:  
0.9603  
Epoch 3949/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0365 - accuracy:  
0.9593  
Epoch 3950/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0355 - accuracy:  
0.9598  
Epoch 3951/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0360 - accuracy:  
0.9604  
Epoch 3952/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0355 - accuracy:  
0.9590  
Epoch 3953/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0355 - accuracy:  
0.9597  
Epoch 3954/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0355 - accuracy:  
0.9602  
Epoch 3955/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0354 - accuracy:  
0.9589  
Epoch 3956/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0354 - accuracy:  
0.9597  
Epoch 3957/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0358 - accuracy:  
0.9603  
Epoch 3958/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0355 - accuracy:  
0.9589  
Epoch 3959/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0354 - accuracy:  
0.9601  
Epoch 3960/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0362 - accuracy:  
0.9594  
Epoch 3961/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0354 - accuracy:  
0.9597  
Epoch 3962/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0353 - accuracy:  
0.9594  
Epoch 3963/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0361 - accuracy:  
0.9597  
Epoch 3964/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0360 - accuracy:  
0.9598  
Epoch 3965/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0360 - accuracy:  
0.9595  
Epoch 3966/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0357 - accuracy:  
0.9603  
Epoch 3967/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0360 - accuracy:  
0.9599  
Epoch 3968/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0363 - accuracy: 0.9603  
 Epoch 3969/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0359 - accuracy: 0.9585  
 Epoch 3970/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0358 - accuracy: 0.9589  
 Epoch 3971/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0358 - accuracy: 0.9588  
 Epoch 3972/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0356 - accuracy: 0.9591  
 Epoch 3973/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0354 - accuracy: 0.9589  
 Epoch 3974/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0360 - accuracy: 0.9586  
 Epoch 3975/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0353 - accuracy: 0.9590  
 Epoch 3976/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0356 - accuracy: 0.9606  
 Epoch 3977/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0354 - accuracy: 0.9584  
 Epoch 3978/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0356 - accuracy: 0.9597  
 Epoch 3979/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0357 - accuracy: 0.9599  
 Epoch 3980/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0358 - accuracy: 0.9592  
 Epoch 3981/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0358 - accuracy: 0.9603  
 Epoch 3982/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0362 - accuracy: 0.9599  
 Epoch 3983/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0363 - accuracy: 0.9589  
 Epoch 3984/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0364 - accuracy:  
0.9588  
Epoch 3985/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0359 - accuracy:  
0.9594  
Epoch 3986/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0364 - accuracy:  
0.9602  
Epoch 3987/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0355 - accuracy:  
0.9588  
Epoch 3988/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0364 - accuracy:  
0.9582  
Epoch 3989/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0355 - accuracy:  
0.9592  
Epoch 3990/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0360 - accuracy:  
0.9596  
Epoch 3991/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0356 - accuracy:  
0.9587  
Epoch 3992/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0357 - accuracy:  
0.9592  
Epoch 3993/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0357 - accuracy:  
0.9596  
Epoch 3994/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0357 - accuracy:  
0.9592  
Epoch 3995/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0359 - accuracy:  
0.9603  
Epoch 3996/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0351 - accuracy:  
0.9587  
Epoch 3997/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0354 - accuracy:  
0.9594  
Epoch 3998/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0355 - accuracy:  
0.9599  
Epoch 3999/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0358 - accuracy:  
0.9588  
Epoch 4000/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0361 - accuracy:  
0.9596  
Epoch 4001/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0354 - accuracy:  
0.9593  
Epoch 4002/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0364 - accuracy:  
0.9586  
Epoch 4003/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0384 - accuracy:  
0.9588  
Epoch 4004/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0371 - accuracy:  
0.9592  
Epoch 4005/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0392 - accuracy:  
0.9603  
Epoch 4006/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0369 - accuracy:  
0.9604  
Epoch 4007/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0364 - accuracy:  
0.9603  
Epoch 4008/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0371 - accuracy:  
0.9586  
Epoch 4009/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0373 - accuracy:  
0.9594  
Epoch 4010/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0360 - accuracy:  
0.9593  
Epoch 4011/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0364 - accuracy:  
0.9600  
Epoch 4012/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0361 - accuracy:  
0.9593  
Epoch 4013/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0359 - accuracy:  
0.9592  
Epoch 4014/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0368 - accuracy:  
0.9594  
Epoch 4015/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0360 - accuracy:  
0.9594  
Epoch 4016/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0363 - accuracy: 0.9602  
 Epoch 4017/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0359 - accuracy: 0.9591  
 Epoch 4018/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0365 - accuracy: 0.9605  
 Epoch 4019/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0363 - accuracy: 0.9598  
 Epoch 4020/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0357 - accuracy: 0.9601  
 Epoch 4021/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0362 - accuracy: 0.9602  
 Epoch 4022/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0359 - accuracy: 0.9600  
 Epoch 4023/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0359 - accuracy: 0.9603  
 Epoch 4024/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0356 - accuracy: 0.9596  
 Epoch 4025/100000  
 2/2 [=====] - 0s 124ms/step - loss: 0.0358 - accuracy: 0.9600  
 Epoch 4026/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0359 - accuracy: 0.9593  
 Epoch 4027/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0356 - accuracy: 0.9603  
 Epoch 4028/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0356 - accuracy: 0.9593  
 Epoch 4029/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0356 - accuracy: 0.9590  
 Epoch 4030/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0353 - accuracy: 0.9596  
 Epoch 4031/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0354 - accuracy: 0.9593  
 Epoch 4032/100000



2/2 [=====] - 0s 116ms/step - loss: 0.0359 - accuracy: 0.9595  
 Epoch 4033/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0353 - accuracy: 0.9587  
 Epoch 4034/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0359 - accuracy: 0.9593  
 Epoch 4035/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0349 - accuracy: 0.9598  
 Epoch 4036/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0356 - accuracy: 0.9589  
 Epoch 4037/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0353 - accuracy: 0.9591  
 Epoch 4038/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0359 - accuracy: 0.9595  
 Epoch 4039/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0366 - accuracy: 0.9595  
 Epoch 4040/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0360 - accuracy: 0.9610  
 Epoch 4041/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0373 - accuracy: 0.9600  
 Epoch 4042/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0367 - accuracy: 0.9598  
 Epoch 4043/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0360 - accuracy: 0.9584  
 Epoch 4044/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0358 - accuracy: 0.9600  
 Epoch 4045/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0362 - accuracy: 0.9595  
 Epoch 4046/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0359 - accuracy: 0.9594  
 Epoch 4047/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0356 - accuracy: 0.9600  
 Epoch 4048/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0359 - accuracy:  
0.9598  
Epoch 4049/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0361 - accuracy:  
0.9597  
Epoch 4050/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0355 - accuracy:  
0.9593  
Epoch 4051/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0355 - accuracy:  
0.9598  
Epoch 4052/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0359 - accuracy:  
0.9601  
Epoch 4053/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0361 - accuracy:  
0.9588  
Epoch 4054/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0353 - accuracy:  
0.9594  
Epoch 4055/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0359 - accuracy:  
0.9592  
Epoch 4056/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0356 - accuracy:  
0.9603  
Epoch 4057/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0365 - accuracy:  
0.9602  
Epoch 4058/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0357 - accuracy:  
0.9597  
Epoch 4059/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0368 - accuracy:  
0.9601  
Epoch 4060/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0370 - accuracy:  
0.9603  
Epoch 4061/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0399 - accuracy:  
0.9606  
Epoch 4062/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0374 - accuracy:  
0.9604  
Epoch 4063/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0378 - accuracy:  
0.9600  
Epoch 4064/100000

2/2 [=====] - 0s 123ms/step - loss: 0.0361 - accuracy:  
0.9582  
Epoch 4065/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0363 - accuracy:  
0.9593  
Epoch 4066/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0365 - accuracy:  
0.9591  
Epoch 4067/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0354 - accuracy:  
0.9588  
Epoch 4068/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0363 - accuracy:  
0.9594  
Epoch 4069/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0357 - accuracy:  
0.9591  
Epoch 4070/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0369 - accuracy:  
0.9591  
Epoch 4071/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0356 - accuracy:  
0.9587  
Epoch 4072/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0359 - accuracy:  
0.9602  
Epoch 4073/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0354 - accuracy:  
0.9599  
Epoch 4074/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0359 - accuracy:  
0.9593  
Epoch 4075/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0358 - accuracy:  
0.9589  
Epoch 4076/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0356 - accuracy:  
0.9589  
Epoch 4077/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0357 - accuracy:  
0.9598  
Epoch 4078/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0354 - accuracy:  
0.9594  
Epoch 4079/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0356 - accuracy:  
0.9599  
Epoch 4080/100000

2/2 [=====] - 0s 130ms/step - loss: 0.0364 - accuracy:  
0.9588  
Epoch 4081/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0365 - accuracy:  
0.9600  
Epoch 4082/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0364 - accuracy:  
0.9595  
Epoch 4083/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0363 - accuracy:  
0.9589  
Epoch 4084/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0372 - accuracy:  
0.9603  
Epoch 4085/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0377 - accuracy:  
0.9599  
Epoch 4086/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0366 - accuracy:  
0.9597  
Epoch 4087/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0360 - accuracy:  
0.9596  
Epoch 4088/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0361 - accuracy:  
0.9596  
Epoch 4089/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0371 - accuracy:  
0.9602  
Epoch 4090/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0364 - accuracy:  
0.9600  
Epoch 4091/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0360 - accuracy:  
0.9602  
Epoch 4092/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0365 - accuracy:  
0.9591  
Epoch 4093/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0356 - accuracy:  
0.9596  
Epoch 4094/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0357 - accuracy:  
0.9593  
Epoch 4095/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0358 - accuracy:  
0.9599  
Epoch 4096/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0362 - accuracy:  
0.9595  
Epoch 4097/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0356 - accuracy:  
0.9588  
Epoch 4098/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0368 - accuracy:  
0.9587  
Epoch 4099/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0365 - accuracy:  
0.9595  
Epoch 4100/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0367 - accuracy:  
0.9596  
Epoch 4101/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0361 - accuracy:  
0.9590  
Epoch 4102/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0357 - accuracy:  
0.9586  
Epoch 4103/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0357 - accuracy:  
0.9597  
Epoch 4104/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0356 - accuracy:  
0.9598  
Epoch 4105/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0368 - accuracy:  
0.9596  
Epoch 4106/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0364 - accuracy:  
0.9584  
Epoch 4107/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0360 - accuracy:  
0.9601  
Epoch 4108/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0354 - accuracy:  
0.9594  
Epoch 4109/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0358 - accuracy:  
0.9606  
Epoch 4110/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0361 - accuracy:  
0.9597  
Epoch 4111/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0364 - accuracy:  
0.9600  
Epoch 4112/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0359 - accuracy:  
0.9597  
Epoch 4113/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0358 - accuracy:  
0.9601  
Epoch 4114/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0358 - accuracy:  
0.9589  
Epoch 4115/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0357 - accuracy:  
0.9583  
Epoch 4116/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0359 - accuracy:  
0.9599  
Epoch 4117/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0368 - accuracy:  
0.9588  
Epoch 4118/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0368 - accuracy:  
0.9606  
Epoch 4119/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0362 - accuracy:  
0.9598  
Epoch 4120/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0364 - accuracy:  
0.9601  
Epoch 4121/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0362 - accuracy:  
0.9599  
Epoch 4122/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0357 - accuracy:  
0.9590  
Epoch 4123/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0367 - accuracy:  
0.9592  
Epoch 4124/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0356 - accuracy:  
0.9591  
Epoch 4125/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0356 - accuracy:  
0.9593  
Epoch 4126/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0380 - accuracy:  
0.9596  
Epoch 4127/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0363 - accuracy:  
0.9600  
Epoch 4128/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0365 - accuracy:  
0.9599  
Epoch 4129/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0370 - accuracy:  
0.9591  
Epoch 4130/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0374 - accuracy:  
0.9597  
Epoch 4131/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0364 - accuracy:  
0.9597  
Epoch 4132/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0359 - accuracy:  
0.9599  
Epoch 4133/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0368 - accuracy:  
0.9604  
Epoch 4134/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0363 - accuracy:  
0.9594  
Epoch 4135/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0356 - accuracy:  
0.9587  
Epoch 4136/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0363 - accuracy:  
0.9600  
Epoch 4137/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0357 - accuracy:  
0.9591  
Epoch 4138/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0356 - accuracy:  
0.9594  
Epoch 4139/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0364 - accuracy:  
0.9594  
Epoch 4140/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0362 - accuracy:  
0.9602  
Epoch 4141/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0364 - accuracy:  
0.9592  
Epoch 4142/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0366 - accuracy:  
0.9593  
Epoch 4143/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0362 - accuracy:  
0.9596  
Epoch 4144/100000

2/2 [=====] - 0s 124ms/step - loss: 0.0359 - accuracy:  
0.9594  
Epoch 4145/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0355 - accuracy:  
0.9589  
Epoch 4146/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0357 - accuracy:  
0.9597  
Epoch 4147/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0355 - accuracy:  
0.9589  
Epoch 4148/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0358 - accuracy:  
0.9603  
Epoch 4149/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0352 - accuracy:  
0.9592  
Epoch 4150/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0356 - accuracy:  
0.9588  
Epoch 4151/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0358 - accuracy:  
0.9586  
Epoch 4152/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0357 - accuracy:  
0.9600  
Epoch 4153/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0361 - accuracy:  
0.9599  
Epoch 4154/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0360 - accuracy:  
0.9598  
Epoch 4155/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0356 - accuracy:  
0.9592  
Epoch 4156/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0357 - accuracy:  
0.9586  
Epoch 4157/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0354 - accuracy:  
0.9598  
Epoch 4158/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0352 - accuracy:  
0.9597  
Epoch 4159/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0355 - accuracy:  
0.9590  
Epoch 4160/100000



2/2 [=====] - 0s 116ms/step - loss: 0.0356 - accuracy:  
0.9604  
Epoch 4161/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0357 - accuracy:  
0.9600  
Epoch 4162/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0354 - accuracy:  
0.9596  
Epoch 4163/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0355 - accuracy:  
0.9597  
Epoch 4164/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0352 - accuracy:  
0.9591  
Epoch 4165/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0348 - accuracy:  
0.9593  
Epoch 4166/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy:  
0.9595  
Epoch 4167/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0353 - accuracy:  
0.9599  
Epoch 4168/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0356 - accuracy:  
0.9597  
Epoch 4169/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0351 - accuracy:  
0.9588  
Epoch 4170/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0352 - accuracy:  
0.9590  
Epoch 4171/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0354 - accuracy:  
0.9592  
Epoch 4172/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0355 - accuracy:  
0.9592  
Epoch 4173/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0358 - accuracy:  
0.9592  
Epoch 4174/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0359 - accuracy:  
0.9595  
Epoch 4175/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0369 - accuracy:  
0.9590  
Epoch 4176/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0369 - accuracy:  
0.9600  
Epoch 4177/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0362 - accuracy:  
0.9592  
Epoch 4178/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0364 - accuracy:  
0.9598  
Epoch 4179/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0367 - accuracy:  
0.9586  
Epoch 4180/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0364 - accuracy:  
0.9599  
Epoch 4181/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0356 - accuracy:  
0.9593  
Epoch 4182/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0356 - accuracy:  
0.9599  
Epoch 4183/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0365 - accuracy:  
0.9594  
Epoch 4184/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0355 - accuracy:  
0.9591  
Epoch 4185/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0356 - accuracy:  
0.9592  
Epoch 4186/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0356 - accuracy:  
0.9597  
Epoch 4187/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0377 - accuracy:  
0.9586  
Epoch 4188/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0356 - accuracy:  
0.9595  
Epoch 4189/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0354 - accuracy:  
0.9593  
Epoch 4190/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0361 - accuracy:  
0.9594  
Epoch 4191/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0356 - accuracy:  
0.9590  
Epoch 4192/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0356 - accuracy: 0.9599  
 Epoch 4193/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0354 - accuracy: 0.9588  
 Epoch 4194/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0360 - accuracy: 0.9604  
 Epoch 4195/100000  
 2/2 [=====] - 0s 124ms/step - loss: 0.0356 - accuracy: 0.9594  
 Epoch 4196/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0349 - accuracy: 0.9589  
 Epoch 4197/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0360 - accuracy: 0.9601  
 Epoch 4198/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0352 - accuracy: 0.9592  
 Epoch 4199/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0355 - accuracy: 0.9596  
 Epoch 4200/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0360 - accuracy: 0.9607  
 Epoch 4201/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0354 - accuracy: 0.9590  
 Epoch 4202/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0366 - accuracy: 0.9598  
 Epoch 4203/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0361 - accuracy: 0.9598  
 Epoch 4204/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0353 - accuracy: 0.9598  
 Epoch 4205/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0361 - accuracy: 0.9589  
 Epoch 4206/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0356 - accuracy: 0.9607  
 Epoch 4207/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0358 - accuracy: 0.9591  
 Epoch 4208/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0375 - accuracy: 0.9590  
Epoch 4209/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0361 - accuracy: 0.9587  
Epoch 4210/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0355 - accuracy: 0.9589  
Epoch 4211/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0370 - accuracy: 0.9595  
Epoch 4212/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0373 - accuracy: 0.9596  
Epoch 4213/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0360 - accuracy: 0.9607  
Epoch 4214/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0358 - accuracy: 0.9593  
Epoch 4215/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0358 - accuracy: 0.9594  
Epoch 4216/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0358 - accuracy: 0.9586  
Epoch 4217/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0357 - accuracy: 0.9601  
Epoch 4218/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0348 - accuracy: 0.9592  
Epoch 4219/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0356 - accuracy: 0.9611  
Epoch 4220/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0354 - accuracy: 0.9599  
Epoch 4221/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0351 - accuracy: 0.9600  
Epoch 4222/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0355 - accuracy: 0.9600  
Epoch 4223/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0353 - accuracy: 0.9593  
Epoch 4224/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0356 - accuracy:  
0.9595  
Epoch 4225/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0356 - accuracy:  
0.9593  
Epoch 4226/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0357 - accuracy:  
0.9600  
Epoch 4227/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0355 - accuracy:  
0.9589  
Epoch 4228/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0357 - accuracy:  
0.9590  
Epoch 4229/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0357 - accuracy:  
0.9593  
Epoch 4230/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0360 - accuracy:  
0.9594  
Epoch 4231/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0361 - accuracy:  
0.9592  
Epoch 4232/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0360 - accuracy:  
0.9595  
Epoch 4233/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0360 - accuracy:  
0.9605  
Epoch 4234/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0357 - accuracy:  
0.9582  
Epoch 4235/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0355 - accuracy:  
0.9588  
Epoch 4236/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0359 - accuracy:  
0.9597  
Epoch 4237/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0357 - accuracy:  
0.9596  
Epoch 4238/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0360 - accuracy:  
0.9602  
Epoch 4239/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0363 - accuracy:  
0.9600  
Epoch 4240/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0362 - accuracy: 0.9605  
 Epoch 4241/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0356 - accuracy: 0.9597  
 Epoch 4242/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0352 - accuracy: 0.9600  
 Epoch 4243/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0354 - accuracy: 0.9597  
 Epoch 4244/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0352 - accuracy: 0.9593  
 Epoch 4245/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0355 - accuracy: 0.9594  
 Epoch 4246/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0351 - accuracy: 0.9582  
 Epoch 4247/100000  
 2/2 [=====] - 0s 123ms/step - loss: 0.0356 - accuracy: 0.9603  
 Epoch 4248/100000  
 2/2 [=====] - 0s 120ms/step - loss: 0.0361 - accuracy: 0.9602  
 Epoch 4249/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0363 - accuracy: 0.9602  
 Epoch 4250/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0350 - accuracy: 0.9605  
 Epoch 4251/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0356 - accuracy: 0.9599  
 Epoch 4252/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0357 - accuracy: 0.9591  
 Epoch 4253/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0355 - accuracy: 0.9587  
 Epoch 4254/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0358 - accuracy: 0.9593  
 Epoch 4255/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0355 - accuracy: 0.9587  
 Epoch 4256/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0361 - accuracy: 0.9610  
 Epoch 4257/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0357 - accuracy: 0.9599  
 Epoch 4258/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0357 - accuracy: 0.9602  
 Epoch 4259/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0351 - accuracy: 0.9590  
 Epoch 4260/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy: 0.9594  
 Epoch 4261/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0354 - accuracy: 0.9602  
 Epoch 4262/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0350 - accuracy: 0.9599  
 Epoch 4263/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0349 - accuracy: 0.9590  
 Epoch 4264/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0369 - accuracy: 0.9598  
 Epoch 4265/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0358 - accuracy: 0.9597  
 Epoch 4266/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0357 - accuracy: 0.9593  
 Epoch 4267/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0363 - accuracy: 0.9598  
 Epoch 4268/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0362 - accuracy: 0.9605  
 Epoch 4269/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0357 - accuracy: 0.9588  
 Epoch 4270/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0366 - accuracy: 0.9596  
 Epoch 4271/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0355 - accuracy: 0.9596  
 Epoch 4272/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0351 - accuracy:  
 0.9591  
 Epoch 4273/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0361 - accuracy:  
 0.9590  
 Epoch 4274/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0355 - accuracy:  
 0.9598  
 Epoch 4275/100000  
 2/2 [=====] - 0s 120ms/step - loss: 0.0356 - accuracy:  
 0.9590  
 Epoch 4276/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0361 - accuracy:  
 0.9589  
 Epoch 4277/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0354 - accuracy:  
 0.9594  
 Epoch 4278/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0349 - accuracy:  
 0.9589  
 Epoch 4279/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0360 - accuracy:  
 0.9601  
 Epoch 4280/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0356 - accuracy:  
 0.9589  
 Epoch 4281/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0347 - accuracy:  
 0.9598  
 Epoch 4282/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0348 - accuracy:  
 0.9582  
 Epoch 4283/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0356 - accuracy:  
 0.9584  
 Epoch 4284/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0353 - accuracy:  
 0.9596  
 Epoch 4285/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0354 - accuracy:  
 0.9598  
 Epoch 4286/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0349 - accuracy:  
 0.9594  
 Epoch 4287/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0351 - accuracy:  
 0.9599  
 Epoch 4288/100000



2/2 [=====] - 0s 116ms/step - loss: 0.0354 - accuracy:  
0.9589  
Epoch 4289/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0353 - accuracy:  
0.9591  
Epoch 4290/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0352 - accuracy:  
0.9588  
Epoch 4291/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0361 - accuracy:  
0.9589  
Epoch 4292/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0351 - accuracy:  
0.9586  
Epoch 4293/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0357 - accuracy:  
0.9594  
Epoch 4294/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0355 - accuracy:  
0.9597  
Epoch 4295/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0351 - accuracy:  
0.9587  
Epoch 4296/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0354 - accuracy:  
0.9596  
Epoch 4297/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0356 - accuracy:  
0.9598  
Epoch 4298/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0352 - accuracy:  
0.9593  
Epoch 4299/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0359 - accuracy:  
0.9589  
Epoch 4300/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0356 - accuracy:  
0.9591  
Epoch 4301/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0352 - accuracy:  
0.9594  
Epoch 4302/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0350 - accuracy:  
0.9597  
Epoch 4303/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0352 - accuracy:  
0.9593  
Epoch 4304/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0350 - accuracy: 0.9593  
 Epoch 4305/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0352 - accuracy: 0.9590  
 Epoch 4306/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0352 - accuracy: 0.9593  
 Epoch 4307/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0349 - accuracy: 0.9583  
 Epoch 4308/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0353 - accuracy: 0.9596  
 Epoch 4309/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0354 - accuracy: 0.9591  
 Epoch 4310/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0351 - accuracy: 0.9602  
 Epoch 4311/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0352 - accuracy: 0.9592  
 Epoch 4312/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0357 - accuracy: 0.9596  
 Epoch 4313/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0356 - accuracy: 0.9594  
 Epoch 4314/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0356 - accuracy: 0.9594  
 Epoch 4315/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0357 - accuracy: 0.9599  
 Epoch 4316/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0355 - accuracy: 0.9595  
 Epoch 4317/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0357 - accuracy: 0.9594  
 Epoch 4318/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0361 - accuracy: 0.9602  
 Epoch 4319/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0355 - accuracy: 0.9596  
 Epoch 4320/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0355 - accuracy:  
0.9598  
Epoch 4321/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0363 - accuracy:  
0.9599  
Epoch 4322/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0363 - accuracy:  
0.9599  
Epoch 4323/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0393 - accuracy:  
0.9594  
Epoch 4324/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0405 - accuracy:  
0.9593  
Epoch 4325/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0379 - accuracy:  
0.9598  
Epoch 4326/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0364 - accuracy:  
0.9585  
Epoch 4327/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0365 - accuracy:  
0.9595  
Epoch 4328/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0363 - accuracy:  
0.9591  
Epoch 4329/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0375 - accuracy:  
0.9591  
Epoch 4330/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0363 - accuracy:  
0.9587  
Epoch 4331/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0356 - accuracy:  
0.9602  
Epoch 4332/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0361 - accuracy:  
0.9600  
Epoch 4333/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0365 - accuracy:  
0.9599  
Epoch 4334/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0355 - accuracy:  
0.9600  
Epoch 4335/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0357 - accuracy:  
0.9605  
Epoch 4336/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0361 - accuracy:  
0.9599  
Epoch 4337/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0361 - accuracy:  
0.9606  
Epoch 4338/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0359 - accuracy:  
0.9607  
Epoch 4339/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0355 - accuracy:  
0.9595  
Epoch 4340/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0354 - accuracy:  
0.9592  
Epoch 4341/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0361 - accuracy:  
0.9602  
Epoch 4342/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0354 - accuracy:  
0.9585  
Epoch 4343/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0362 - accuracy:  
0.9594  
Epoch 4344/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0358 - accuracy:  
0.9592  
Epoch 4345/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0357 - accuracy:  
0.9590  
Epoch 4346/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0365 - accuracy:  
0.9596  
Epoch 4347/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0365 - accuracy:  
0.9595  
Epoch 4348/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0355 - accuracy:  
0.9591  
Epoch 4349/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0359 - accuracy:  
0.9598  
Epoch 4350/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0347 - accuracy:  
0.9590  
Epoch 4351/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0360 - accuracy:  
0.9596  
Epoch 4352/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0360 - accuracy:  
0.9589  
Epoch 4353/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0355 - accuracy:  
0.9595  
Epoch 4354/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0349 - accuracy:  
0.9591  
Epoch 4355/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0356 - accuracy:  
0.9602  
Epoch 4356/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0360 - accuracy:  
0.9592  
Epoch 4357/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0365 - accuracy:  
0.9596  
Epoch 4358/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0360 - accuracy:  
0.9594  
Epoch 4359/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0366 - accuracy:  
0.9584  
Epoch 4360/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0356 - accuracy:  
0.9592  
Epoch 4361/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0356 - accuracy:  
0.9598  
Epoch 4362/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0355 - accuracy:  
0.9602  
Epoch 4363/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0360 - accuracy:  
0.9598  
Epoch 4364/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0352 - accuracy:  
0.9591  
Epoch 4365/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0352 - accuracy:  
0.9592  
Epoch 4366/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0360 - accuracy:  
0.9593  
Epoch 4367/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0357 - accuracy:  
0.9600  
Epoch 4368/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0364 - accuracy: 0.9593  
Epoch 4369/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0359 - accuracy: 0.9607  
Epoch 4370/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0351 - accuracy: 0.9585  
Epoch 4371/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0354 - accuracy: 0.9593  
Epoch 4372/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy: 0.9593  
Epoch 4373/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0352 - accuracy: 0.9604  
Epoch 4374/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0360 - accuracy: 0.9593  
Epoch 4375/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0348 - accuracy: 0.9588  
Epoch 4376/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0360 - accuracy: 0.9592  
Epoch 4377/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0355 - accuracy: 0.9597  
Epoch 4378/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0354 - accuracy: 0.9592  
Epoch 4379/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0349 - accuracy: 0.9593  
Epoch 4380/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0352 - accuracy: 0.9604  
Epoch 4381/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0356 - accuracy: 0.9604  
Epoch 4382/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0357 - accuracy: 0.9591  
Epoch 4383/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0366 - accuracy: 0.9594  
Epoch 4384/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0357 - accuracy:  
0.9602  
Epoch 4385/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0368 - accuracy:  
0.9597  
Epoch 4386/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0371 - accuracy:  
0.9588  
Epoch 4387/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0363 - accuracy:  
0.9588  
Epoch 4388/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0356 - accuracy:  
0.9588  
Epoch 4389/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0367 - accuracy:  
0.9588  
Epoch 4390/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0364 - accuracy:  
0.9593  
Epoch 4391/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0366 - accuracy:  
0.9601  
Epoch 4392/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0358 - accuracy:  
0.9594  
Epoch 4393/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0358 - accuracy:  
0.9596  
Epoch 4394/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0361 - accuracy:  
0.9592  
Epoch 4395/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0366 - accuracy:  
0.9603  
Epoch 4396/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0359 - accuracy:  
0.9597  
Epoch 4397/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0356 - accuracy:  
0.9602  
Epoch 4398/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0348 - accuracy:  
0.9589  
Epoch 4399/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0363 - accuracy:  
0.9590  
Epoch 4400/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0357 - accuracy:  
0.9596  
Epoch 4401/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0356 - accuracy:  
0.9598  
Epoch 4402/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0352 - accuracy:  
0.9590  
Epoch 4403/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0365 - accuracy:  
0.9604  
Epoch 4404/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0357 - accuracy:  
0.9593  
Epoch 4405/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy:  
0.9599  
Epoch 4406/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0353 - accuracy:  
0.9596  
Epoch 4407/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy:  
0.9590  
Epoch 4408/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0358 - accuracy:  
0.9602  
Epoch 4409/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0365 - accuracy:  
0.9612  
Epoch 4410/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0365 - accuracy:  
0.9600  
Epoch 4411/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0358 - accuracy:  
0.9593  
Epoch 4412/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0361 - accuracy:  
0.9612  
Epoch 4413/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0353 - accuracy:  
0.9598  
Epoch 4414/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0354 - accuracy:  
0.9591  
Epoch 4415/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0352 - accuracy:  
0.9591  
Epoch 4416/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0355 - accuracy:  
0.9598  
Epoch 4417/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0361 - accuracy:  
0.9590  
Epoch 4418/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0366 - accuracy:  
0.9591  
Epoch 4419/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0364 - accuracy:  
0.9607  
Epoch 4420/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0377 - accuracy:  
0.9592  
Epoch 4421/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0400 - accuracy:  
0.9590  
Epoch 4422/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0386 - accuracy:  
0.9592  
Epoch 4423/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0380 - accuracy:  
0.9600  
Epoch 4424/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0380 - accuracy:  
0.9603  
Epoch 4425/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0368 - accuracy:  
0.9605  
Epoch 4426/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0370 - accuracy:  
0.9599  
Epoch 4427/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0387 - accuracy:  
0.9598  
Epoch 4428/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0388 - accuracy:  
0.9586  
Epoch 4429/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0371 - accuracy:  
0.9594  
Epoch 4430/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0361 - accuracy:  
0.9587  
Epoch 4431/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0368 - accuracy:  
0.9599  
Epoch 4432/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0363 - accuracy:  
0.9603  
Epoch 4433/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0361 - accuracy:  
0.9596  
Epoch 4434/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0355 - accuracy:  
0.9594  
Epoch 4435/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0356 - accuracy:  
0.9590  
Epoch 4436/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0351 - accuracy:  
0.9594  
Epoch 4437/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0351 - accuracy:  
0.9591  
Epoch 4438/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0356 - accuracy:  
0.9591  
Epoch 4439/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0352 - accuracy:  
0.9600  
Epoch 4440/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy:  
0.9599  
Epoch 4441/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0351 - accuracy:  
0.9595  
Epoch 4442/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0351 - accuracy:  
0.9592  
Epoch 4443/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0353 - accuracy:  
0.9602  
Epoch 4444/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0356 - accuracy:  
0.9600  
Epoch 4445/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0351 - accuracy:  
0.9601  
Epoch 4446/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0352 - accuracy:  
0.9598  
Epoch 4447/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0354 - accuracy:  
0.9598  
Epoch 4448/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy:  
0.9599  
Epoch 4449/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0353 - accuracy:  
0.9589  
Epoch 4450/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0353 - accuracy:  
0.9599  
Epoch 4451/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0352 - accuracy:  
0.9600  
Epoch 4452/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0356 - accuracy:  
0.9602  
Epoch 4453/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0353 - accuracy:  
0.9594  
Epoch 4454/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0356 - accuracy:  
0.9600  
Epoch 4455/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0356 - accuracy:  
0.9596  
Epoch 4456/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0359 - accuracy:  
0.9592  
Epoch 4457/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0359 - accuracy:  
0.9607  
Epoch 4458/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0355 - accuracy:  
0.9599  
Epoch 4459/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0355 - accuracy:  
0.9592  
Epoch 4460/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0352 - accuracy:  
0.9593  
Epoch 4461/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0353 - accuracy:  
0.9596  
Epoch 4462/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0351 - accuracy:  
0.9594  
Epoch 4463/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0355 - accuracy:  
0.9592  
Epoch 4464/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0361 - accuracy:  
0.9607  
Epoch 4465/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0354 - accuracy:  
0.9591  
Epoch 4466/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0354 - accuracy:  
0.9597  
Epoch 4467/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy:  
0.9591  
Epoch 4468/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0353 - accuracy:  
0.9593  
Epoch 4469/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0357 - accuracy:  
0.9599  
Epoch 4470/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0362 - accuracy:  
0.9603  
Epoch 4471/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0365 - accuracy:  
0.9600  
Epoch 4472/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0365 - accuracy:  
0.9594  
Epoch 4473/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0361 - accuracy:  
0.9596  
Epoch 4474/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0357 - accuracy:  
0.9596  
Epoch 4475/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0357 - accuracy:  
0.9596  
Epoch 4476/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0358 - accuracy:  
0.9592  
Epoch 4477/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0354 - accuracy:  
0.9600  
Epoch 4478/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0353 - accuracy:  
0.9589  
Epoch 4479/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0364 - accuracy:  
0.9594  
Epoch 4480/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0361 - accuracy:  
0.9599  
Epoch 4481/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0358 - accuracy:  
0.9602  
Epoch 4482/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0357 - accuracy:  
0.9602  
Epoch 4483/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0363 - accuracy:  
0.9599  
Epoch 4484/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0358 - accuracy:  
0.9591  
Epoch 4485/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0359 - accuracy:  
0.9596  
Epoch 4486/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0354 - accuracy:  
0.9590  
Epoch 4487/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0356 - accuracy:  
0.9599  
Epoch 4488/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy:  
0.9595  
Epoch 4489/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0357 - accuracy:  
0.9600  
Epoch 4490/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0355 - accuracy:  
0.9596  
Epoch 4491/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0354 - accuracy:  
0.9599  
Epoch 4492/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0354 - accuracy:  
0.9595  
Epoch 4493/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0366 - accuracy:  
0.9598  
Epoch 4494/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0379 - accuracy:  
0.9601  
Epoch 4495/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0368 - accuracy:  
0.9594  
Epoch 4496/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0364 - accuracy:  
0.9595  
Epoch 4497/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0369 - accuracy:  
0.9582  
Epoch 4498/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0366 - accuracy:  
0.9588  
Epoch 4499/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0363 - accuracy:  
0.9603  
Epoch 4500/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0367 - accuracy:  
0.9596  
Epoch 4501/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0353 - accuracy:  
0.9596  
Epoch 4502/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0356 - accuracy:  
0.9600  
Epoch 4503/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0362 - accuracy:  
0.9603  
Epoch 4504/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0365 - accuracy:  
0.9585  
Epoch 4505/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0363 - accuracy:  
0.9589  
Epoch 4506/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0364 - accuracy:  
0.9590  
Epoch 4507/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0370 - accuracy:  
0.9592  
Epoch 4508/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0358 - accuracy:  
0.9592  
Epoch 4509/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0359 - accuracy:  
0.9598  
Epoch 4510/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0353 - accuracy:  
0.9592  
Epoch 4511/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0359 - accuracy:  
0.9603  
Epoch 4512/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0365 - accuracy:  
0.9590  
Epoch 4513/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0355 - accuracy:  
0.9601  
Epoch 4514/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0354 - accuracy:  
0.9597  
Epoch 4515/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0358 - accuracy:  
0.9603  
Epoch 4516/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0356 - accuracy:  
0.9596  
Epoch 4517/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0356 - accuracy:  
0.9595  
Epoch 4518/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0364 - accuracy:  
0.9598  
Epoch 4519/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0354 - accuracy:  
0.9600  
Epoch 4520/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0357 - accuracy:  
0.9598  
Epoch 4521/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy:  
0.9592  
Epoch 4522/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0351 - accuracy:  
0.9596  
Epoch 4523/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0348 - accuracy:  
0.9597  
Epoch 4524/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0355 - accuracy:  
0.9601  
Epoch 4525/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy:  
0.9589  
Epoch 4526/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0351 - accuracy:  
0.9596  
Epoch 4527/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy:  
0.9594  
Epoch 4528/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0354 - accuracy:  
0.9604  
Epoch 4529/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0353 - accuracy:  
0.9590  
Epoch 4530/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0352 - accuracy:  
0.9594  
Epoch 4531/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0356 - accuracy:  
0.9588  
Epoch 4532/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0357 - accuracy:  
0.9595  
Epoch 4533/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0351 - accuracy:  
0.9588  
Epoch 4534/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0351 - accuracy:  
0.9594  
Epoch 4535/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0357 - accuracy:  
0.9602  
Epoch 4536/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0351 - accuracy:  
0.9593  
Epoch 4537/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy:  
0.9591  
Epoch 4538/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0361 - accuracy:  
0.9597  
Epoch 4539/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0372 - accuracy:  
0.9591  
Epoch 4540/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0370 - accuracy:  
0.9588  
Epoch 4541/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0363 - accuracy:  
0.9593  
Epoch 4542/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0363 - accuracy:  
0.9598  
Epoch 4543/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0364 - accuracy:  
0.9584  
Epoch 4544/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy:  
 0.9594  
 Epoch 4545/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0355 - accuracy:  
 0.9593  
 Epoch 4546/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0355 - accuracy:  
 0.9601  
 Epoch 4547/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0359 - accuracy:  
 0.9602  
 Epoch 4548/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0352 - accuracy:  
 0.9590  
 Epoch 4549/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy:  
 0.9592  
 Epoch 4550/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy:  
 0.9594  
 Epoch 4551/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0358 - accuracy:  
 0.9606  
 Epoch 4552/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0362 - accuracy:  
 0.9599  
 Epoch 4553/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0356 - accuracy:  
 0.9596  
 Epoch 4554/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0349 - accuracy:  
 0.9587  
 Epoch 4555/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0354 - accuracy:  
 0.9603  
 Epoch 4556/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy:  
 0.9586  
 Epoch 4557/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0352 - accuracy:  
 0.9592  
 Epoch 4558/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0353 - accuracy:  
 0.9602  
 Epoch 4559/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy:  
 0.9587  
 Epoch 4560/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0357 - accuracy:  
0.9604  
Epoch 4561/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0355 - accuracy:  
0.9602  
Epoch 4562/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0353 - accuracy:  
0.9599  
Epoch 4563/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0352 - accuracy:  
0.9589  
Epoch 4564/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0356 - accuracy:  
0.9603  
Epoch 4565/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0349 - accuracy:  
0.9599  
Epoch 4566/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0355 - accuracy:  
0.9595  
Epoch 4567/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy:  
0.9594  
Epoch 4568/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0352 - accuracy:  
0.9607  
Epoch 4569/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0357 - accuracy:  
0.9601  
Epoch 4570/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy:  
0.9588  
Epoch 4571/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0354 - accuracy:  
0.9599  
Epoch 4572/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0352 - accuracy:  
0.9585  
Epoch 4573/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0352 - accuracy:  
0.9604  
Epoch 4574/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0354 - accuracy:  
0.9591  
Epoch 4575/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0360 - accuracy:  
0.9592  
Epoch 4576/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0363 - accuracy: 0.9585  
Epoch 4577/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0363 - accuracy: 0.9601  
Epoch 4578/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0361 - accuracy: 0.9596  
Epoch 4579/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0369 - accuracy: 0.9604  
Epoch 4580/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0368 - accuracy: 0.9598  
Epoch 4581/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0354 - accuracy: 0.9593  
Epoch 4582/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0360 - accuracy: 0.9596  
Epoch 4583/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0367 - accuracy: 0.9591  
Epoch 4584/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0354 - accuracy: 0.9591  
Epoch 4585/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0360 - accuracy: 0.9599  
Epoch 4586/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0356 - accuracy: 0.9594  
Epoch 4587/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0357 - accuracy: 0.9599  
Epoch 4588/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0357 - accuracy: 0.9594  
Epoch 4589/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0354 - accuracy: 0.9589  
Epoch 4590/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0353 - accuracy: 0.9591  
Epoch 4591/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0352 - accuracy: 0.9597  
Epoch 4592/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy:  
0.9597  
Epoch 4593/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0352 - accuracy:  
0.9589  
Epoch 4594/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0349 - accuracy:  
0.9600  
Epoch 4595/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0355 - accuracy:  
0.9603  
Epoch 4596/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0354 - accuracy:  
0.9595  
Epoch 4597/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0356 - accuracy:  
0.9591  
Epoch 4598/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0353 - accuracy:  
0.9585  
Epoch 4599/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0353 - accuracy:  
0.9588  
Epoch 4600/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0351 - accuracy:  
0.9589  
Epoch 4601/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0354 - accuracy:  
0.9594  
Epoch 4602/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0354 - accuracy:  
0.9602  
Epoch 4603/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0350 - accuracy:  
0.9591  
Epoch 4604/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy:  
0.9585  
Epoch 4605/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0353 - accuracy:  
0.9584  
Epoch 4606/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy:  
0.9588  
Epoch 4607/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0354 - accuracy:  
0.9606  
Epoch 4608/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0352 - accuracy:  
0.9601  
Epoch 4609/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy:  
0.9595  
Epoch 4610/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0354 - accuracy:  
0.9596  
Epoch 4611/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0350 - accuracy:  
0.9592  
Epoch 4612/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0353 - accuracy:  
0.9597  
Epoch 4613/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy:  
0.9594  
Epoch 4614/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy:  
0.9604  
Epoch 4615/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0350 - accuracy:  
0.9588  
Epoch 4616/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0349 - accuracy:  
0.9592  
Epoch 4617/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy:  
0.9593  
Epoch 4618/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy:  
0.9594  
Epoch 4619/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy:  
0.9590  
Epoch 4620/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy:  
0.9589  
Epoch 4621/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0351 - accuracy:  
0.9590  
Epoch 4622/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy:  
0.9590  
Epoch 4623/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0358 - accuracy:  
0.9587  
Epoch 4624/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0356 - accuracy:  
0.9588  
Epoch 4625/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0354 - accuracy:  
0.9595  
Epoch 4626/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy:  
0.9592  
Epoch 4627/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0356 - accuracy:  
0.9586  
Epoch 4628/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0352 - accuracy:  
0.9591  
Epoch 4629/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0348 - accuracy:  
0.9597  
Epoch 4630/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy:  
0.9605  
Epoch 4631/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0351 - accuracy:  
0.9596  
Epoch 4632/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0353 - accuracy:  
0.9586  
Epoch 4633/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0350 - accuracy:  
0.9593  
Epoch 4634/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0351 - accuracy:  
0.9593  
Epoch 4635/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0354 - accuracy:  
0.9588  
Epoch 4636/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0355 - accuracy:  
0.9596  
Epoch 4637/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0353 - accuracy:  
0.9591  
Epoch 4638/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0353 - accuracy:  
0.9590  
Epoch 4639/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0352 - accuracy:  
0.9599  
Epoch 4640/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy: 0.9591  
Epoch 4641/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy: 0.9584  
Epoch 4642/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0355 - accuracy: 0.9598  
Epoch 4643/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0352 - accuracy: 0.9599  
Epoch 4644/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0352 - accuracy: 0.9591  
Epoch 4645/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0356 - accuracy: 0.9586  
Epoch 4646/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0351 - accuracy: 0.9590  
Epoch 4647/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0355 - accuracy: 0.9589  
Epoch 4648/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0361 - accuracy: 0.9596  
Epoch 4649/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0357 - accuracy: 0.9604  
Epoch 4650/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0360 - accuracy: 0.9591  
Epoch 4651/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0368 - accuracy: 0.9597  
Epoch 4652/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0364 - accuracy: 0.9604  
Epoch 4653/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0372 - accuracy: 0.9591  
Epoch 4654/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0362 - accuracy: 0.9586  
Epoch 4655/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0359 - accuracy: 0.9598  
Epoch 4656/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0354 - accuracy:  
0.9595  
Epoch 4657/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0355 - accuracy:  
0.9587  
Epoch 4658/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0354 - accuracy:  
0.9607  
Epoch 4659/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0353 - accuracy:  
0.9591  
Epoch 4660/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy:  
0.9593  
Epoch 4661/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy:  
0.9590  
Epoch 4662/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0355 - accuracy:  
0.9599  
Epoch 4663/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0355 - accuracy:  
0.9597  
Epoch 4664/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0353 - accuracy:  
0.9587  
Epoch 4665/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0353 - accuracy:  
0.9601  
Epoch 4666/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0347 - accuracy:  
0.9603  
Epoch 4667/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0347 - accuracy:  
0.9596  
Epoch 4668/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0353 - accuracy:  
0.9597  
Epoch 4669/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0357 - accuracy:  
0.9590  
Epoch 4670/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy:  
0.9589  
Epoch 4671/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy:  
0.9596  
Epoch 4672/100000



2/2 [=====] - 0s 120ms/step - loss: 0.0350 - accuracy:  
0.9591  
Epoch 4673/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy:  
0.9590  
Epoch 4674/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0351 - accuracy:  
0.9593  
Epoch 4675/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0351 - accuracy:  
0.9596  
Epoch 4676/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0351 - accuracy:  
0.9597  
Epoch 4677/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0345 - accuracy:  
0.9588  
Epoch 4678/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0351 - accuracy:  
0.9589  
Epoch 4679/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy:  
0.9593  
Epoch 4680/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy:  
0.9591  
Epoch 4681/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0358 - accuracy:  
0.9597  
Epoch 4682/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy:  
0.9587  
Epoch 4683/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0351 - accuracy:  
0.9591  
Epoch 4684/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0358 - accuracy:  
0.9605  
Epoch 4685/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0362 - accuracy:  
0.9597  
Epoch 4686/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0363 - accuracy:  
0.9600  
Epoch 4687/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0362 - accuracy:  
0.9602  
Epoch 4688/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0367 - accuracy:  
0.9585  
Epoch 4689/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0388 - accuracy:  
0.9581  
Epoch 4690/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0369 - accuracy:  
0.9595  
Epoch 4691/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0360 - accuracy:  
0.9582  
Epoch 4692/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0360 - accuracy:  
0.9579  
Epoch 4693/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0364 - accuracy:  
0.9586  
Epoch 4694/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0361 - accuracy:  
0.9592  
Epoch 4695/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0362 - accuracy:  
0.9597  
Epoch 4696/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0351 - accuracy:  
0.9584  
Epoch 4697/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0364 - accuracy:  
0.9593  
Epoch 4698/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0353 - accuracy:  
0.9599  
Epoch 4699/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0356 - accuracy:  
0.9593  
Epoch 4700/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0352 - accuracy:  
0.9592  
Epoch 4701/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0358 - accuracy:  
0.9591  
Epoch 4702/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0370 - accuracy:  
0.9593  
Epoch 4703/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0358 - accuracy:  
0.9598  
Epoch 4704/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0352 - accuracy:  
0.9596  
Epoch 4705/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0355 - accuracy:  
0.9589  
Epoch 4706/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0352 - accuracy:  
0.9590  
Epoch 4707/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0351 - accuracy:  
0.9592  
Epoch 4708/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0346 - accuracy:  
0.9594  
Epoch 4709/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy:  
0.9588  
Epoch 4710/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0355 - accuracy:  
0.9590  
Epoch 4711/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy:  
0.9603  
Epoch 4712/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0351 - accuracy:  
0.9594  
Epoch 4713/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0349 - accuracy:  
0.9589  
Epoch 4714/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy:  
0.9589  
Epoch 4715/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy:  
0.9606  
Epoch 4716/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0346 - accuracy:  
0.9585  
Epoch 4717/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy:  
0.9595  
Epoch 4718/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy:  
0.9592  
Epoch 4719/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0353 - accuracy:  
0.9596  
Epoch 4720/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0353 - accuracy:  
0.9593  
Epoch 4721/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0354 - accuracy:  
0.9603  
Epoch 4722/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0349 - accuracy:  
0.9595  
Epoch 4723/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0348 - accuracy:  
0.9593  
Epoch 4724/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0351 - accuracy:  
0.9594  
Epoch 4725/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0351 - accuracy:  
0.9589  
Epoch 4726/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0358 - accuracy:  
0.9601  
Epoch 4727/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0354 - accuracy:  
0.9592  
Epoch 4728/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy:  
0.9589  
Epoch 4729/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0355 - accuracy:  
0.9599  
Epoch 4730/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0360 - accuracy:  
0.9594  
Epoch 4731/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0352 - accuracy:  
0.9606  
Epoch 4732/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy:  
0.9591  
Epoch 4733/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0351 - accuracy:  
0.9596  
Epoch 4734/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0351 - accuracy:  
0.9596  
Epoch 4735/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0349 - accuracy:  
0.9590  
Epoch 4736/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0352 - accuracy:  
 0.9596  
 Epoch 4737/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0352 - accuracy:  
 0.9593  
 Epoch 4738/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0357 - accuracy:  
 0.9605  
 Epoch 4739/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy:  
 0.9598  
 Epoch 4740/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0349 - accuracy:  
 0.9593  
 Epoch 4741/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy:  
 0.9595  
 Epoch 4742/100000  
 2/2 [=====] - 0s 121ms/step - loss: 0.0354 - accuracy:  
 0.9591  
 Epoch 4743/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0354 - accuracy:  
 0.9589  
 Epoch 4744/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy:  
 0.9597  
 Epoch 4745/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0347 - accuracy:  
 0.9595  
 Epoch 4746/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0351 - accuracy:  
 0.9595  
 Epoch 4747/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy:  
 0.9599  
 Epoch 4748/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0353 - accuracy:  
 0.9597  
 Epoch 4749/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0354 - accuracy:  
 0.9598  
 Epoch 4750/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy:  
 0.9592  
 Epoch 4751/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0350 - accuracy:  
 0.9596  
 Epoch 4752/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0360 - accuracy: 0.9600  
Epoch 4753/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0356 - accuracy: 0.9589  
Epoch 4754/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0356 - accuracy: 0.9602  
Epoch 4755/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0365 - accuracy: 0.9593  
Epoch 4756/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0352 - accuracy: 0.9592  
Epoch 4757/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0351 - accuracy: 0.9599  
Epoch 4758/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy: 0.9600  
Epoch 4759/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0354 - accuracy: 0.9606  
Epoch 4760/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0352 - accuracy: 0.9597  
Epoch 4761/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0353 - accuracy: 0.9608  
Epoch 4762/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy: 0.9598  
Epoch 4763/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy: 0.9598  
Epoch 4764/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy: 0.9584  
Epoch 4765/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0346 - accuracy: 0.9599  
Epoch 4766/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy: 0.9598  
Epoch 4767/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0352 - accuracy: 0.9602  
Epoch 4768/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy:  
0.9590  
Epoch 4769/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0354 - accuracy:  
0.9594  
Epoch 4770/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0352 - accuracy:  
0.9595  
Epoch 4771/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy:  
0.9589  
Epoch 4772/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0351 - accuracy:  
0.9597  
Epoch 4773/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0354 - accuracy:  
0.9601  
Epoch 4774/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy:  
0.9600  
Epoch 4775/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy:  
0.9594  
Epoch 4776/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy:  
0.9593  
Epoch 4777/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy:  
0.9595  
Epoch 4778/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0345 - accuracy:  
0.9585  
Epoch 4779/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy:  
0.9595  
Epoch 4780/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy:  
0.9592  
Epoch 4781/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0348 - accuracy:  
0.9586  
Epoch 4782/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0353 - accuracy:  
0.9597  
Epoch 4783/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0360 - accuracy:  
0.9591  
Epoch 4784/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0360 - accuracy: 0.9600  
 Epoch 4785/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0355 - accuracy: 0.9595  
 Epoch 4786/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0360 - accuracy: 0.9597  
 Epoch 4787/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0366 - accuracy: 0.9597  
 Epoch 4788/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0355 - accuracy: 0.9585  
 Epoch 4789/100000  
 2/2 [=====] - 0s 122ms/step - loss: 0.0365 - accuracy: 0.9589  
 Epoch 4790/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0360 - accuracy: 0.9594  
 Epoch 4791/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0360 - accuracy: 0.9601  
 Epoch 4792/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0364 - accuracy: 0.9588  
 Epoch 4793/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0358 - accuracy: 0.9586  
 Epoch 4794/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0360 - accuracy: 0.9592  
 Epoch 4795/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0352 - accuracy: 0.9587  
 Epoch 4796/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0360 - accuracy: 0.9590  
 Epoch 4797/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0345 - accuracy: 0.9590  
 Epoch 4798/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy: 0.9595  
 Epoch 4799/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy: 0.9590  
 Epoch 4800/100000



2/2 [=====] - 0s 114ms/step - loss: 0.0347 - accuracy:  
0.9591  
Epoch 4801/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy:  
0.9595  
Epoch 4802/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy:  
0.9598  
Epoch 4803/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy:  
0.9597  
Epoch 4804/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0352 - accuracy:  
0.9598  
Epoch 4805/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0354 - accuracy:  
0.9599  
Epoch 4806/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy:  
0.9597  
Epoch 4807/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0347 - accuracy:  
0.9591  
Epoch 4808/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0346 - accuracy:  
0.9599  
Epoch 4809/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0362 - accuracy:  
0.9599  
Epoch 4810/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0350 - accuracy:  
0.9598  
Epoch 4811/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0361 - accuracy:  
0.9600  
Epoch 4812/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0362 - accuracy:  
0.9591  
Epoch 4813/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0358 - accuracy:  
0.9597  
Epoch 4814/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0352 - accuracy:  
0.9591  
Epoch 4815/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0354 - accuracy:  
0.9599  
Epoch 4816/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0351 - accuracy:  
0.9593  
Epoch 4817/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0351 - accuracy:  
0.9596  
Epoch 4818/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy:  
0.9601  
Epoch 4819/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy:  
0.9595  
Epoch 4820/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy:  
0.9585  
Epoch 4821/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0351 - accuracy:  
0.9596  
Epoch 4822/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy:  
0.9600  
Epoch 4823/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy:  
0.9590  
Epoch 4824/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0354 - accuracy:  
0.9587  
Epoch 4825/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy:  
0.9595  
Epoch 4826/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0354 - accuracy:  
0.9592  
Epoch 4827/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0354 - accuracy:  
0.9592  
Epoch 4828/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0354 - accuracy:  
0.9596  
Epoch 4829/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0359 - accuracy:  
0.9605  
Epoch 4830/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0356 - accuracy:  
0.9597  
Epoch 4831/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0353 - accuracy:  
0.9596  
Epoch 4832/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0355 - accuracy: 0.9602  
 Epoch 4833/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy: 0.9586  
 Epoch 4834/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy: 0.9584  
 Epoch 4835/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0350 - accuracy: 0.9598  
 Epoch 4836/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy: 0.9602  
 Epoch 4837/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy: 0.9597  
 Epoch 4838/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0350 - accuracy: 0.9590  
 Epoch 4839/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0355 - accuracy: 0.9600  
 Epoch 4840/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0351 - accuracy: 0.9597  
 Epoch 4841/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy: 0.9591  
 Epoch 4842/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0354 - accuracy: 0.9588  
 Epoch 4843/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0350 - accuracy: 0.9597  
 Epoch 4844/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0351 - accuracy: 0.9594  
 Epoch 4845/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0351 - accuracy: 0.9592  
 Epoch 4846/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0345 - accuracy: 0.9589  
 Epoch 4847/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0348 - accuracy: 0.9593  
 Epoch 4848/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0361 - accuracy:  
0.9592  
Epoch 4849/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy:  
0.9594  
Epoch 4850/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0348 - accuracy:  
0.9601  
Epoch 4851/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy:  
0.9598  
Epoch 4852/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0351 - accuracy:  
0.9600  
Epoch 4853/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy:  
0.9600  
Epoch 4854/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0346 - accuracy:  
0.9596  
Epoch 4855/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0355 - accuracy:  
0.9604  
Epoch 4856/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0353 - accuracy:  
0.9607  
Epoch 4857/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy:  
0.9586  
Epoch 4858/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy:  
0.9599  
Epoch 4859/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0356 - accuracy:  
0.9593  
Epoch 4860/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0363 - accuracy:  
0.9599  
Epoch 4861/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy:  
0.9599  
Epoch 4862/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0367 - accuracy:  
0.9596  
Epoch 4863/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0363 - accuracy:  
0.9586  
Epoch 4864/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0358 - accuracy:  
0.9587  
Epoch 4865/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0356 - accuracy:  
0.9598  
Epoch 4866/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0350 - accuracy:  
0.9596  
Epoch 4867/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0355 - accuracy:  
0.9600  
Epoch 4868/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy:  
0.9590  
Epoch 4869/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0353 - accuracy:  
0.9603  
Epoch 4870/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0357 - accuracy:  
0.9596  
Epoch 4871/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy:  
0.9599  
Epoch 4872/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy:  
0.9604  
Epoch 4873/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0354 - accuracy:  
0.9589  
Epoch 4874/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0353 - accuracy:  
0.9587  
Epoch 4875/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy:  
0.9586  
Epoch 4876/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy:  
0.9594  
Epoch 4877/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy:  
0.9603  
Epoch 4878/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy:  
0.9598  
Epoch 4879/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy:  
0.9601  
Epoch 4880/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy:  
0.9595  
Epoch 4881/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0353 - accuracy:  
0.9600  
Epoch 4882/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy:  
0.9598  
Epoch 4883/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0352 - accuracy:  
0.9603  
Epoch 4884/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy:  
0.9607  
Epoch 4885/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0353 - accuracy:  
0.9593  
Epoch 4886/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0364 - accuracy:  
0.9602  
Epoch 4887/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy:  
0.9584  
Epoch 4888/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0367 - accuracy:  
0.9598  
Epoch 4889/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0364 - accuracy:  
0.9604  
Epoch 4890/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0353 - accuracy:  
0.9596  
Epoch 4891/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0359 - accuracy:  
0.9604  
Epoch 4892/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0357 - accuracy:  
0.9589  
Epoch 4893/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0351 - accuracy:  
0.9599  
Epoch 4894/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0351 - accuracy:  
0.9589  
Epoch 4895/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy:  
0.9600  
Epoch 4896/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy: 0.9584  
Epoch 4897/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0351 - accuracy: 0.9596  
Epoch 4898/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy: 0.9599  
Epoch 4899/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0353 - accuracy: 0.9595  
Epoch 4900/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0351 - accuracy: 0.9603  
Epoch 4901/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy: 0.9597  
Epoch 4902/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy: 0.9605  
Epoch 4903/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy: 0.9609  
Epoch 4904/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy: 0.9599  
Epoch 4905/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0352 - accuracy: 0.9605  
Epoch 4906/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0359 - accuracy: 0.9592  
Epoch 4907/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy: 0.9599  
Epoch 4908/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0353 - accuracy: 0.9589  
Epoch 4909/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0374 - accuracy: 0.9606  
Epoch 4910/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0364 - accuracy: 0.9600  
Epoch 4911/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0357 - accuracy: 0.9597  
Epoch 4912/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0361 - accuracy: 0.9597  
 Epoch 4913/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0364 - accuracy: 0.9605  
 Epoch 4914/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0363 - accuracy: 0.9591  
 Epoch 4915/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0360 - accuracy: 0.9596  
 Epoch 4916/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0358 - accuracy: 0.9597  
 Epoch 4917/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy: 0.9601  
 Epoch 4918/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0358 - accuracy: 0.9594  
 Epoch 4919/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0353 - accuracy: 0.9599  
 Epoch 4920/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0362 - accuracy: 0.9597  
 Epoch 4921/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0357 - accuracy: 0.9596  
 Epoch 4922/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0348 - accuracy: 0.9595  
 Epoch 4923/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0353 - accuracy: 0.9605  
 Epoch 4924/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0352 - accuracy: 0.9602  
 Epoch 4925/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0353 - accuracy: 0.9594  
 Epoch 4926/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0352 - accuracy: 0.9608  
 Epoch 4927/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0357 - accuracy: 0.9599  
 Epoch 4928/100000



2/2 [=====] - 0s 116ms/step - loss: 0.0348 - accuracy: 0.9600  
Epoch 4929/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0347 - accuracy: 0.9591  
Epoch 4930/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy: 0.9596  
Epoch 4931/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0352 - accuracy: 0.9601  
Epoch 4932/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy: 0.9596  
Epoch 4933/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0348 - accuracy: 0.9588  
Epoch 4934/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy: 0.9598  
Epoch 4935/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy: 0.9593  
Epoch 4936/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy: 0.9590  
Epoch 4937/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy: 0.9594  
Epoch 4938/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0349 - accuracy: 0.9595  
Epoch 4939/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0347 - accuracy: 0.9601  
Epoch 4940/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy: 0.9594  
Epoch 4941/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0353 - accuracy: 0.9603  
Epoch 4942/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0351 - accuracy: 0.9594  
Epoch 4943/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0342 - accuracy: 0.9591  
Epoch 4944/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0353 - accuracy: 0.9592  
Epoch 4945/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy: 0.9592  
Epoch 4946/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0353 - accuracy: 0.9596  
Epoch 4947/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0355 - accuracy: 0.9594  
Epoch 4948/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy: 0.9592  
Epoch 4949/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0345 - accuracy: 0.9594  
Epoch 4950/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy: 0.9597  
Epoch 4951/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy: 0.9595  
Epoch 4952/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0348 - accuracy: 0.9591  
Epoch 4953/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0352 - accuracy: 0.9608  
Epoch 4954/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0362 - accuracy: 0.9603  
Epoch 4955/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0355 - accuracy: 0.9596  
Epoch 4956/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy: 0.9592  
Epoch 4957/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy: 0.9596  
Epoch 4958/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0349 - accuracy: 0.9589  
Epoch 4959/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0354 - accuracy: 0.9594  
Epoch 4960/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0352 - accuracy:  
0.9597  
Epoch 4961/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0354 - accuracy:  
0.9593  
Epoch 4962/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy:  
0.9593  
Epoch 4963/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0349 - accuracy:  
0.9602  
Epoch 4964/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy:  
0.9602  
Epoch 4965/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0357 - accuracy:  
0.9600  
Epoch 4966/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy:  
0.9591  
Epoch 4967/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0354 - accuracy:  
0.9599  
Epoch 4968/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy:  
0.9591  
Epoch 4969/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0343 - accuracy:  
0.9592  
Epoch 4970/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy:  
0.9601  
Epoch 4971/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy:  
0.9593  
Epoch 4972/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy:  
0.9600  
Epoch 4973/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy:  
0.9595  
Epoch 4974/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy:  
0.9592  
Epoch 4975/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy:  
0.9598  
Epoch 4976/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy: 0.9595  
 Epoch 4977/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy: 0.9595  
 Epoch 4978/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0355 - accuracy: 0.9586  
 Epoch 4979/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy: 0.9595  
 Epoch 4980/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0351 - accuracy: 0.9592  
 Epoch 4981/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0353 - accuracy: 0.9601  
 Epoch 4982/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0351 - accuracy: 0.9606  
 Epoch 4983/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0355 - accuracy: 0.9589  
 Epoch 4984/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0358 - accuracy: 0.9601  
 Epoch 4985/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0353 - accuracy: 0.9599  
 Epoch 4986/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0354 - accuracy: 0.9609  
 Epoch 4987/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0351 - accuracy: 0.9598  
 Epoch 4988/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0350 - accuracy: 0.9605  
 Epoch 4989/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0353 - accuracy: 0.9599  
 Epoch 4990/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0352 - accuracy: 0.9599  
 Epoch 4991/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy: 0.9593  
 Epoch 4992/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0345 - accuracy: 0.9593  
 Epoch 4993/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0354 - accuracy: 0.9599  
 Epoch 4994/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy: 0.9601  
 Epoch 4995/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0345 - accuracy: 0.9599  
 Epoch 4996/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy: 0.9589  
 Epoch 4997/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy: 0.9589  
 Epoch 4998/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0351 - accuracy: 0.9595  
 Epoch 4999/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy: 0.9592  
 Epoch 5000/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0356 - accuracy: 0.9601  
 Epoch 5001/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0353 - accuracy: 0.9603  
 Epoch 5002/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy: 0.9592  
 Epoch 5003/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0369 - accuracy: 0.9596  
 Epoch 5004/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0357 - accuracy: 0.9601  
 Epoch 5005/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0365 - accuracy: 0.9602  
 Epoch 5006/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0368 - accuracy: 0.9598  
 Epoch 5007/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0353 - accuracy: 0.9598  
 Epoch 5008/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy:  
0.9593  
Epoch 5009/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy:  
0.9597  
Epoch 5010/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy:  
0.9597  
Epoch 5011/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy:  
0.9592  
Epoch 5012/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy:  
0.9584  
Epoch 5013/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0353 - accuracy:  
0.9606  
Epoch 5014/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0359 - accuracy:  
0.9603  
Epoch 5015/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy:  
0.9593  
Epoch 5016/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy:  
0.9601  
Epoch 5017/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0354 - accuracy:  
0.9602  
Epoch 5018/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0346 - accuracy:  
0.9603  
Epoch 5019/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy:  
0.9593  
Epoch 5020/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy:  
0.9597  
Epoch 5021/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0346 - accuracy:  
0.9591  
Epoch 5022/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0353 - accuracy:  
0.9597  
Epoch 5023/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0351 - accuracy:  
0.9603  
Epoch 5024/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0356 - accuracy: 0.9599  
 Epoch 5025/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0354 - accuracy: 0.9592  
 Epoch 5026/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy: 0.9593  
 Epoch 5027/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0354 - accuracy: 0.9592  
 Epoch 5028/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0359 - accuracy: 0.9590  
 Epoch 5029/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy: 0.9595  
 Epoch 5030/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy: 0.9601  
 Epoch 5031/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0351 - accuracy: 0.9598  
 Epoch 5032/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy: 0.9605  
 Epoch 5033/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0349 - accuracy: 0.9592  
 Epoch 5034/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy: 0.9597  
 Epoch 5035/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0354 - accuracy: 0.9595  
 Epoch 5036/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy: 0.9603  
 Epoch 5037/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy: 0.9598  
 Epoch 5038/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy: 0.9595  
 Epoch 5039/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0363 - accuracy: 0.9594  
 Epoch 5040/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy: 0.9586  
 Epoch 5041/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy: 0.9594  
 Epoch 5042/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0355 - accuracy: 0.9595  
 Epoch 5043/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0360 - accuracy: 0.9601  
 Epoch 5044/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy: 0.9600  
 Epoch 5045/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0349 - accuracy: 0.9589  
 Epoch 5046/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0344 - accuracy: 0.9596  
 Epoch 5047/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy: 0.9600  
 Epoch 5048/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy: 0.9607  
 Epoch 5049/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0351 - accuracy: 0.9600  
 Epoch 5050/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0355 - accuracy: 0.9591  
 Epoch 5051/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0355 - accuracy: 0.9597  
 Epoch 5052/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0365 - accuracy: 0.9594  
 Epoch 5053/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0364 - accuracy: 0.9606  
 Epoch 5054/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0362 - accuracy: 0.9594  
 Epoch 5055/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0360 - accuracy: 0.9599  
 Epoch 5056/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0370 - accuracy: 0.9590  
 Epoch 5057/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0353 - accuracy: 0.9599  
 Epoch 5058/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy: 0.9592  
 Epoch 5059/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0349 - accuracy: 0.9594  
 Epoch 5060/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0350 - accuracy: 0.9608  
 Epoch 5061/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy: 0.9598  
 Epoch 5062/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0351 - accuracy: 0.9600  
 Epoch 5063/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy: 0.9600  
 Epoch 5064/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy: 0.9608  
 Epoch 5065/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy: 0.9594  
 Epoch 5066/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy: 0.9597  
 Epoch 5067/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0348 - accuracy: 0.9601  
 Epoch 5068/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy: 0.9594  
 Epoch 5069/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy: 0.9595  
 Epoch 5070/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0346 - accuracy: 0.9589  
 Epoch 5071/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy: 0.9594  
 Epoch 5072/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy:  
0.9606  
Epoch 5073/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0356 - accuracy:  
0.9599  
Epoch 5074/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0350 - accuracy:  
0.9597  
Epoch 5075/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0352 - accuracy:  
0.9590  
Epoch 5076/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0352 - accuracy:  
0.9599  
Epoch 5077/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy:  
0.9597  
Epoch 5078/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0356 - accuracy:  
0.9598  
Epoch 5079/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0352 - accuracy:  
0.9598  
Epoch 5080/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0349 - accuracy:  
0.9595  
Epoch 5081/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy:  
0.9603  
Epoch 5082/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy:  
0.9607  
Epoch 5083/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy:  
0.9594  
Epoch 5084/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy:  
0.9592  
Epoch 5085/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0346 - accuracy:  
0.9591  
Epoch 5086/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0359 - accuracy:  
0.9593  
Epoch 5087/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy:  
0.9606  
Epoch 5088/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0361 - accuracy: 0.9595  
 Epoch 5089/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0360 - accuracy: 0.9594  
 Epoch 5090/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0351 - accuracy: 0.9596  
 Epoch 5091/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy: 0.9594  
 Epoch 5092/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0354 - accuracy: 0.9603  
 Epoch 5093/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy: 0.9591  
 Epoch 5094/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0349 - accuracy: 0.9593  
 Epoch 5095/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0351 - accuracy: 0.9602  
 Epoch 5096/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0352 - accuracy: 0.9606  
 Epoch 5097/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0345 - accuracy: 0.9594  
 Epoch 5098/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy: 0.9592  
 Epoch 5099/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0349 - accuracy: 0.9605  
 Epoch 5100/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy: 0.9599  
 Epoch 5101/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy: 0.9599  
 Epoch 5102/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy: 0.9591  
 Epoch 5103/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0358 - accuracy: 0.9592  
 Epoch 5104/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0342 - accuracy:  
0.9590  
Epoch 5105/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0347 - accuracy:  
0.9598  
Epoch 5106/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0346 - accuracy:  
0.9589  
Epoch 5107/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy:  
0.9591  
Epoch 5108/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy:  
0.9590  
Epoch 5109/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy:  
0.9598  
Epoch 5110/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy:  
0.9602  
Epoch 5111/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
0.9601  
Epoch 5112/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0344 - accuracy:  
0.9596  
Epoch 5113/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy:  
0.9592  
Epoch 5114/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0347 - accuracy:  
0.9602  
Epoch 5115/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0351 - accuracy:  
0.9601  
Epoch 5116/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy:  
0.9592  
Epoch 5117/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0365 - accuracy:  
0.9585  
Epoch 5118/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy:  
0.9593  
Epoch 5119/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0352 - accuracy:  
0.9593  
Epoch 5120/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy:  
0.9591  
Epoch 5121/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0348 - accuracy:  
0.9587  
Epoch 5122/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0343 - accuracy:  
0.9598  
Epoch 5123/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy:  
0.9592  
Epoch 5124/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0356 - accuracy:  
0.9599  
Epoch 5125/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy:  
0.9595  
Epoch 5126/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy:  
0.9597  
Epoch 5127/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0350 - accuracy:  
0.9600  
Epoch 5128/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0349 - accuracy:  
0.9601  
Epoch 5129/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy:  
0.9602  
Epoch 5130/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0356 - accuracy:  
0.9598  
Epoch 5131/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy:  
0.9601  
Epoch 5132/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0355 - accuracy:  
0.9593  
Epoch 5133/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0354 - accuracy:  
0.9594  
Epoch 5134/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy:  
0.9595  
Epoch 5135/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0353 - accuracy:  
0.9601  
Epoch 5136/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0353 - accuracy:  
0.9589  
Epoch 5137/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy:  
0.9602  
Epoch 5138/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0349 - accuracy:  
0.9601  
Epoch 5139/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy:  
0.9601  
Epoch 5140/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0355 - accuracy:  
0.9613  
Epoch 5141/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0352 - accuracy:  
0.9597  
Epoch 5142/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0356 - accuracy:  
0.9603  
Epoch 5143/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy:  
0.9593  
Epoch 5144/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0354 - accuracy:  
0.9602  
Epoch 5145/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0347 - accuracy:  
0.9597  
Epoch 5146/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy:  
0.9600  
Epoch 5147/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0353 - accuracy:  
0.9597  
Epoch 5148/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0347 - accuracy:  
0.9594  
Epoch 5149/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy:  
0.9596  
Epoch 5150/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0352 - accuracy:  
0.9601  
Epoch 5151/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy:  
0.9585  
Epoch 5152/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy: 0.9597  
Epoch 5153/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0362 - accuracy: 0.9595  
Epoch 5154/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0352 - accuracy: 0.9598  
Epoch 5155/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0356 - accuracy: 0.9601  
Epoch 5156/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0356 - accuracy: 0.9590  
Epoch 5157/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0355 - accuracy: 0.9599  
Epoch 5158/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy: 0.9596  
Epoch 5159/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0346 - accuracy: 0.9596  
Epoch 5160/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0352 - accuracy: 0.9609  
Epoch 5161/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy: 0.9591  
Epoch 5162/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0351 - accuracy: 0.9598  
Epoch 5163/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy: 0.9592  
Epoch 5164/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0352 - accuracy: 0.9600  
Epoch 5165/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy: 0.9596  
Epoch 5166/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy: 0.9597  
Epoch 5167/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy: 0.9597  
Epoch 5168/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy:  
0.9590  
Epoch 5169/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0344 - accuracy:  
0.9594  
Epoch 5170/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
0.9594  
Epoch 5171/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy:  
0.9596  
Epoch 5172/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0353 - accuracy:  
0.9600  
Epoch 5173/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0353 - accuracy:  
0.9605  
Epoch 5174/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0349 - accuracy:  
0.9603  
Epoch 5175/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0359 - accuracy:  
0.9599  
Epoch 5176/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0351 - accuracy:  
0.9597  
Epoch 5177/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
0.9591  
Epoch 5178/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy:  
0.9600  
Epoch 5179/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0341 - accuracy:  
0.9591  
Epoch 5180/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0351 - accuracy:  
0.9588  
Epoch 5181/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0353 - accuracy:  
0.9597  
Epoch 5182/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0356 - accuracy:  
0.9600  
Epoch 5183/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0371 - accuracy:  
0.9596  
Epoch 5184/100000



2/2 [=====] - 0s 114ms/step - loss: 0.0351 - accuracy:  
0.9592  
Epoch 5185/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0355 - accuracy:  
0.9604  
Epoch 5186/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy:  
0.9603  
Epoch 5187/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0356 - accuracy:  
0.9593  
Epoch 5188/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0358 - accuracy:  
0.9596  
Epoch 5189/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0354 - accuracy:  
0.9597  
Epoch 5190/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0356 - accuracy:  
0.9596  
Epoch 5191/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0378 - accuracy:  
0.9607  
Epoch 5192/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0367 - accuracy:  
0.9584  
Epoch 5193/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0355 - accuracy:  
0.9601  
Epoch 5194/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0354 - accuracy:  
0.9597  
Epoch 5195/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0365 - accuracy:  
0.9587  
Epoch 5196/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0387 - accuracy:  
0.9592  
Epoch 5197/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0368 - accuracy:  
0.9593  
Epoch 5198/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0360 - accuracy:  
0.9599  
Epoch 5199/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0361 - accuracy:  
0.9605  
Epoch 5200/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0354 - accuracy:  
 0.9592  
 Epoch 5201/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0351 - accuracy:  
 0.9591  
 Epoch 5202/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0351 - accuracy:  
 0.9597  
 Epoch 5203/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy:  
 0.9588  
 Epoch 5204/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy:  
 0.9593  
 Epoch 5205/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0348 - accuracy:  
 0.9591  
 Epoch 5206/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0351 - accuracy:  
 0.9595  
 Epoch 5207/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy:  
 0.9595  
 Epoch 5208/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy:  
 0.9601  
 Epoch 5209/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy:  
 0.9603  
 Epoch 5210/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy:  
 0.9597  
 Epoch 5211/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy:  
 0.9590  
 Epoch 5212/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0344 - accuracy:  
 0.9605  
 Epoch 5213/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0347 - accuracy:  
 0.9599  
 Epoch 5214/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0343 - accuracy:  
 0.9590  
 Epoch 5215/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy:  
 0.9596  
 Epoch 5216/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0347 - accuracy:  
 0.9600  
 Epoch 5217/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0346 - accuracy:  
 0.9597  
 Epoch 5218/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy:  
 0.9594  
 Epoch 5219/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy:  
 0.9598  
 Epoch 5220/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0341 - accuracy:  
 0.9595  
 Epoch 5221/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0350 - accuracy:  
 0.9603  
 Epoch 5222/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0346 - accuracy:  
 0.9594  
 Epoch 5223/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy:  
 0.9598  
 Epoch 5224/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy:  
 0.9596  
 Epoch 5225/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0345 - accuracy:  
 0.9599  
 Epoch 5226/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy:  
 0.9595  
 Epoch 5227/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0342 - accuracy:  
 0.9602  
 Epoch 5228/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
 0.9592  
 Epoch 5229/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0345 - accuracy:  
 0.9593  
 Epoch 5230/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy:  
 0.9597  
 Epoch 5231/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy:  
 0.9606  
 Epoch 5232/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0341 - accuracy:  
0.9598  
Epoch 5233/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy:  
0.9594  
Epoch 5234/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0349 - accuracy:  
0.9587  
Epoch 5235/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0345 - accuracy:  
0.9590  
Epoch 5236/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0349 - accuracy:  
0.9598  
Epoch 5237/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0353 - accuracy:  
0.9601  
Epoch 5238/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy:  
0.9591  
Epoch 5239/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0343 - accuracy:  
0.9593  
Epoch 5240/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy:  
0.9605  
Epoch 5241/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0361 - accuracy:  
0.9599  
Epoch 5242/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0354 - accuracy:  
0.9607  
Epoch 5243/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0351 - accuracy:  
0.9603  
Epoch 5244/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0355 - accuracy:  
0.9596  
Epoch 5245/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0369 - accuracy:  
0.9608  
Epoch 5246/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0355 - accuracy:  
0.9593  
Epoch 5247/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0354 - accuracy:  
0.9597  
Epoch 5248/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy:  
0.9595  
Epoch 5249/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0352 - accuracy:  
0.9593  
Epoch 5250/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0354 - accuracy:  
0.9590  
Epoch 5251/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy:  
0.9593  
Epoch 5252/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0355 - accuracy:  
0.9611  
Epoch 5253/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0352 - accuracy:  
0.9600  
Epoch 5254/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0363 - accuracy:  
0.9599  
Epoch 5255/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0355 - accuracy:  
0.9597  
Epoch 5256/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy:  
0.9600  
Epoch 5257/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0346 - accuracy:  
0.9594  
Epoch 5258/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy:  
0.9590  
Epoch 5259/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy:  
0.9599  
Epoch 5260/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0352 - accuracy:  
0.9595  
Epoch 5261/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy:  
0.9604  
Epoch 5262/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0351 - accuracy:  
0.9602  
Epoch 5263/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0348 - accuracy:  
0.9596  
Epoch 5264/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy: 0.9599  
 Epoch 5265/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy: 0.9584  
 Epoch 5266/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0351 - accuracy: 0.9603  
 Epoch 5267/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0353 - accuracy: 0.9603  
 Epoch 5268/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0352 - accuracy: 0.9606  
 Epoch 5269/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy: 0.9594  
 Epoch 5270/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0351 - accuracy: 0.9602  
 Epoch 5271/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0347 - accuracy: 0.9586  
 Epoch 5272/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy: 0.9595  
 Epoch 5273/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy: 0.9596  
 Epoch 5274/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy: 0.9598  
 Epoch 5275/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy: 0.9592  
 Epoch 5276/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0360 - accuracy: 0.9597  
 Epoch 5277/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0355 - accuracy: 0.9590  
 Epoch 5278/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0363 - accuracy: 0.9606  
 Epoch 5279/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0360 - accuracy: 0.9597  
 Epoch 5280/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0357 - accuracy: 0.9601  
Epoch 5281/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0371 - accuracy: 0.9600  
Epoch 5282/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0367 - accuracy: 0.9592  
Epoch 5283/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0357 - accuracy: 0.9591  
Epoch 5284/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0358 - accuracy: 0.9596  
Epoch 5285/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy: 0.9596  
Epoch 5286/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0359 - accuracy: 0.9598  
Epoch 5287/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0352 - accuracy: 0.9598  
Epoch 5288/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0358 - accuracy: 0.9601  
Epoch 5289/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy: 0.9599  
Epoch 5290/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0359 - accuracy: 0.9598  
Epoch 5291/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0358 - accuracy: 0.9588  
Epoch 5292/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0361 - accuracy: 0.9596  
Epoch 5293/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0358 - accuracy: 0.9594  
Epoch 5294/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0359 - accuracy: 0.9604  
Epoch 5295/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0361 - accuracy: 0.9601  
Epoch 5296/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0358 - accuracy:  
0.9595  
Epoch 5297/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0359 - accuracy:  
0.9595  
Epoch 5298/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy:  
0.9597  
Epoch 5299/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0356 - accuracy:  
0.9601  
Epoch 5300/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0369 - accuracy:  
0.9595  
Epoch 5301/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0356 - accuracy:  
0.9589  
Epoch 5302/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0354 - accuracy:  
0.9600  
Epoch 5303/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy:  
0.9593  
Epoch 5304/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0350 - accuracy:  
0.9603  
Epoch 5305/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy:  
0.9601  
Epoch 5306/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0353 - accuracy:  
0.9599  
Epoch 5307/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0347 - accuracy:  
0.9600  
Epoch 5308/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0347 - accuracy:  
0.9590  
Epoch 5309/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0343 - accuracy:  
0.9592  
Epoch 5310/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0352 - accuracy:  
0.9592  
Epoch 5311/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0346 - accuracy:  
0.9590  
Epoch 5312/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy:  
0.9597  
Epoch 5313/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy:  
0.9599  
Epoch 5314/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0346 - accuracy:  
0.9595  
Epoch 5315/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0344 - accuracy:  
0.9602  
Epoch 5316/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0339 - accuracy:  
0.9589  
Epoch 5317/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0345 - accuracy:  
0.9594  
Epoch 5318/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy:  
0.9607  
Epoch 5319/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0346 - accuracy:  
0.9592  
Epoch 5320/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0349 - accuracy:  
0.9596  
Epoch 5321/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0352 - accuracy:  
0.9601  
Epoch 5322/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy:  
0.9591  
Epoch 5323/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0347 - accuracy:  
0.9599  
Epoch 5324/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy:  
0.9588  
Epoch 5325/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy:  
0.9601  
Epoch 5326/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy:  
0.9601  
Epoch 5327/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0350 - accuracy:  
0.9594  
Epoch 5328/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0358 - accuracy:  
 0.9602  
 Epoch 5329/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy:  
 0.9595  
 Epoch 5330/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0352 - accuracy:  
 0.9594  
 Epoch 5331/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy:  
 0.9609  
 Epoch 5332/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0348 - accuracy:  
 0.9592  
 Epoch 5333/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0354 - accuracy:  
 0.9591  
 Epoch 5334/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy:  
 0.9588  
 Epoch 5335/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy:  
 0.9589  
 Epoch 5336/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0349 - accuracy:  
 0.9597  
 Epoch 5337/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy:  
 0.9595  
 Epoch 5338/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy:  
 0.9596  
 Epoch 5339/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
 0.9591  
 Epoch 5340/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy:  
 0.9610  
 Epoch 5341/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy:  
 0.9594  
 Epoch 5342/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy:  
 0.9586  
 Epoch 5343/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0354 - accuracy:  
 0.9595  
 Epoch 5344/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0347 - accuracy: 0.9600  
 Epoch 5345/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0352 - accuracy: 0.9597  
 Epoch 5346/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0355 - accuracy: 0.9604  
 Epoch 5347/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0357 - accuracy: 0.9603  
 Epoch 5348/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0343 - accuracy: 0.9597  
 Epoch 5349/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0355 - accuracy: 0.9599  
 Epoch 5350/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0351 - accuracy: 0.9584  
 Epoch 5351/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy: 0.9588  
 Epoch 5352/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy: 0.9594  
 Epoch 5353/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0357 - accuracy: 0.9605  
 Epoch 5354/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0351 - accuracy: 0.9597  
 Epoch 5355/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0352 - accuracy: 0.9594  
 Epoch 5356/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy: 0.9600  
 Epoch 5357/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0351 - accuracy: 0.9601  
 Epoch 5358/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0345 - accuracy: 0.9587  
 Epoch 5359/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0352 - accuracy: 0.9596  
 Epoch 5360/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0351 - accuracy: 0.9598  
Epoch 5361/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0343 - accuracy: 0.9596  
Epoch 5362/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy: 0.9600  
Epoch 5363/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy: 0.9599  
Epoch 5364/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy: 0.9588  
Epoch 5365/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy: 0.9608  
Epoch 5366/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy: 0.9604  
Epoch 5367/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy: 0.9589  
Epoch 5368/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0353 - accuracy: 0.9606  
Epoch 5369/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0351 - accuracy: 0.9589  
Epoch 5370/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0354 - accuracy: 0.9596  
Epoch 5371/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0363 - accuracy: 0.9595  
Epoch 5372/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0354 - accuracy: 0.9604  
Epoch 5373/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0356 - accuracy: 0.9598  
Epoch 5374/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0360 - accuracy: 0.9595  
Epoch 5375/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0360 - accuracy: 0.9594  
Epoch 5376/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy:  
0.9590  
Epoch 5377/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy:  
0.9601  
Epoch 5378/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy:  
0.9596  
Epoch 5379/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy:  
0.9593  
Epoch 5380/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy:  
0.9611  
Epoch 5381/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy:  
0.9596  
Epoch 5382/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy:  
0.9596  
Epoch 5383/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0352 - accuracy:  
0.9591  
Epoch 5384/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0341 - accuracy:  
0.9590  
Epoch 5385/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy:  
0.9592  
Epoch 5386/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy:  
0.9597  
Epoch 5387/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy:  
0.9590  
Epoch 5388/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy:  
0.9596  
Epoch 5389/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0345 - accuracy:  
0.9603  
Epoch 5390/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy:  
0.9601  
Epoch 5391/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0344 - accuracy:  
0.9591  
Epoch 5392/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0340 - accuracy:  
0.9599  
Epoch 5393/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0346 - accuracy:  
0.9597  
Epoch 5394/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy:  
0.9603  
Epoch 5395/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy:  
0.9595  
Epoch 5396/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9601  
Epoch 5397/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy:  
0.9594  
Epoch 5398/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy:  
0.9594  
Epoch 5399/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0346 - accuracy:  
0.9600  
Epoch 5400/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0347 - accuracy:  
0.9593  
Epoch 5401/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy:  
0.9603  
Epoch 5402/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy:  
0.9594  
Epoch 5403/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy:  
0.9605  
Epoch 5404/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy:  
0.9603  
Epoch 5405/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9598  
Epoch 5406/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy:  
0.9597  
Epoch 5407/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy:  
0.9602  
Epoch 5408/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0343 - accuracy: 0.9599  
Epoch 5409/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0342 - accuracy: 0.9596  
Epoch 5410/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0353 - accuracy: 0.9609  
Epoch 5411/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy: 0.9605  
Epoch 5412/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy: 0.9604  
Epoch 5413/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy: 0.9602  
Epoch 5414/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy: 0.9597  
Epoch 5415/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy: 0.9597  
Epoch 5416/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy: 0.9597  
Epoch 5417/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy: 0.9602  
Epoch 5418/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0341 - accuracy: 0.9603  
Epoch 5419/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy: 0.9594  
Epoch 5420/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy: 0.9592  
Epoch 5421/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy: 0.9611  
Epoch 5422/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy: 0.9590  
Epoch 5423/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy: 0.9602  
Epoch 5424/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0347 - accuracy: 0.9606  
 Epoch 5425/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy: 0.9604  
 Epoch 5426/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0337 - accuracy: 0.9590  
 Epoch 5427/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy: 0.9597  
 Epoch 5428/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy: 0.9585  
 Epoch 5429/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy: 0.9596  
 Epoch 5430/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy: 0.9593  
 Epoch 5431/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy: 0.9592  
 Epoch 5432/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy: 0.9589  
 Epoch 5433/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0354 - accuracy: 0.9588  
 Epoch 5434/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy: 0.9595  
 Epoch 5435/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy: 0.9595  
 Epoch 5436/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy: 0.9601  
 Epoch 5437/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0359 - accuracy: 0.9603  
 Epoch 5438/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy: 0.9601  
 Epoch 5439/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy: 0.9592  
 Epoch 5440/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9588  
Epoch 5441/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy:  
0.9600  
Epoch 5442/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy:  
0.9594  
Epoch 5443/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0352 - accuracy:  
0.9589  
Epoch 5444/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy:  
0.9602  
Epoch 5445/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0356 - accuracy:  
0.9597  
Epoch 5446/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0346 - accuracy:  
0.9597  
Epoch 5447/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy:  
0.9593  
Epoch 5448/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0346 - accuracy:  
0.9604  
Epoch 5449/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0342 - accuracy:  
0.9597  
Epoch 5450/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0345 - accuracy:  
0.9605  
Epoch 5451/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0340 - accuracy:  
0.9585  
Epoch 5452/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0342 - accuracy:  
0.9601  
Epoch 5453/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0352 - accuracy:  
0.9603  
Epoch 5454/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0351 - accuracy:  
0.9599  
Epoch 5455/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0354 - accuracy:  
0.9599  
Epoch 5456/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0346 - accuracy:  
 0.9595  
 Epoch 5457/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0344 - accuracy:  
 0.9595  
 Epoch 5458/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0345 - accuracy:  
 0.9598  
 Epoch 5459/100000  
 2/2 [=====] - 0s 120ms/step - loss: 0.0348 - accuracy:  
 0.9595  
 Epoch 5460/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy:  
 0.9596  
 Epoch 5461/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
 0.9593  
 Epoch 5462/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy:  
 0.9606  
 Epoch 5463/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy:  
 0.9601  
 Epoch 5464/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0356 - accuracy:  
 0.9595  
 Epoch 5465/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy:  
 0.9601  
 Epoch 5466/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0354 - accuracy:  
 0.9605  
 Epoch 5467/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy:  
 0.9596  
 Epoch 5468/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy:  
 0.9596  
 Epoch 5469/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
 0.9594  
 Epoch 5470/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0344 - accuracy:  
 0.9594  
 Epoch 5471/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0344 - accuracy:  
 0.9602  
 Epoch 5472/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy:  
0.9589  
Epoch 5473/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy:  
0.9596  
Epoch 5474/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0355 - accuracy:  
0.9597  
Epoch 5475/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0356 - accuracy:  
0.9599  
Epoch 5476/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy:  
0.9602  
Epoch 5477/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0352 - accuracy:  
0.9598  
Epoch 5478/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy:  
0.9603  
Epoch 5479/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy:  
0.9602  
Epoch 5480/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0353 - accuracy:  
0.9603  
Epoch 5481/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0353 - accuracy:  
0.9598  
Epoch 5482/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy:  
0.9597  
Epoch 5483/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0351 - accuracy:  
0.9595  
Epoch 5484/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0348 - accuracy:  
0.9596  
Epoch 5485/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy:  
0.9605  
Epoch 5486/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0353 - accuracy:  
0.9603  
Epoch 5487/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy:  
0.9592  
Epoch 5488/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy:  
0.9597  
Epoch 5489/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy:  
0.9604  
Epoch 5490/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy:  
0.9597  
Epoch 5491/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0344 - accuracy:  
0.9590  
Epoch 5492/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
0.9592  
Epoch 5493/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy:  
0.9602  
Epoch 5494/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy:  
0.9604  
Epoch 5495/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy:  
0.9601  
Epoch 5496/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0345 - accuracy:  
0.9596  
Epoch 5497/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0345 - accuracy:  
0.9589  
Epoch 5498/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9599  
Epoch 5499/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9602  
Epoch 5500/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0352 - accuracy:  
0.9599  
Epoch 5501/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy:  
0.9593  
Epoch 5502/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy:  
0.9592  
Epoch 5503/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0342 - accuracy:  
0.9598  
Epoch 5504/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0353 - accuracy:  
0.9608  
Epoch 5505/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy:  
0.9608  
Epoch 5506/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0348 - accuracy:  
0.9601  
Epoch 5507/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0348 - accuracy:  
0.9597  
Epoch 5508/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy:  
0.9593  
Epoch 5509/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0344 - accuracy:  
0.9590  
Epoch 5510/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy:  
0.9603  
Epoch 5511/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy:  
0.9590  
Epoch 5512/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0364 - accuracy:  
0.9590  
Epoch 5513/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0351 - accuracy:  
0.9597  
Epoch 5514/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0358 - accuracy:  
0.9595  
Epoch 5515/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0361 - accuracy:  
0.9595  
Epoch 5516/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0352 - accuracy:  
0.9595  
Epoch 5517/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0343 - accuracy:  
0.9592  
Epoch 5518/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0353 - accuracy:  
0.9595  
Epoch 5519/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0357 - accuracy:  
0.9591  
Epoch 5520/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy: 0.9604  
Epoch 5521/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy: 0.9592  
Epoch 5522/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy: 0.9596  
Epoch 5523/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0340 - accuracy: 0.9591  
Epoch 5524/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0342 - accuracy: 0.9593  
Epoch 5525/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0342 - accuracy: 0.9602  
Epoch 5526/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy: 0.9594  
Epoch 5527/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy: 0.9607  
Epoch 5528/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0342 - accuracy: 0.9598  
Epoch 5529/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0340 - accuracy: 0.9596  
Epoch 5530/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy: 0.9601  
Epoch 5531/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0353 - accuracy: 0.9601  
Epoch 5532/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy: 0.9592  
Epoch 5533/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy: 0.9598  
Epoch 5534/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0351 - accuracy: 0.9598  
Epoch 5535/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy: 0.9598  
Epoch 5536/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0347 - accuracy:  
0.9595  
Epoch 5537/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy:  
0.9595  
Epoch 5538/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy:  
0.9595  
Epoch 5539/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0357 - accuracy:  
0.9595  
Epoch 5540/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0353 - accuracy:  
0.9602  
Epoch 5541/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0355 - accuracy:  
0.9602  
Epoch 5542/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0347 - accuracy:  
0.9594  
Epoch 5543/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0353 - accuracy:  
0.9596  
Epoch 5544/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0350 - accuracy:  
0.9591  
Epoch 5545/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy:  
0.9596  
Epoch 5546/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy:  
0.9598  
Epoch 5547/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy:  
0.9598  
Epoch 5548/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0353 - accuracy:  
0.9593  
Epoch 5549/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy:  
0.9588  
Epoch 5550/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9597  
Epoch 5551/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy:  
0.9605  
Epoch 5552/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0343 - accuracy:  
0.9597  
Epoch 5553/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy:  
0.9586  
Epoch 5554/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy:  
0.9598  
Epoch 5555/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0343 - accuracy:  
0.9591  
Epoch 5556/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0341 - accuracy:  
0.9593  
Epoch 5557/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0343 - accuracy:  
0.9600  
Epoch 5558/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy:  
0.9598  
Epoch 5559/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9597  
Epoch 5560/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy:  
0.9603  
Epoch 5561/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0342 - accuracy:  
0.9598  
Epoch 5562/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
0.9593  
Epoch 5563/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy:  
0.9590  
Epoch 5564/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9598  
Epoch 5565/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0348 - accuracy:  
0.9602  
Epoch 5566/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0344 - accuracy:  
0.9585  
Epoch 5567/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0345 - accuracy:  
0.9598  
Epoch 5568/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy: 0.9603  
Epoch 5569/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0342 - accuracy: 0.9597  
Epoch 5570/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0353 - accuracy: 0.9592  
Epoch 5571/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy: 0.9586  
Epoch 5572/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy: 0.9592  
Epoch 5573/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0359 - accuracy: 0.9601  
Epoch 5574/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy: 0.9597  
Epoch 5575/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0345 - accuracy: 0.9594  
Epoch 5576/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0368 - accuracy: 0.9594  
Epoch 5577/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy: 0.9587  
Epoch 5578/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0351 - accuracy: 0.9589  
Epoch 5579/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0349 - accuracy: 0.9604  
Epoch 5580/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0351 - accuracy: 0.9606  
Epoch 5581/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy: 0.9600  
Epoch 5582/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy: 0.9601  
Epoch 5583/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy: 0.9596  
Epoch 5584/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0345 - accuracy:  
0.9593  
Epoch 5585/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy:  
0.9602  
Epoch 5586/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0347 - accuracy:  
0.9598  
Epoch 5587/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy:  
0.9599  
Epoch 5588/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0351 - accuracy:  
0.9590  
Epoch 5589/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy:  
0.9601  
Epoch 5590/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy:  
0.9595  
Epoch 5591/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0356 - accuracy:  
0.9595  
Epoch 5592/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy:  
0.9592  
Epoch 5593/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy:  
0.9597  
Epoch 5594/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy:  
0.9606  
Epoch 5595/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0347 - accuracy:  
0.9593  
Epoch 5596/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy:  
0.9608  
Epoch 5597/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0342 - accuracy:  
0.9588  
Epoch 5598/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy:  
0.9604  
Epoch 5599/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy:  
0.9600  
Epoch 5600/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0345 - accuracy: 0.9590  
 Epoch 5601/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy: 0.9607  
 Epoch 5602/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy: 0.9599  
 Epoch 5603/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy: 0.9592  
 Epoch 5604/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0342 - accuracy: 0.9601  
 Epoch 5605/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0340 - accuracy: 0.9591  
 Epoch 5606/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy: 0.9596  
 Epoch 5607/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0343 - accuracy: 0.9605  
 Epoch 5608/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0347 - accuracy: 0.9598  
 Epoch 5609/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy: 0.9607  
 Epoch 5610/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy: 0.9596  
 Epoch 5611/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0342 - accuracy: 0.9597  
 Epoch 5612/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy: 0.9595  
 Epoch 5613/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0343 - accuracy: 0.9599  
 Epoch 5614/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy: 0.9599  
 Epoch 5615/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0340 - accuracy: 0.9598  
 Epoch 5616/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy: 0.9606  
 Epoch 5617/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy: 0.9594  
 Epoch 5618/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy: 0.9587  
 Epoch 5619/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0343 - accuracy: 0.9595  
 Epoch 5620/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy: 0.9605  
 Epoch 5621/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0358 - accuracy: 0.9596  
 Epoch 5622/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0350 - accuracy: 0.9598  
 Epoch 5623/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0359 - accuracy: 0.9592  
 Epoch 5624/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy: 0.9588  
 Epoch 5625/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy: 0.9593  
 Epoch 5626/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0345 - accuracy: 0.9595  
 Epoch 5627/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0353 - accuracy: 0.9599  
 Epoch 5628/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0342 - accuracy: 0.9605  
 Epoch 5629/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy: 0.9589  
 Epoch 5630/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0346 - accuracy: 0.9591  
 Epoch 5631/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy: 0.9593  
 Epoch 5632/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy: 0.9595  
 Epoch 5633/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0341 - accuracy: 0.9595  
 Epoch 5634/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy: 0.9591  
 Epoch 5635/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0340 - accuracy: 0.9599  
 Epoch 5636/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0337 - accuracy: 0.9600  
 Epoch 5637/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0342 - accuracy: 0.9600  
 Epoch 5638/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0342 - accuracy: 0.9599  
 Epoch 5639/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0345 - accuracy: 0.9600  
 Epoch 5640/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy: 0.9597  
 Epoch 5641/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy: 0.9586  
 Epoch 5642/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0354 - accuracy: 0.9603  
 Epoch 5643/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy: 0.9600  
 Epoch 5644/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0356 - accuracy: 0.9604  
 Epoch 5645/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0350 - accuracy: 0.9595  
 Epoch 5646/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy: 0.9603  
 Epoch 5647/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy: 0.9594  
 Epoch 5648/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0356 - accuracy:  
0.9588  
Epoch 5649/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy:  
0.9587  
Epoch 5650/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy:  
0.9603  
Epoch 5651/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0354 - accuracy:  
0.9592  
Epoch 5652/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0349 - accuracy:  
0.9595  
Epoch 5653/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0349 - accuracy:  
0.9607  
Epoch 5654/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy:  
0.9593  
Epoch 5655/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy:  
0.9595  
Epoch 5656/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy:  
0.9595  
Epoch 5657/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9595  
Epoch 5658/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9604  
Epoch 5659/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0343 - accuracy:  
0.9596  
Epoch 5660/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0354 - accuracy:  
0.9607  
Epoch 5661/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0348 - accuracy:  
0.9599  
Epoch 5662/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0359 - accuracy:  
0.9589  
Epoch 5663/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0397 - accuracy:  
0.9587  
Epoch 5664/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0371 - accuracy:  
0.9595  
Epoch 5665/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0360 - accuracy:  
0.9602  
Epoch 5666/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0362 - accuracy:  
0.9605  
Epoch 5667/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0381 - accuracy:  
0.9603  
Epoch 5668/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0384 - accuracy:  
0.9593  
Epoch 5669/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0374 - accuracy:  
0.9599  
Epoch 5670/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0359 - accuracy:  
0.9596  
Epoch 5671/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0359 - accuracy:  
0.9597  
Epoch 5672/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy:  
0.9596  
Epoch 5673/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy:  
0.9596  
Epoch 5674/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0348 - accuracy:  
0.9597  
Epoch 5675/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy:  
0.9595  
Epoch 5676/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0348 - accuracy:  
0.9596  
Epoch 5677/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0347 - accuracy:  
0.9598  
Epoch 5678/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0352 - accuracy:  
0.9600  
Epoch 5679/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0353 - accuracy:  
0.9604  
Epoch 5680/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy:  
0.9607  
Epoch 5681/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy:  
0.9611  
Epoch 5682/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0351 - accuracy:  
0.9604  
Epoch 5683/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy:  
0.9596  
Epoch 5684/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9593  
Epoch 5685/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9585  
Epoch 5686/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0342 - accuracy:  
0.9600  
Epoch 5687/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy:  
0.9591  
Epoch 5688/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9596  
Epoch 5689/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9593  
Epoch 5690/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0344 - accuracy:  
0.9595  
Epoch 5691/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9601  
Epoch 5692/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0341 - accuracy:  
0.9597  
Epoch 5693/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9597  
Epoch 5694/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9587  
Epoch 5695/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy:  
0.9606  
Epoch 5696/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
0.9597  
Epoch 5697/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9595  
Epoch 5698/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0339 - accuracy:  
0.9596  
Epoch 5699/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy:  
0.9598  
Epoch 5700/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0338 - accuracy:  
0.9595  
Epoch 5701/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0341 - accuracy:  
0.9599  
Epoch 5702/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy:  
0.9595  
Epoch 5703/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0342 - accuracy:  
0.9600  
Epoch 5704/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0353 - accuracy:  
0.9596  
Epoch 5705/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0352 - accuracy:  
0.9599  
Epoch 5706/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0345 - accuracy:  
0.9594  
Epoch 5707/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0345 - accuracy:  
0.9589  
Epoch 5708/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0367 - accuracy:  
0.9590  
Epoch 5709/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0351 - accuracy:  
0.9598  
Epoch 5710/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0354 - accuracy:  
0.9599  
Epoch 5711/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0355 - accuracy:  
0.9599  
Epoch 5712/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0348 - accuracy: 0.9599  
 Epoch 5713/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0341 - accuracy: 0.9595  
 Epoch 5714/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy: 0.9592  
 Epoch 5715/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0345 - accuracy: 0.9594  
 Epoch 5716/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy: 0.9599  
 Epoch 5717/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0342 - accuracy: 0.9598  
 Epoch 5718/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0343 - accuracy: 0.9595  
 Epoch 5719/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0344 - accuracy: 0.9607  
 Epoch 5720/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0343 - accuracy: 0.9590  
 Epoch 5721/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy: 0.9601  
 Epoch 5722/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy: 0.9596  
 Epoch 5723/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0342 - accuracy: 0.9593  
 Epoch 5724/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy: 0.9586  
 Epoch 5725/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy: 0.9593  
 Epoch 5726/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy: 0.9603  
 Epoch 5727/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy: 0.9601  
 Epoch 5728/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9591  
Epoch 5729/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9602  
Epoch 5730/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0338 - accuracy:  
0.9603  
Epoch 5731/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0336 - accuracy:  
0.9600  
Epoch 5732/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
0.9602  
Epoch 5733/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy:  
0.9602  
Epoch 5734/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
0.9592  
Epoch 5735/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy:  
0.9604  
Epoch 5736/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0342 - accuracy:  
0.9589  
Epoch 5737/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9592  
Epoch 5738/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0357 - accuracy:  
0.9598  
Epoch 5739/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy:  
0.9603  
Epoch 5740/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0355 - accuracy:  
0.9609  
Epoch 5741/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0347 - accuracy:  
0.9594  
Epoch 5742/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0353 - accuracy:  
0.9594  
Epoch 5743/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy:  
0.9604  
Epoch 5744/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy:  
 0.9586  
 Epoch 5745/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy:  
 0.9594  
 Epoch 5746/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0344 - accuracy:  
 0.9589  
 Epoch 5747/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy:  
 0.9596  
 Epoch 5748/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy:  
 0.9598  
 Epoch 5749/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy:  
 0.9601  
 Epoch 5750/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy:  
 0.9604  
 Epoch 5751/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0343 - accuracy:  
 0.9592  
 Epoch 5752/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy:  
 0.9597  
 Epoch 5753/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0341 - accuracy:  
 0.9605  
 Epoch 5754/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0342 - accuracy:  
 0.9596  
 Epoch 5755/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
 0.9599  
 Epoch 5756/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy:  
 0.9610  
 Epoch 5757/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy:  
 0.9600  
 Epoch 5758/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
 0.9598  
 Epoch 5759/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0340 - accuracy:  
 0.9595  
 Epoch 5760/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9591  
Epoch 5761/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9593  
Epoch 5762/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy:  
0.9597  
Epoch 5763/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy:  
0.9594  
Epoch 5764/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0351 - accuracy:  
0.9592  
Epoch 5765/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy:  
0.9596  
Epoch 5766/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy:  
0.9600  
Epoch 5767/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy:  
0.9594  
Epoch 5768/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy:  
0.9593  
Epoch 5769/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy:  
0.9587  
Epoch 5770/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy:  
0.9595  
Epoch 5771/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy:  
0.9591  
Epoch 5772/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy:  
0.9596  
Epoch 5773/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0346 - accuracy:  
0.9597  
Epoch 5774/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9596  
Epoch 5775/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0347 - accuracy:  
0.9598  
Epoch 5776/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
0.9605  
Epoch 5777/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0344 - accuracy:  
0.9604  
Epoch 5778/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0339 - accuracy:  
0.9607  
Epoch 5779/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0348 - accuracy:  
0.9599  
Epoch 5780/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9593  
Epoch 5781/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
0.9601  
Epoch 5782/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy:  
0.9595  
Epoch 5783/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9590  
Epoch 5784/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0340 - accuracy:  
0.9602  
Epoch 5785/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9603  
Epoch 5786/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9603  
Epoch 5787/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9599  
Epoch 5788/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy:  
0.9600  
Epoch 5789/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy:  
0.9594  
Epoch 5790/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0340 - accuracy:  
0.9603  
Epoch 5791/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
0.9597  
Epoch 5792/100000

2/2 [=====] - 0s 124ms/step - loss: 0.0336 - accuracy:  
0.9594  
Epoch 5793/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
0.9595  
Epoch 5794/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0337 - accuracy:  
0.9595  
Epoch 5795/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0339 - accuracy:  
0.9607  
Epoch 5796/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy:  
0.9604  
Epoch 5797/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy:  
0.9601  
Epoch 5798/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0340 - accuracy:  
0.9595  
Epoch 5799/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0348 - accuracy:  
0.9611  
Epoch 5800/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy:  
0.9595  
Epoch 5801/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy:  
0.9609  
Epoch 5802/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0357 - accuracy:  
0.9601  
Epoch 5803/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy:  
0.9602  
Epoch 5804/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy:  
0.9610  
Epoch 5805/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0356 - accuracy:  
0.9603  
Epoch 5806/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy:  
0.9593  
Epoch 5807/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0360 - accuracy:  
0.9600  
Epoch 5808/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy: 0.9594  
 Epoch 5809/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0351 - accuracy: 0.9592  
 Epoch 5810/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0356 - accuracy: 0.9597  
 Epoch 5811/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0348 - accuracy: 0.9599  
 Epoch 5812/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0341 - accuracy: 0.9589  
 Epoch 5813/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy: 0.9595  
 Epoch 5814/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy: 0.9602  
 Epoch 5815/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy: 0.9597  
 Epoch 5816/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy: 0.9592  
 Epoch 5817/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0339 - accuracy: 0.9599  
 Epoch 5818/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy: 0.9592  
 Epoch 5819/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy: 0.9606  
 Epoch 5820/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy: 0.9589  
 Epoch 5821/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy: 0.9594  
 Epoch 5822/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy: 0.9598  
 Epoch 5823/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0344 - accuracy: 0.9597  
 Epoch 5824/100000



2/2 [=====] - 0s 116ms/step - loss: 0.0346 - accuracy:  
0.9610  
Epoch 5825/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9600  
Epoch 5826/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9602  
Epoch 5827/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9592  
Epoch 5828/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0341 - accuracy:  
0.9593  
Epoch 5829/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9597  
Epoch 5830/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9602  
Epoch 5831/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy:  
0.9598  
Epoch 5832/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9596  
Epoch 5833/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy:  
0.9598  
Epoch 5834/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy:  
0.9597  
Epoch 5835/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy:  
0.9603  
Epoch 5836/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy:  
0.9596  
Epoch 5837/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9585  
Epoch 5838/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0338 - accuracy:  
0.9589  
Epoch 5839/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9597  
Epoch 5840/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9596  
Epoch 5841/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy:  
0.9595  
Epoch 5842/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0340 - accuracy:  
0.9613  
Epoch 5843/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy:  
0.9592  
Epoch 5844/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0339 - accuracy:  
0.9598  
Epoch 5845/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0335 - accuracy:  
0.9583  
Epoch 5846/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9592  
Epoch 5847/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9596  
Epoch 5848/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy:  
0.9598  
Epoch 5849/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9590  
Epoch 5850/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0336 - accuracy:  
0.9590  
Epoch 5851/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9598  
Epoch 5852/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9595  
Epoch 5853/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9591  
Epoch 5854/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0340 - accuracy:  
0.9598  
Epoch 5855/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
0.9591  
Epoch 5856/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0341 - accuracy:  
 0.9600  
 Epoch 5857/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy:  
 0.9595  
 Epoch 5858/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
 0.9596  
 Epoch 5859/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0343 - accuracy:  
 0.9599  
 Epoch 5860/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0352 - accuracy:  
 0.9599  
 Epoch 5861/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0339 - accuracy:  
 0.9591  
 Epoch 5862/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy:  
 0.9596  
 Epoch 5863/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy:  
 0.9597  
 Epoch 5864/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
 0.9595  
 Epoch 5865/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0360 - accuracy:  
 0.9595  
 Epoch 5866/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy:  
 0.9591  
 Epoch 5867/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0352 - accuracy:  
 0.9609  
 Epoch 5868/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy:  
 0.9591  
 Epoch 5869/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
 0.9597  
 Epoch 5870/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy:  
 0.9602  
 Epoch 5871/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy:  
 0.9605  
 Epoch 5872/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0342 - accuracy:  
0.9602  
Epoch 5873/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0345 - accuracy:  
0.9597  
Epoch 5874/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy:  
0.9598  
Epoch 5875/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy:  
0.9587  
Epoch 5876/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy:  
0.9593  
Epoch 5877/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0340 - accuracy:  
0.9599  
Epoch 5878/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0349 - accuracy:  
0.9606  
Epoch 5879/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy:  
0.9596  
Epoch 5880/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9589  
Epoch 5881/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy:  
0.9593  
Epoch 5882/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0344 - accuracy:  
0.9594  
Epoch 5883/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9594  
Epoch 5884/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy:  
0.9602  
Epoch 5885/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0341 - accuracy:  
0.9601  
Epoch 5886/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy:  
0.9590  
Epoch 5887/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy:  
0.9591  
Epoch 5888/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9602  
Epoch 5889/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy:  
0.9606  
Epoch 5890/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy:  
0.9600  
Epoch 5891/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9588  
Epoch 5892/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9595  
Epoch 5893/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy:  
0.9593  
Epoch 5894/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy:  
0.9596  
Epoch 5895/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0347 - accuracy:  
0.9597  
Epoch 5896/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0348 - accuracy:  
0.9602  
Epoch 5897/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy:  
0.9598  
Epoch 5898/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy:  
0.9594  
Epoch 5899/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy:  
0.9604  
Epoch 5900/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0352 - accuracy:  
0.9605  
Epoch 5901/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0347 - accuracy:  
0.9598  
Epoch 5902/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0343 - accuracy:  
0.9592  
Epoch 5903/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9598  
Epoch 5904/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
 0.9596  
 Epoch 5905/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
 0.9588  
 Epoch 5906/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
 0.9594  
 Epoch 5907/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy:  
 0.9590  
 Epoch 5908/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
 0.9590  
 Epoch 5909/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0343 - accuracy:  
 0.9594  
 Epoch 5910/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy:  
 0.9594  
 Epoch 5911/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0336 - accuracy:  
 0.9593  
 Epoch 5912/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
 0.9598  
 Epoch 5913/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
 0.9596  
 Epoch 5914/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy:  
 0.9606  
 Epoch 5915/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy:  
 0.9604  
 Epoch 5916/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy:  
 0.9600  
 Epoch 5917/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0340 - accuracy:  
 0.9595  
 Epoch 5918/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy:  
 0.9603  
 Epoch 5919/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
 0.9601  
 Epoch 5920/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0342 - accuracy:  
0.9596  
Epoch 5921/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9584  
Epoch 5922/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0337 - accuracy:  
0.9597  
Epoch 5923/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9590  
Epoch 5924/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy:  
0.9601  
Epoch 5925/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0348 - accuracy:  
0.9597  
Epoch 5926/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy:  
0.9599  
Epoch 5927/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0353 - accuracy:  
0.9603  
Epoch 5928/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy:  
0.9584  
Epoch 5929/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0353 - accuracy:  
0.9604  
Epoch 5930/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0351 - accuracy:  
0.9603  
Epoch 5931/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0351 - accuracy:  
0.9601  
Epoch 5932/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy:  
0.9600  
Epoch 5933/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0342 - accuracy:  
0.9587  
Epoch 5934/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy:  
0.9590  
Epoch 5935/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0347 - accuracy:  
0.9592  
Epoch 5936/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0347 - accuracy:  
0.9595  
Epoch 5937/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0346 - accuracy:  
0.9600  
Epoch 5938/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0345 - accuracy:  
0.9602  
Epoch 5939/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
0.9588  
Epoch 5940/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0341 - accuracy:  
0.9601  
Epoch 5941/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy:  
0.9599  
Epoch 5942/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0349 - accuracy:  
0.9599  
Epoch 5943/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy:  
0.9592  
Epoch 5944/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy:  
0.9593  
Epoch 5945/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy:  
0.9608  
Epoch 5946/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy:  
0.9599  
Epoch 5947/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9603  
Epoch 5948/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0340 - accuracy:  
0.9597  
Epoch 5949/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy:  
0.9597  
Epoch 5950/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9591  
Epoch 5951/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0345 - accuracy:  
0.9605  
Epoch 5952/100000



2/2 [=====] - 0s 116ms/step - loss: 0.0342 - accuracy:  
0.9601  
Epoch 5953/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0345 - accuracy:  
0.9597  
Epoch 5954/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0358 - accuracy:  
0.9601  
Epoch 5955/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy:  
0.9595  
Epoch 5956/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0363 - accuracy:  
0.9588  
Epoch 5957/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0390 - accuracy:  
0.9591  
Epoch 5958/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0364 - accuracy:  
0.9599  
Epoch 5959/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0363 - accuracy:  
0.9590  
Epoch 5960/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0380 - accuracy:  
0.9592  
Epoch 5961/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0363 - accuracy:  
0.9596  
Epoch 5962/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0350 - accuracy:  
0.9599  
Epoch 5963/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy:  
0.9589  
Epoch 5964/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy:  
0.9591  
Epoch 5965/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0358 - accuracy:  
0.9603  
Epoch 5966/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0352 - accuracy:  
0.9602  
Epoch 5967/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0343 - accuracy:  
0.9592  
Epoch 5968/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0352 - accuracy:  
0.9606  
Epoch 5969/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy:  
0.9597  
Epoch 5970/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0357 - accuracy:  
0.9611  
Epoch 5971/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy:  
0.9592  
Epoch 5972/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy:  
0.9592  
Epoch 5973/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0351 - accuracy:  
0.9589  
Epoch 5974/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0353 - accuracy:  
0.9598  
Epoch 5975/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0345 - accuracy:  
0.9586  
Epoch 5976/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy:  
0.9588  
Epoch 5977/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0342 - accuracy:  
0.9594  
Epoch 5978/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy:  
0.9596  
Epoch 5979/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9592  
Epoch 5980/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy:  
0.9601  
Epoch 5981/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0344 - accuracy:  
0.9606  
Epoch 5982/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy:  
0.9594  
Epoch 5983/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
0.9602  
Epoch 5984/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0344 - accuracy: 0.9599  
Epoch 5985/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0347 - accuracy: 0.9595  
Epoch 5986/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0340 - accuracy: 0.9589  
Epoch 5987/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy: 0.9604  
Epoch 5988/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy: 0.9601  
Epoch 5989/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy: 0.9604  
Epoch 5990/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy: 0.9587  
Epoch 5991/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy: 0.9599  
Epoch 5992/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy: 0.9591  
Epoch 5993/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy: 0.9593  
Epoch 5994/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy: 0.9594  
Epoch 5995/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy: 0.9593  
Epoch 5996/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0337 - accuracy: 0.9588  
Epoch 5997/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0342 - accuracy: 0.9602  
Epoch 5998/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy: 0.9598  
Epoch 5999/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy: 0.9593  
Epoch 6000/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0339 - accuracy:  
0.9593  
Epoch 6001/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0338 - accuracy:  
0.9595  
Epoch 6002/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9593  
Epoch 6003/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
0.9598  
Epoch 6004/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9599  
Epoch 6005/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9597  
Epoch 6006/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy:  
0.9596  
Epoch 6007/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy:  
0.9593  
Epoch 6008/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0363 - accuracy:  
0.9596  
Epoch 6009/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9581  
Epoch 6010/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0341 - accuracy:  
0.9593  
Epoch 6011/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy:  
0.9610  
Epoch 6012/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy:  
0.9597  
Epoch 6013/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0338 - accuracy:  
0.9589  
Epoch 6014/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0341 - accuracy:  
0.9590  
Epoch 6015/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0344 - accuracy:  
0.9597  
Epoch 6016/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy: 0.9598  
Epoch 6017/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy: 0.9597  
Epoch 6018/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy: 0.9598  
Epoch 6019/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy: 0.9594  
Epoch 6020/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy: 0.9590  
Epoch 6021/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy: 0.9589  
Epoch 6022/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0344 - accuracy: 0.9602  
Epoch 6023/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy: 0.9590  
Epoch 6024/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0347 - accuracy: 0.9596  
Epoch 6025/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0357 - accuracy: 0.9596  
Epoch 6026/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0347 - accuracy: 0.9594  
Epoch 6027/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0363 - accuracy: 0.9598  
Epoch 6028/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0351 - accuracy: 0.9588  
Epoch 6029/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy: 0.9602  
Epoch 6030/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0348 - accuracy: 0.9592  
Epoch 6031/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0342 - accuracy: 0.9595  
Epoch 6032/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy:  
0.9593  
Epoch 6033/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0347 - accuracy:  
0.9602  
Epoch 6034/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy:  
0.9588  
Epoch 6035/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy:  
0.9594  
Epoch 6036/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy:  
0.9590  
Epoch 6037/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0339 - accuracy:  
0.9591  
Epoch 6038/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0334 - accuracy:  
0.9589  
Epoch 6039/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9602  
Epoch 6040/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0341 - accuracy:  
0.9606  
Epoch 6041/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9595  
Epoch 6042/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy:  
0.9594  
Epoch 6043/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
0.9606  
Epoch 6044/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0341 - accuracy:  
0.9600  
Epoch 6045/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0341 - accuracy:  
0.9593  
Epoch 6046/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9596  
Epoch 6047/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy:  
0.9593  
Epoch 6048/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0339 - accuracy:  
0.9599  
Epoch 6049/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9599  
Epoch 6050/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0337 - accuracy:  
0.9593  
Epoch 6051/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0341 - accuracy:  
0.9598  
Epoch 6052/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy:  
0.9592  
Epoch 6053/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy:  
0.9601  
Epoch 6054/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
0.9597  
Epoch 6055/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0344 - accuracy:  
0.9603  
Epoch 6056/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0341 - accuracy:  
0.9606  
Epoch 6057/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9585  
Epoch 6058/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0351 - accuracy:  
0.9591  
Epoch 6059/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9598  
Epoch 6060/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy:  
0.9604  
Epoch 6061/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0343 - accuracy:  
0.9586  
Epoch 6062/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy:  
0.9598  
Epoch 6063/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy:  
0.9598  
Epoch 6064/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0349 - accuracy:  
0.9598  
Epoch 6065/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9588  
Epoch 6066/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy:  
0.9601  
Epoch 6067/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0355 - accuracy:  
0.9603  
Epoch 6068/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
0.9594  
Epoch 6069/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0343 - accuracy:  
0.9603  
Epoch 6070/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
0.9592  
Epoch 6071/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0347 - accuracy:  
0.9597  
Epoch 6072/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9597  
Epoch 6073/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0339 - accuracy:  
0.9591  
Epoch 6074/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy:  
0.9599  
Epoch 6075/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0340 - accuracy:  
0.9594  
Epoch 6076/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0338 - accuracy:  
0.9597  
Epoch 6077/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy:  
0.9602  
Epoch 6078/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0342 - accuracy:  
0.9594  
Epoch 6079/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0342 - accuracy:  
0.9593  
Epoch 6080/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9601  
Epoch 6081/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9601  
Epoch 6082/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0341 - accuracy:  
0.9599  
Epoch 6083/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy:  
0.9600  
Epoch 6084/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9596  
Epoch 6085/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9597  
Epoch 6086/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0339 - accuracy:  
0.9604  
Epoch 6087/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9600  
Epoch 6088/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9600  
Epoch 6089/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0342 - accuracy:  
0.9603  
Epoch 6090/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy:  
0.9595  
Epoch 6091/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0341 - accuracy:  
0.9592  
Epoch 6092/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0355 - accuracy:  
0.9602  
Epoch 6093/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0351 - accuracy:  
0.9586  
Epoch 6094/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0349 - accuracy:  
0.9599  
Epoch 6095/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0358 - accuracy:  
0.9608  
Epoch 6096/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0357 - accuracy:  
0.9604  
Epoch 6097/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy:  
0.9600  
Epoch 6098/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy:  
0.9598  
Epoch 6099/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0345 - accuracy:  
0.9601  
Epoch 6100/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0338 - accuracy:  
0.9585  
Epoch 6101/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0355 - accuracy:  
0.9604  
Epoch 6102/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0343 - accuracy:  
0.9602  
Epoch 6103/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0339 - accuracy:  
0.9596  
Epoch 6104/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0360 - accuracy:  
0.9603  
Epoch 6105/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0348 - accuracy:  
0.9592  
Epoch 6106/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy:  
0.9596  
Epoch 6107/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0353 - accuracy:  
0.9593  
Epoch 6108/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0350 - accuracy:  
0.9600  
Epoch 6109/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy:  
0.9600  
Epoch 6110/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy:  
0.9597  
Epoch 6111/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9595  
Epoch 6112/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9595  
Epoch 6113/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9594  
Epoch 6114/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9594  
Epoch 6115/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0338 - accuracy:  
0.9605  
Epoch 6116/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0341 - accuracy:  
0.9601  
Epoch 6117/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9588  
Epoch 6118/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy:  
0.9596  
Epoch 6119/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0338 - accuracy:  
0.9597  
Epoch 6120/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0339 - accuracy:  
0.9593  
Epoch 6121/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy:  
0.9602  
Epoch 6122/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0339 - accuracy:  
0.9595  
Epoch 6123/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0339 - accuracy:  
0.9587  
Epoch 6124/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy:  
0.9604  
Epoch 6125/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy:  
0.9599  
Epoch 6126/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy:  
0.9599  
Epoch 6127/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0350 - accuracy:  
0.9595  
Epoch 6128/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9594  
Epoch 6129/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0345 - accuracy:  
0.9603  
Epoch 6130/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
0.9597  
Epoch 6131/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy:  
0.9592  
Epoch 6132/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0353 - accuracy:  
0.9592  
Epoch 6133/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy:  
0.9605  
Epoch 6134/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0351 - accuracy:  
0.9593  
Epoch 6135/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0368 - accuracy:  
0.9598  
Epoch 6136/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0353 - accuracy:  
0.9590  
Epoch 6137/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0349 - accuracy:  
0.9591  
Epoch 6138/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0351 - accuracy:  
0.9599  
Epoch 6139/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0353 - accuracy:  
0.9602  
Epoch 6140/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy:  
0.9591  
Epoch 6141/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0342 - accuracy:  
0.9591  
Epoch 6142/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy:  
0.9602  
Epoch 6143/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9589  
Epoch 6144/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0342 - accuracy:  
0.9600  
Epoch 6145/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0340 - accuracy:  
0.9591  
Epoch 6146/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9593  
Epoch 6147/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0338 - accuracy:  
0.9600  
Epoch 6148/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9587  
Epoch 6149/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0342 - accuracy:  
0.9597  
Epoch 6150/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0349 - accuracy:  
0.9602  
Epoch 6151/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0366 - accuracy:  
0.9597  
Epoch 6152/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0369 - accuracy:  
0.9593  
Epoch 6153/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy:  
0.9595  
Epoch 6154/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy:  
0.9593  
Epoch 6155/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0357 - accuracy:  
0.9598  
Epoch 6156/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy:  
0.9596  
Epoch 6157/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0348 - accuracy:  
0.9603  
Epoch 6158/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0346 - accuracy:  
0.9604  
Epoch 6159/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0356 - accuracy:  
0.9594  
Epoch 6160/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0354 - accuracy:  
0.9589  
Epoch 6161/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0346 - accuracy:  
0.9589  
Epoch 6162/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9589  
Epoch 6163/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0347 - accuracy:  
0.9605  
Epoch 6164/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0351 - accuracy:  
0.9603  
Epoch 6165/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0351 - accuracy:  
0.9592  
Epoch 6166/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0346 - accuracy:  
0.9597  
Epoch 6167/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0344 - accuracy:  
0.9596  
Epoch 6168/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9592  
Epoch 6169/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0342 - accuracy:  
0.9590  
Epoch 6170/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy:  
0.9597  
Epoch 6171/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy:  
0.9603  
Epoch 6172/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9604  
Epoch 6173/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy:  
0.9592  
Epoch 6174/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0340 - accuracy:  
0.9599  
Epoch 6175/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0337 - accuracy:  
0.9591  
Epoch 6176/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy: 0.9601  
 Epoch 6177/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy: 0.9596  
 Epoch 6178/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0335 - accuracy: 0.9593  
 Epoch 6179/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0336 - accuracy: 0.9591  
 Epoch 6180/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy: 0.9606  
 Epoch 6181/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy: 0.9594  
 Epoch 6182/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy: 0.9594  
 Epoch 6183/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0342 - accuracy: 0.9597  
 Epoch 6184/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy: 0.9594  
 Epoch 6185/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0336 - accuracy: 0.9594  
 Epoch 6186/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy: 0.9594  
 Epoch 6187/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy: 0.9594  
 Epoch 6188/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy: 0.9606  
 Epoch 6189/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0340 - accuracy: 0.9596  
 Epoch 6190/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0338 - accuracy: 0.9602  
 Epoch 6191/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0343 - accuracy: 0.9600  
 Epoch 6192/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0342 - accuracy: 0.9596  
 Epoch 6193/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy: 0.9590  
 Epoch 6194/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy: 0.9601  
 Epoch 6195/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0359 - accuracy: 0.9604  
 Epoch 6196/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy: 0.9594  
 Epoch 6197/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy: 0.9604  
 Epoch 6198/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0347 - accuracy: 0.9589  
 Epoch 6199/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0372 - accuracy: 0.9594  
 Epoch 6200/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0356 - accuracy: 0.9600  
 Epoch 6201/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0357 - accuracy: 0.9597  
 Epoch 6202/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0379 - accuracy: 0.9611  
 Epoch 6203/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0359 - accuracy: 0.9592  
 Epoch 6204/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0353 - accuracy: 0.9599  
 Epoch 6205/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy: 0.9592  
 Epoch 6206/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0348 - accuracy: 0.9594  
 Epoch 6207/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy: 0.9589  
 Epoch 6208/100000



2/2 [=====] - 0s 116ms/step - loss: 0.0345 - accuracy:  
0.9600  
Epoch 6209/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0343 - accuracy:  
0.9605  
Epoch 6210/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9590  
Epoch 6211/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0341 - accuracy:  
0.9595  
Epoch 6212/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0339 - accuracy:  
0.9593  
Epoch 6213/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0344 - accuracy:  
0.9596  
Epoch 6214/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9600  
Epoch 6215/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0338 - accuracy:  
0.9589  
Epoch 6216/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9584  
Epoch 6217/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0340 - accuracy:  
0.9604  
Epoch 6218/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9591  
Epoch 6219/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9596  
Epoch 6220/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9602  
Epoch 6221/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9596  
Epoch 6222/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9597  
Epoch 6223/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0335 - accuracy:  
0.9593  
Epoch 6224/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0334 - accuracy:  
0.9591  
Epoch 6225/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9594  
Epoch 6226/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9596  
Epoch 6227/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0338 - accuracy:  
0.9600  
Epoch 6228/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9598  
Epoch 6229/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9590  
Epoch 6230/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0359 - accuracy:  
0.9594  
Epoch 6231/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy:  
0.9599  
Epoch 6232/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0352 - accuracy:  
0.9600  
Epoch 6233/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy:  
0.9595  
Epoch 6234/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy:  
0.9598  
Epoch 6235/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0366 - accuracy:  
0.9594  
Epoch 6236/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0369 - accuracy:  
0.9599  
Epoch 6237/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0359 - accuracy:  
0.9594  
Epoch 6238/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0358 - accuracy:  
0.9592  
Epoch 6239/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0354 - accuracy:  
0.9601  
Epoch 6240/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy:  
0.9598  
Epoch 6241/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0355 - accuracy:  
0.9597  
Epoch 6242/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0353 - accuracy:  
0.9598  
Epoch 6243/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0345 - accuracy:  
0.9589  
Epoch 6244/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0341 - accuracy:  
0.9592  
Epoch 6245/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy:  
0.9602  
Epoch 6246/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0344 - accuracy:  
0.9592  
Epoch 6247/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy:  
0.9595  
Epoch 6248/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0345 - accuracy:  
0.9609  
Epoch 6249/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
0.9592  
Epoch 6250/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0346 - accuracy:  
0.9598  
Epoch 6251/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0338 - accuracy:  
0.9589  
Epoch 6252/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy:  
0.9593  
Epoch 6253/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy:  
0.9599  
Epoch 6254/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy:  
0.9607  
Epoch 6255/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
0.9590  
Epoch 6256/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy: 0.9597  
Epoch 6257/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy: 0.9601  
Epoch 6258/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy: 0.9594  
Epoch 6259/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy: 0.9594  
Epoch 6260/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0340 - accuracy: 0.9599  
Epoch 6261/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0339 - accuracy: 0.9595  
Epoch 6262/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy: 0.9610  
Epoch 6263/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy: 0.9591  
Epoch 6264/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy: 0.9604  
Epoch 6265/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy: 0.9599  
Epoch 6266/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0336 - accuracy: 0.9591  
Epoch 6267/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0335 - accuracy: 0.9592  
Epoch 6268/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0337 - accuracy: 0.9588  
Epoch 6269/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy: 0.9594  
Epoch 6270/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0345 - accuracy: 0.9595  
Epoch 6271/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0337 - accuracy: 0.9589  
Epoch 6272/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy: 0.9601  
 Epoch 6273/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy: 0.9609  
 Epoch 6274/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy: 0.9595  
 Epoch 6275/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy: 0.9599  
 Epoch 6276/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0346 - accuracy: 0.9591  
 Epoch 6277/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy: 0.9599  
 Epoch 6278/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy: 0.9602  
 Epoch 6279/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0357 - accuracy: 0.9600  
 Epoch 6280/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy: 0.9584  
 Epoch 6281/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0344 - accuracy: 0.9603  
 Epoch 6282/100000  
 2/2 [=====] - 0s 122ms/step - loss: 0.0352 - accuracy: 0.9597  
 Epoch 6283/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy: 0.9600  
 Epoch 6284/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0340 - accuracy: 0.9600  
 Epoch 6285/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0342 - accuracy: 0.9600  
 Epoch 6286/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0339 - accuracy: 0.9608  
 Epoch 6287/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy: 0.9593  
 Epoch 6288/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0337 - accuracy: 0.9595  
Epoch 6289/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0338 - accuracy: 0.9601  
Epoch 6290/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy: 0.9597  
Epoch 6291/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy: 0.9598  
Epoch 6292/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy: 0.9588  
Epoch 6293/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0337 - accuracy: 0.9599  
Epoch 6294/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy: 0.9594  
Epoch 6295/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0345 - accuracy: 0.9605  
Epoch 6296/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0346 - accuracy: 0.9597  
Epoch 6297/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy: 0.9598  
Epoch 6298/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy: 0.9591  
Epoch 6299/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy: 0.9597  
Epoch 6300/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy: 0.9607  
Epoch 6301/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy: 0.9604  
Epoch 6302/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy: 0.9602  
Epoch 6303/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy: 0.9594  
Epoch 6304/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9584  
Epoch 6305/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy:  
0.9611  
Epoch 6306/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy:  
0.9605  
Epoch 6307/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0339 - accuracy:  
0.9598  
Epoch 6308/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0355 - accuracy:  
0.9593  
Epoch 6309/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0341 - accuracy:  
0.9595  
Epoch 6310/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy:  
0.9599  
Epoch 6311/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy:  
0.9600  
Epoch 6312/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy:  
0.9602  
Epoch 6313/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9599  
Epoch 6314/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0341 - accuracy:  
0.9596  
Epoch 6315/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0340 - accuracy:  
0.9597  
Epoch 6316/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy:  
0.9584  
Epoch 6317/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy:  
0.9591  
Epoch 6318/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy:  
0.9595  
Epoch 6319/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0345 - accuracy:  
0.9609  
Epoch 6320/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0350 - accuracy: 0.9599  
Epoch 6321/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0350 - accuracy: 0.9594  
Epoch 6322/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0355 - accuracy: 0.9595  
Epoch 6323/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0341 - accuracy: 0.9588  
Epoch 6324/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy: 0.9594  
Epoch 6325/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0342 - accuracy: 0.9601  
Epoch 6326/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0355 - accuracy: 0.9597  
Epoch 6327/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0364 - accuracy: 0.9592  
Epoch 6328/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0354 - accuracy: 0.9599  
Epoch 6329/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy: 0.9591  
Epoch 6330/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0359 - accuracy: 0.9600  
Epoch 6331/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0349 - accuracy: 0.9596  
Epoch 6332/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0348 - accuracy: 0.9604  
Epoch 6333/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0344 - accuracy: 0.9603  
Epoch 6334/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0343 - accuracy: 0.9600  
Epoch 6335/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0342 - accuracy: 0.9602  
Epoch 6336/100000



2/2 [=====] - 0s 119ms/step - loss: 0.0339 - accuracy: 0.9597  
Epoch 6337/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0342 - accuracy: 0.9588  
Epoch 6338/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0340 - accuracy: 0.9602  
Epoch 6339/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy: 0.9592  
Epoch 6340/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0341 - accuracy: 0.9595  
Epoch 6341/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy: 0.9595  
Epoch 6342/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0338 - accuracy: 0.9593  
Epoch 6343/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0333 - accuracy: 0.9598  
Epoch 6344/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0341 - accuracy: 0.9594  
Epoch 6345/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0343 - accuracy: 0.9591  
Epoch 6346/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0339 - accuracy: 0.9588  
Epoch 6347/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0344 - accuracy: 0.9600  
Epoch 6348/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0339 - accuracy: 0.9600  
Epoch 6349/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0345 - accuracy: 0.9589  
Epoch 6350/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy: 0.9596  
Epoch 6351/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0339 - accuracy: 0.9595  
Epoch 6352/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0338 - accuracy: 0.9604  
Epoch 6353/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy: 0.9595  
Epoch 6354/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy: 0.9590  
Epoch 6355/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy: 0.9600  
Epoch 6356/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy: 0.9609  
Epoch 6357/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy: 0.9588  
Epoch 6358/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy: 0.9589  
Epoch 6359/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy: 0.9597  
Epoch 6360/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0343 - accuracy: 0.9590  
Epoch 6361/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy: 0.9584  
Epoch 6362/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0340 - accuracy: 0.9602  
Epoch 6363/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0352 - accuracy: 0.9604  
Epoch 6364/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy: 0.9589  
Epoch 6365/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy: 0.9592  
Epoch 6366/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0342 - accuracy: 0.9599  
Epoch 6367/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy: 0.9596  
Epoch 6368/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy:  
0.9601  
Epoch 6369/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy:  
0.9600  
Epoch 6370/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0343 - accuracy:  
0.9601  
Epoch 6371/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy:  
0.9606  
Epoch 6372/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy:  
0.9600  
Epoch 6373/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0352 - accuracy:  
0.9598  
Epoch 6374/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy:  
0.9597  
Epoch 6375/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9609  
Epoch 6376/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy:  
0.9597  
Epoch 6377/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy:  
0.9603  
Epoch 6378/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0343 - accuracy:  
0.9596  
Epoch 6379/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9587  
Epoch 6380/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9591  
Epoch 6381/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9593  
Epoch 6382/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy:  
0.9598  
Epoch 6383/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0345 - accuracy:  
0.9594  
Epoch 6384/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy: 0.9591  
Epoch 6385/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0343 - accuracy: 0.9603  
Epoch 6386/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy: 0.9591  
Epoch 6387/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy: 0.9592  
Epoch 6388/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy: 0.9597  
Epoch 6389/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy: 0.9602  
Epoch 6390/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy: 0.9597  
Epoch 6391/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy: 0.9593  
Epoch 6392/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0337 - accuracy: 0.9589  
Epoch 6393/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0338 - accuracy: 0.9595  
Epoch 6394/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0334 - accuracy: 0.9599  
Epoch 6395/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy: 0.9593  
Epoch 6396/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy: 0.9592  
Epoch 6397/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0333 - accuracy: 0.9589  
Epoch 6398/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy: 0.9599  
Epoch 6399/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy: 0.9596  
Epoch 6400/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0340 - accuracy:  
0.9606  
Epoch 6401/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9593  
Epoch 6402/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9588  
Epoch 6403/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0340 - accuracy:  
0.9598  
Epoch 6404/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy:  
0.9601  
Epoch 6405/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9589  
Epoch 6406/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9596  
Epoch 6407/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9598  
Epoch 6408/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9591  
Epoch 6409/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0334 - accuracy:  
0.9587  
Epoch 6410/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9596  
Epoch 6411/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0333 - accuracy:  
0.9588  
Epoch 6412/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0340 - accuracy:  
0.9601  
Epoch 6413/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy:  
0.9599  
Epoch 6414/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy:  
0.9593  
Epoch 6415/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy:  
0.9597  
Epoch 6416/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9590  
Epoch 6417/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0337 - accuracy:  
0.9597  
Epoch 6418/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9603  
Epoch 6419/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9601  
Epoch 6420/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9594  
Epoch 6421/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0339 - accuracy:  
0.9595  
Epoch 6422/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0335 - accuracy:  
0.9599  
Epoch 6423/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9598  
Epoch 6424/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9594  
Epoch 6425/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9598  
Epoch 6426/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9605  
Epoch 6427/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
0.9595  
Epoch 6428/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy:  
0.9595  
Epoch 6429/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9593  
Epoch 6430/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0344 - accuracy:  
0.9597  
Epoch 6431/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy:  
0.9602  
Epoch 6432/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9589  
Epoch 6433/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9599  
Epoch 6434/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy:  
0.9601  
Epoch 6435/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9600  
Epoch 6436/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9594  
Epoch 6437/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
0.9593  
Epoch 6438/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9596  
Epoch 6439/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0334 - accuracy:  
0.9594  
Epoch 6440/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0342 - accuracy:  
0.9602  
Epoch 6441/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0338 - accuracy:  
0.9593  
Epoch 6442/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy:  
0.9594  
Epoch 6443/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0338 - accuracy:  
0.9590  
Epoch 6444/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy:  
0.9603  
Epoch 6445/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy:  
0.9598  
Epoch 6446/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9593  
Epoch 6447/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9592  
Epoch 6448/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9598  
Epoch 6449/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0337 - accuracy:  
0.9597  
Epoch 6450/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9593  
Epoch 6451/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9602  
Epoch 6452/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9596  
Epoch 6453/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy:  
0.9604  
Epoch 6454/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9596  
Epoch 6455/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy:  
0.9601  
Epoch 6456/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0337 - accuracy:  
0.9595  
Epoch 6457/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0334 - accuracy:  
0.9585  
Epoch 6458/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0353 - accuracy:  
0.9599  
Epoch 6459/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0343 - accuracy:  
0.9598  
Epoch 6460/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0354 - accuracy:  
0.9599  
Epoch 6461/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0348 - accuracy:  
0.9589  
Epoch 6462/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy:  
0.9600  
Epoch 6463/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy:  
0.9597  
Epoch 6464/100000



2/2 [=====] - 0s 116ms/step - loss: 0.0357 - accuracy:  
0.9595  
Epoch 6465/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0348 - accuracy:  
0.9605  
Epoch 6466/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy:  
0.9598  
Epoch 6467/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy:  
0.9598  
Epoch 6468/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy:  
0.9603  
Epoch 6469/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0346 - accuracy:  
0.9593  
Epoch 6470/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0351 - accuracy:  
0.9604  
Epoch 6471/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9591  
Epoch 6472/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
0.9595  
Epoch 6473/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0340 - accuracy:  
0.9604  
Epoch 6474/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0344 - accuracy:  
0.9597  
Epoch 6475/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy:  
0.9595  
Epoch 6476/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy:  
0.9601  
Epoch 6477/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy:  
0.9600  
Epoch 6478/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy:  
0.9597  
Epoch 6479/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9595  
Epoch 6480/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy:  
0.9603  
Epoch 6481/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0341 - accuracy:  
0.9591  
Epoch 6482/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
0.9596  
Epoch 6483/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
0.9587  
Epoch 6484/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9591  
Epoch 6485/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0344 - accuracy:  
0.9598  
Epoch 6486/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0336 - accuracy:  
0.9608  
Epoch 6487/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0345 - accuracy:  
0.9596  
Epoch 6488/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0341 - accuracy:  
0.9606  
Epoch 6489/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0341 - accuracy:  
0.9604  
Epoch 6490/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9592  
Epoch 6491/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9596  
Epoch 6492/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy:  
0.9595  
Epoch 6493/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9602  
Epoch 6494/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0338 - accuracy:  
0.9597  
Epoch 6495/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0332 - accuracy:  
0.9597  
Epoch 6496/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy:  
0.9596  
Epoch 6497/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy:  
0.9602  
Epoch 6498/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0340 - accuracy:  
0.9599  
Epoch 6499/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0348 - accuracy:  
0.9595  
Epoch 6500/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0347 - accuracy:  
0.9603  
Epoch 6501/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0348 - accuracy:  
0.9586  
Epoch 6502/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0372 - accuracy:  
0.9591  
Epoch 6503/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy:  
0.9595  
Epoch 6504/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy:  
0.9597  
Epoch 6505/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy:  
0.9603  
Epoch 6506/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0359 - accuracy:  
0.9595  
Epoch 6507/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0354 - accuracy:  
0.9596  
Epoch 6508/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0348 - accuracy:  
0.9591  
Epoch 6509/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
0.9598  
Epoch 6510/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0349 - accuracy:  
0.9605  
Epoch 6511/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy:  
0.9592  
Epoch 6512/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0359 - accuracy:  
0.9606  
Epoch 6513/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy:  
0.9588  
Epoch 6514/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0345 - accuracy:  
0.9603  
Epoch 6515/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0352 - accuracy:  
0.9597  
Epoch 6516/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy:  
0.9603  
Epoch 6517/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9596  
Epoch 6518/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0340 - accuracy:  
0.9593  
Epoch 6519/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0341 - accuracy:  
0.9595  
Epoch 6520/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9596  
Epoch 6521/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0338 - accuracy:  
0.9584  
Epoch 6522/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0337 - accuracy:  
0.9604  
Epoch 6523/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9588  
Epoch 6524/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0341 - accuracy:  
0.9595  
Epoch 6525/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0328 - accuracy:  
0.9588  
Epoch 6526/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9594  
Epoch 6527/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy:  
0.9591  
Epoch 6528/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0342 - accuracy:  
0.9595  
Epoch 6529/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9590  
Epoch 6530/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
0.9597  
Epoch 6531/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy:  
0.9592  
Epoch 6532/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy:  
0.9597  
Epoch 6533/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9594  
Epoch 6534/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy:  
0.9598  
Epoch 6535/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0351 - accuracy:  
0.9595  
Epoch 6536/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9602  
Epoch 6537/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0337 - accuracy:  
0.9602  
Epoch 6538/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0348 - accuracy:  
0.9590  
Epoch 6539/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0343 - accuracy:  
0.9603  
Epoch 6540/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy:  
0.9593  
Epoch 6541/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy:  
0.9605  
Epoch 6542/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0343 - accuracy:  
0.9597  
Epoch 6543/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0344 - accuracy:  
0.9597  
Epoch 6544/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy:  
0.9593  
Epoch 6545/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0341 - accuracy:  
0.9600  
Epoch 6546/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9598  
Epoch 6547/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9597  
Epoch 6548/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9590  
Epoch 6549/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9583  
Epoch 6550/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy:  
0.9592  
Epoch 6551/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
0.9599  
Epoch 6552/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0336 - accuracy:  
0.9601  
Epoch 6553/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9598  
Epoch 6554/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9597  
Epoch 6555/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9591  
Epoch 6556/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9590  
Epoch 6557/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0336 - accuracy:  
0.9593  
Epoch 6558/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9600  
Epoch 6559/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy:  
0.9594  
Epoch 6560/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9600  
Epoch 6561/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9595  
Epoch 6562/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9590  
Epoch 6563/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0335 - accuracy:  
0.9596  
Epoch 6564/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0335 - accuracy:  
0.9596  
Epoch 6565/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9599  
Epoch 6566/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9604  
Epoch 6567/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0337 - accuracy:  
0.9597  
Epoch 6568/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0342 - accuracy:  
0.9596  
Epoch 6569/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9591  
Epoch 6570/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9598  
Epoch 6571/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0341 - accuracy:  
0.9600  
Epoch 6572/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0344 - accuracy:  
0.9598  
Epoch 6573/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0338 - accuracy:  
0.9594  
Epoch 6574/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0342 - accuracy:  
0.9597  
Epoch 6575/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0340 - accuracy:  
0.9591  
Epoch 6576/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9601  
Epoch 6577/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0333 - accuracy:  
0.9593  
Epoch 6578/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9595  
Epoch 6579/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0332 - accuracy:  
0.9596  
Epoch 6580/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0335 - accuracy:  
0.9593  
Epoch 6581/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0339 - accuracy:  
0.9591  
Epoch 6582/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9599  
Epoch 6583/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0335 - accuracy:  
0.9588  
Epoch 6584/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0334 - accuracy:  
0.9606  
Epoch 6585/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9594  
Epoch 6586/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0333 - accuracy:  
0.9600  
Epoch 6587/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9591  
Epoch 6588/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9594  
Epoch 6589/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9597  
Epoch 6590/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9599  
Epoch 6591/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9594  
Epoch 6592/100000



2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy:  
0.9596  
Epoch 6593/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9597  
Epoch 6594/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0334 - accuracy:  
0.9597  
Epoch 6595/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0335 - accuracy:  
0.9591  
Epoch 6596/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0337 - accuracy:  
0.9601  
Epoch 6597/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9599  
Epoch 6598/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9593  
Epoch 6599/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9599  
Epoch 6600/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9598  
Epoch 6601/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0335 - accuracy:  
0.9601  
Epoch 6602/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
0.9593  
Epoch 6603/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9592  
Epoch 6604/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0339 - accuracy:  
0.9596  
Epoch 6605/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy:  
0.9598  
Epoch 6606/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9603  
Epoch 6607/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0352 - accuracy:  
0.9599  
Epoch 6608/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0362 - accuracy:  
0.9603  
Epoch 6609/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0353 - accuracy:  
0.9597  
Epoch 6610/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0352 - accuracy:  
0.9598  
Epoch 6611/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0370 - accuracy:  
0.9591  
Epoch 6612/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0353 - accuracy:  
0.9591  
Epoch 6613/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0358 - accuracy:  
0.9594  
Epoch 6614/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0353 - accuracy:  
0.9598  
Epoch 6615/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0360 - accuracy:  
0.9604  
Epoch 6616/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0375 - accuracy:  
0.9597  
Epoch 6617/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0351 - accuracy:  
0.9595  
Epoch 6618/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0345 - accuracy:  
0.9592  
Epoch 6619/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy:  
0.9604  
Epoch 6620/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy:  
0.9594  
Epoch 6621/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0343 - accuracy:  
0.9595  
Epoch 6622/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0338 - accuracy:  
0.9602  
Epoch 6623/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0336 - accuracy:  
0.9600  
Epoch 6624/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0336 - accuracy:  
0.9604  
Epoch 6625/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9595  
Epoch 6626/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9600  
Epoch 6627/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9595  
Epoch 6628/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0334 - accuracy:  
0.9590  
Epoch 6629/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0334 - accuracy:  
0.9597  
Epoch 6630/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy:  
0.9607  
Epoch 6631/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0335 - accuracy:  
0.9596  
Epoch 6632/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy:  
0.9599  
Epoch 6633/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9587  
Epoch 6634/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0336 - accuracy:  
0.9594  
Epoch 6635/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9605  
Epoch 6636/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0347 - accuracy:  
0.9597  
Epoch 6637/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
0.9594  
Epoch 6638/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9607  
Epoch 6639/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy:  
0.9594  
Epoch 6640/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy:  
0.9590  
Epoch 6641/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9590  
Epoch 6642/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy:  
0.9603  
Epoch 6643/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0346 - accuracy:  
0.9598  
Epoch 6644/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9599  
Epoch 6645/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9593  
Epoch 6646/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9597  
Epoch 6647/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy:  
0.9597  
Epoch 6648/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9602  
Epoch 6649/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy:  
0.9590  
Epoch 6650/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0340 - accuracy:  
0.9591  
Epoch 6651/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy:  
0.9597  
Epoch 6652/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy:  
0.9607  
Epoch 6653/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy:  
0.9601  
Epoch 6654/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0346 - accuracy:  
0.9599  
Epoch 6655/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy:  
0.9606  
Epoch 6656/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9592  
Epoch 6657/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9605  
Epoch 6658/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9598  
Epoch 6659/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9596  
Epoch 6660/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9607  
Epoch 6661/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9598  
Epoch 6662/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0341 - accuracy:  
0.9601  
Epoch 6663/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy:  
0.9598  
Epoch 6664/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9597  
Epoch 6665/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0334 - accuracy:  
0.9602  
Epoch 6666/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9594  
Epoch 6667/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9610  
Epoch 6668/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9603  
Epoch 6669/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9603  
Epoch 6670/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9597  
Epoch 6671/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy:  
0.9598  
Epoch 6672/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0338 - accuracy:  
0.9601  
Epoch 6673/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9609  
Epoch 6674/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9608  
Epoch 6675/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9598  
Epoch 6676/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0333 - accuracy:  
0.9601  
Epoch 6677/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0335 - accuracy:  
0.9593  
Epoch 6678/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0336 - accuracy:  
0.9609  
Epoch 6679/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9604  
Epoch 6680/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9588  
Epoch 6681/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9590  
Epoch 6682/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0342 - accuracy:  
0.9596  
Epoch 6683/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9593  
Epoch 6684/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9587  
Epoch 6685/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9596  
Epoch 6686/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0339 - accuracy:  
0.9596  
Epoch 6687/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0353 - accuracy:  
0.9605  
Epoch 6688/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy: 0.9599  
 Epoch 6689/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy: 0.9591  
 Epoch 6690/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy: 0.9595  
 Epoch 6691/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0351 - accuracy: 0.9605  
 Epoch 6692/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy: 0.9597  
 Epoch 6693/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0351 - accuracy: 0.9593  
 Epoch 6694/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0347 - accuracy: 0.9598  
 Epoch 6695/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0351 - accuracy: 0.9599  
 Epoch 6696/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy: 0.9599  
 Epoch 6697/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy: 0.9595  
 Epoch 6698/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0345 - accuracy: 0.9603  
 Epoch 6699/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0347 - accuracy: 0.9601  
 Epoch 6700/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy: 0.9587  
 Epoch 6701/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy: 0.9599  
 Epoch 6702/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0351 - accuracy: 0.9600  
 Epoch 6703/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0352 - accuracy: 0.9596  
 Epoch 6704/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy:  
0.9597  
Epoch 6705/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0344 - accuracy:  
0.9595  
Epoch 6706/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy:  
0.9590  
Epoch 6707/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0341 - accuracy:  
0.9598  
Epoch 6708/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9594  
Epoch 6709/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9599  
Epoch 6710/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9602  
Epoch 6711/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0334 - accuracy:  
0.9590  
Epoch 6712/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9600  
Epoch 6713/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9599  
Epoch 6714/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9604  
Epoch 6715/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9591  
Epoch 6716/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9601  
Epoch 6717/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9594  
Epoch 6718/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9591  
Epoch 6719/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9598  
Epoch 6720/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy: 0.9590  
Epoch 6721/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy: 0.9607  
Epoch 6722/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy: 0.9593  
Epoch 6723/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy: 0.9604  
Epoch 6724/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0334 - accuracy: 0.9600  
Epoch 6725/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy: 0.9606  
Epoch 6726/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0337 - accuracy: 0.9602  
Epoch 6727/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0341 - accuracy: 0.9603  
Epoch 6728/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy: 0.9594  
Epoch 6729/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy: 0.9592  
Epoch 6730/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0338 - accuracy: 0.9604  
Epoch 6731/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0336 - accuracy: 0.9594  
Epoch 6732/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy: 0.9595  
Epoch 6733/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy: 0.9600  
Epoch 6734/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0331 - accuracy: 0.9599  
Epoch 6735/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0332 - accuracy: 0.9598  
Epoch 6736/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9593  
Epoch 6737/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0336 - accuracy:  
0.9600  
Epoch 6738/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9600  
Epoch 6739/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0337 - accuracy:  
0.9598  
Epoch 6740/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9604  
Epoch 6741/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0339 - accuracy:  
0.9596  
Epoch 6742/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9590  
Epoch 6743/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0339 - accuracy:  
0.9597  
Epoch 6744/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0338 - accuracy:  
0.9597  
Epoch 6745/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0333 - accuracy:  
0.9587  
Epoch 6746/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0334 - accuracy:  
0.9601  
Epoch 6747/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9592  
Epoch 6748/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0330 - accuracy:  
0.9589  
Epoch 6749/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0350 - accuracy:  
0.9601  
Epoch 6750/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9596  
Epoch 6751/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy:  
0.9605  
Epoch 6752/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9596  
Epoch 6753/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9590  
Epoch 6754/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0337 - accuracy:  
0.9587  
Epoch 6755/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy:  
0.9594  
Epoch 6756/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0335 - accuracy:  
0.9592  
Epoch 6757/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy:  
0.9597  
Epoch 6758/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0339 - accuracy:  
0.9590  
Epoch 6759/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
0.9598  
Epoch 6760/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0333 - accuracy:  
0.9596  
Epoch 6761/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy:  
0.9594  
Epoch 6762/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9598  
Epoch 6763/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9597  
Epoch 6764/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0332 - accuracy:  
0.9593  
Epoch 6765/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0332 - accuracy:  
0.9592  
Epoch 6766/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9601  
Epoch 6767/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0333 - accuracy:  
0.9589  
Epoch 6768/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9598  
Epoch 6769/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9600  
Epoch 6770/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9605  
Epoch 6771/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0333 - accuracy:  
0.9594  
Epoch 6772/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9603  
Epoch 6773/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9603  
Epoch 6774/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
0.9593  
Epoch 6775/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9598  
Epoch 6776/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9590  
Epoch 6777/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9600  
Epoch 6778/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9596  
Epoch 6779/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0338 - accuracy:  
0.9603  
Epoch 6780/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy:  
0.9597  
Epoch 6781/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9586  
Epoch 6782/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy:  
0.9599  
Epoch 6783/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0343 - accuracy:  
0.9588  
Epoch 6784/100000

2/2 [=====] - 0s 119ms/step - loss: 0.0343 - accuracy:  
0.9590  
Epoch 6785/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0337 - accuracy:  
0.9604  
Epoch 6786/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy:  
0.9608  
Epoch 6787/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9597  
Epoch 6788/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9596  
Epoch 6789/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0339 - accuracy:  
0.9605  
Epoch 6790/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9593  
Epoch 6791/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0342 - accuracy:  
0.9596  
Epoch 6792/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy:  
0.9599  
Epoch 6793/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9596  
Epoch 6794/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9591  
Epoch 6795/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0339 - accuracy:  
0.9594  
Epoch 6796/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9600  
Epoch 6797/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0338 - accuracy:  
0.9592  
Epoch 6798/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9605  
Epoch 6799/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9608  
Epoch 6800/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9595  
Epoch 6801/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0336 - accuracy:  
0.9595  
Epoch 6802/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9601  
Epoch 6803/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0333 - accuracy:  
0.9593  
Epoch 6804/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9591  
Epoch 6805/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0333 - accuracy:  
0.9597  
Epoch 6806/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9599  
Epoch 6807/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9597  
Epoch 6808/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9587  
Epoch 6809/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9594  
Epoch 6810/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9595  
Epoch 6811/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy:  
0.9587  
Epoch 6812/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9610  
Epoch 6813/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0336 - accuracy:  
0.9591  
Epoch 6814/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9602  
Epoch 6815/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
0.9600  
Epoch 6816/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9601  
Epoch 6817/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9608  
Epoch 6818/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9595  
Epoch 6819/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0332 - accuracy:  
0.9592  
Epoch 6820/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9595  
Epoch 6821/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0352 - accuracy:  
0.9588  
Epoch 6822/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0340 - accuracy:  
0.9601  
Epoch 6823/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0349 - accuracy:  
0.9599  
Epoch 6824/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0363 - accuracy:  
0.9595  
Epoch 6825/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0352 - accuracy:  
0.9595  
Epoch 6826/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0356 - accuracy:  
0.9594  
Epoch 6827/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0361 - accuracy:  
0.9597  
Epoch 6828/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0352 - accuracy:  
0.9587  
Epoch 6829/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0344 - accuracy:  
0.9592  
Epoch 6830/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy:  
0.9597  
Epoch 6831/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0349 - accuracy:  
0.9592  
Epoch 6832/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0358 - accuracy:  
0.9595  
Epoch 6833/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0352 - accuracy:  
0.9598  
Epoch 6834/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0347 - accuracy:  
0.9600  
Epoch 6835/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0351 - accuracy:  
0.9590  
Epoch 6836/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0353 - accuracy:  
0.9601  
Epoch 6837/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy:  
0.9591  
Epoch 6838/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy:  
0.9600  
Epoch 6839/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0346 - accuracy:  
0.9597  
Epoch 6840/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy:  
0.9596  
Epoch 6841/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9599  
Epoch 6842/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0349 - accuracy:  
0.9599  
Epoch 6843/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0352 - accuracy:  
0.9596  
Epoch 6844/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy:  
0.9600  
Epoch 6845/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy:  
0.9597  
Epoch 6846/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0340 - accuracy:  
0.9583  
Epoch 6847/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9593  
Epoch 6848/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9604  
Epoch 6849/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0337 - accuracy:  
0.9602  
Epoch 6850/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9601  
Epoch 6851/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9598  
Epoch 6852/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9594  
Epoch 6853/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0333 - accuracy:  
0.9598  
Epoch 6854/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9601  
Epoch 6855/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9592  
Epoch 6856/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9595  
Epoch 6857/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0334 - accuracy:  
0.9595  
Epoch 6858/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0338 - accuracy:  
0.9594  
Epoch 6859/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9587  
Epoch 6860/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9598  
Epoch 6861/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9590  
Epoch 6862/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9594  
Epoch 6863/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0335 - accuracy:  
0.9598  
Epoch 6864/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy: 0.9587  
Epoch 6865/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy: 0.9596  
Epoch 6866/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0334 - accuracy: 0.9598  
Epoch 6867/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy: 0.9604  
Epoch 6868/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0334 - accuracy: 0.9610  
Epoch 6869/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0336 - accuracy: 0.9610  
Epoch 6870/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy: 0.9594  
Epoch 6871/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy: 0.9594  
Epoch 6872/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy: 0.9598  
Epoch 6873/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy: 0.9601  
Epoch 6874/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy: 0.9601  
Epoch 6875/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy: 0.9601  
Epoch 6876/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy: 0.9588  
Epoch 6877/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0343 - accuracy: 0.9597  
Epoch 6878/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy: 0.9589  
Epoch 6879/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy: 0.9595  
Epoch 6880/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0343 - accuracy:  
0.9591  
Epoch 6881/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9592  
Epoch 6882/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0341 - accuracy:  
0.9595  
Epoch 6883/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
0.9602  
Epoch 6884/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0341 - accuracy:  
0.9588  
Epoch 6885/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0344 - accuracy:  
0.9615  
Epoch 6886/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9602  
Epoch 6887/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0334 - accuracy:  
0.9598  
Epoch 6888/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0342 - accuracy:  
0.9602  
Epoch 6889/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9599  
Epoch 6890/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9603  
Epoch 6891/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9596  
Epoch 6892/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9596  
Epoch 6893/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9590  
Epoch 6894/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9595  
Epoch 6895/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9597  
Epoch 6896/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9600  
Epoch 6897/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0348 - accuracy:  
0.9592  
Epoch 6898/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9594  
Epoch 6899/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0336 - accuracy:  
0.9600  
Epoch 6900/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0345 - accuracy:  
0.9596  
Epoch 6901/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0339 - accuracy:  
0.9593  
Epoch 6902/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy:  
0.9597  
Epoch 6903/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy:  
0.9583  
Epoch 6904/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9589  
Epoch 6905/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0339 - accuracy:  
0.9590  
Epoch 6906/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0349 - accuracy:  
0.9592  
Epoch 6907/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9598  
Epoch 6908/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9595  
Epoch 6909/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0343 - accuracy:  
0.9593  
Epoch 6910/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0333 - accuracy:  
0.9594  
Epoch 6911/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0337 - accuracy:  
0.9615  
Epoch 6912/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9588  
Epoch 6913/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0338 - accuracy:  
0.9595  
Epoch 6914/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9603  
Epoch 6915/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9591  
Epoch 6916/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9603  
Epoch 6917/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0343 - accuracy:  
0.9597  
Epoch 6918/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9598  
Epoch 6919/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9604  
Epoch 6920/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy:  
0.9597  
Epoch 6921/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9597  
Epoch 6922/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0340 - accuracy:  
0.9598  
Epoch 6923/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9603  
Epoch 6924/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0335 - accuracy:  
0.9590  
Epoch 6925/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0337 - accuracy:  
0.9586  
Epoch 6926/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9596  
Epoch 6927/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0334 - accuracy:  
0.9601  
Epoch 6928/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9598  
Epoch 6929/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9602  
Epoch 6930/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0339 - accuracy:  
0.9601  
Epoch 6931/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0334 - accuracy:  
0.9590  
Epoch 6932/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0334 - accuracy:  
0.9591  
Epoch 6933/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9594  
Epoch 6934/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
0.9599  
Epoch 6935/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy:  
0.9590  
Epoch 6936/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0333 - accuracy:  
0.9592  
Epoch 6937/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9593  
Epoch 6938/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9592  
Epoch 6939/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0345 - accuracy:  
0.9601  
Epoch 6940/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9597  
Epoch 6941/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0337 - accuracy:  
0.9599  
Epoch 6942/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9598  
Epoch 6943/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0341 - accuracy:  
0.9600  
Epoch 6944/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0338 - accuracy:  
0.9602  
Epoch 6945/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9589  
Epoch 6946/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9597  
Epoch 6947/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy:  
0.9591  
Epoch 6948/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0333 - accuracy:  
0.9595  
Epoch 6949/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9588  
Epoch 6950/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9605  
Epoch 6951/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0339 - accuracy:  
0.9601  
Epoch 6952/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0330 - accuracy:  
0.9591  
Epoch 6953/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0337 - accuracy:  
0.9600  
Epoch 6954/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9604  
Epoch 6955/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
0.9599  
Epoch 6956/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9586  
Epoch 6957/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9601  
Epoch 6958/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9605  
Epoch 6959/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9597  
Epoch 6960/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
0.9598  
Epoch 6961/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0336 - accuracy:  
0.9597  
Epoch 6962/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0344 - accuracy:  
0.9600  
Epoch 6963/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9591  
Epoch 6964/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy:  
0.9601  
Epoch 6965/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9592  
Epoch 6966/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9593  
Epoch 6967/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9589  
Epoch 6968/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9603  
Epoch 6969/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0338 - accuracy:  
0.9604  
Epoch 6970/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0335 - accuracy:  
0.9590  
Epoch 6971/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9600  
Epoch 6972/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9588  
Epoch 6973/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0343 - accuracy:  
0.9601  
Epoch 6974/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9599  
Epoch 6975/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9589  
Epoch 6976/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9597  
Epoch 6977/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9597  
Epoch 6978/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9601  
Epoch 6979/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0336 - accuracy:  
0.9598  
Epoch 6980/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9597  
Epoch 6981/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9598  
Epoch 6982/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0336 - accuracy:  
0.9598  
Epoch 6983/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0334 - accuracy:  
0.9596  
Epoch 6984/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9592  
Epoch 6985/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy:  
0.9596  
Epoch 6986/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0332 - accuracy:  
0.9595  
Epoch 6987/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy:  
0.9598  
Epoch 6988/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
0.9597  
Epoch 6989/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
0.9595  
Epoch 6990/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9596  
Epoch 6991/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9595  
Epoch 6992/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0334 - accuracy:  
0.9596  
Epoch 6993/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0339 - accuracy:  
0.9607  
Epoch 6994/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9598  
Epoch 6995/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0340 - accuracy:  
0.9602  
Epoch 6996/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
0.9592  
Epoch 6997/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9593  
Epoch 6998/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0334 - accuracy:  
0.9603  
Epoch 6999/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9605  
Epoch 7000/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0336 - accuracy:  
0.9599  
Epoch 7001/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9597  
Epoch 7002/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9598  
Epoch 7003/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9603  
Epoch 7004/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9603  
Epoch 7005/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9602  
Epoch 7006/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9599  
Epoch 7007/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9600  
Epoch 7008/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0335 - accuracy:  
0.9605  
Epoch 7009/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy:  
0.9593  
Epoch 7010/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy:  
0.9603  
Epoch 7011/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9592  
Epoch 7012/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0351 - accuracy:  
0.9597  
Epoch 7013/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0356 - accuracy:  
0.9601  
Epoch 7014/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9596  
Epoch 7015/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0339 - accuracy:  
0.9603  
Epoch 7016/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0347 - accuracy:  
0.9590  
Epoch 7017/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0337 - accuracy:  
0.9590  
Epoch 7018/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9592  
Epoch 7019/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0335 - accuracy:  
0.9594  
Epoch 7020/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9604  
Epoch 7021/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0337 - accuracy:  
0.9597  
Epoch 7022/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9596  
Epoch 7023/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy:  
0.9605  
Epoch 7024/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9601  
Epoch 7025/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9598  
Epoch 7026/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9599  
Epoch 7027/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9592  
Epoch 7028/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9605  
Epoch 7029/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9599  
Epoch 7030/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0341 - accuracy:  
0.9594  
Epoch 7031/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0346 - accuracy:  
0.9596  
Epoch 7032/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9596  
Epoch 7033/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy:  
0.9599  
Epoch 7034/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0353 - accuracy:  
0.9581  
Epoch 7035/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9601  
Epoch 7036/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0350 - accuracy:  
0.9594  
Epoch 7037/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0363 - accuracy:  
0.9600  
Epoch 7038/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0350 - accuracy:  
0.9599  
Epoch 7039/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy:  
0.9599  
Epoch 7040/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0351 - accuracy:  
0.9593  
Epoch 7041/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0349 - accuracy:  
0.9605  
Epoch 7042/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0349 - accuracy:  
0.9590  
Epoch 7043/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0365 - accuracy:  
0.9604  
Epoch 7044/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0357 - accuracy:  
0.9604  
Epoch 7045/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy:  
0.9600  
Epoch 7046/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0352 - accuracy:  
0.9598  
Epoch 7047/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy:  
0.9597  
Epoch 7048/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy:  
0.9596  
Epoch 7049/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
0.9592  
Epoch 7050/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9594  
Epoch 7051/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy:  
0.9595  
Epoch 7052/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0348 - accuracy:  
0.9595  
Epoch 7053/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy:  
0.9597  
Epoch 7054/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy:  
0.9598  
Epoch 7055/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0343 - accuracy:  
0.9599  
Epoch 7056/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy: 0.9605  
Epoch 7057/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy: 0.9601  
Epoch 7058/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy: 0.9607  
Epoch 7059/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy: 0.9604  
Epoch 7060/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy: 0.9602  
Epoch 7061/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy: 0.9607  
Epoch 7062/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0334 - accuracy: 0.9598  
Epoch 7063/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy: 0.9594  
Epoch 7064/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy: 0.9596  
Epoch 7065/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0333 - accuracy: 0.9596  
Epoch 7066/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy: 0.9594  
Epoch 7067/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0341 - accuracy: 0.9592  
Epoch 7068/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0343 - accuracy: 0.9599  
Epoch 7069/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0340 - accuracy: 0.9594  
Epoch 7070/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy: 0.9608  
Epoch 7071/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy: 0.9603  
Epoch 7072/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy:  
0.9598  
Epoch 7073/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0335 - accuracy:  
0.9594  
Epoch 7074/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy:  
0.9595  
Epoch 7075/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0344 - accuracy:  
0.9603  
Epoch 7076/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy:  
0.9603  
Epoch 7077/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9595  
Epoch 7078/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9602  
Epoch 7079/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9595  
Epoch 7080/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9609  
Epoch 7081/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9593  
Epoch 7082/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9602  
Epoch 7083/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9597  
Epoch 7084/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9591  
Epoch 7085/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9597  
Epoch 7086/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0336 - accuracy:  
0.9600  
Epoch 7087/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9601  
Epoch 7088/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy: 0.9595  
Epoch 7089/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy: 0.9609  
Epoch 7090/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0337 - accuracy: 0.9593  
Epoch 7091/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy: 0.9598  
Epoch 7092/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy: 0.9593  
Epoch 7093/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0346 - accuracy: 0.9593  
Epoch 7094/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy: 0.9590  
Epoch 7095/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy: 0.9596  
Epoch 7096/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0339 - accuracy: 0.9603  
Epoch 7097/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy: 0.9593  
Epoch 7098/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy: 0.9603  
Epoch 7099/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy: 0.9603  
Epoch 7100/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy: 0.9601  
Epoch 7101/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy: 0.9600  
Epoch 7102/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy: 0.9588  
Epoch 7103/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0340 - accuracy: 0.9596  
Epoch 7104/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9612  
Epoch 7105/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9596  
Epoch 7106/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy:  
0.9591  
Epoch 7107/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9591  
Epoch 7108/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9603  
Epoch 7109/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9588  
Epoch 7110/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0336 - accuracy:  
0.9601  
Epoch 7111/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy:  
0.9600  
Epoch 7112/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0338 - accuracy:  
0.9591  
Epoch 7113/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0334 - accuracy:  
0.9594  
Epoch 7114/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9594  
Epoch 7115/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9600  
Epoch 7116/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0334 - accuracy:  
0.9595  
Epoch 7117/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9600  
Epoch 7118/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9585  
Epoch 7119/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9593  
Epoch 7120/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9599  
Epoch 7121/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9608  
Epoch 7122/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9600  
Epoch 7123/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9605  
Epoch 7124/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9606  
Epoch 7125/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0333 - accuracy:  
0.9598  
Epoch 7126/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9594  
Epoch 7127/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9601  
Epoch 7128/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0333 - accuracy:  
0.9600  
Epoch 7129/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0338 - accuracy:  
0.9599  
Epoch 7130/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9594  
Epoch 7131/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy:  
0.9596  
Epoch 7132/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9596  
Epoch 7133/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0335 - accuracy:  
0.9596  
Epoch 7134/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0337 - accuracy:  
0.9598  
Epoch 7135/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9593  
Epoch 7136/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9595  
Epoch 7137/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0338 - accuracy:  
0.9595  
Epoch 7138/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0349 - accuracy:  
0.9600  
Epoch 7139/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy:  
0.9599  
Epoch 7140/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0339 - accuracy:  
0.9604  
Epoch 7141/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy:  
0.9601  
Epoch 7142/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9612  
Epoch 7143/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9596  
Epoch 7144/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0341 - accuracy:  
0.9589  
Epoch 7145/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy:  
0.9606  
Epoch 7146/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9603  
Epoch 7147/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy:  
0.9598  
Epoch 7148/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0338 - accuracy:  
0.9592  
Epoch 7149/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0341 - accuracy:  
0.9601  
Epoch 7150/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9582  
Epoch 7151/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy:  
0.9603  
Epoch 7152/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy:  
0.9601  
Epoch 7153/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy:  
0.9597  
Epoch 7154/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0351 - accuracy:  
0.9593  
Epoch 7155/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy:  
0.9585  
Epoch 7156/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0342 - accuracy:  
0.9601  
Epoch 7157/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0344 - accuracy:  
0.9600  
Epoch 7158/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0337 - accuracy:  
0.9593  
Epoch 7159/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0339 - accuracy:  
0.9596  
Epoch 7160/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0337 - accuracy:  
0.9599  
Epoch 7161/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9598  
Epoch 7162/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9586  
Epoch 7163/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9601  
Epoch 7164/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9598  
Epoch 7165/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9593  
Epoch 7166/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9605  
Epoch 7167/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9594  
Epoch 7168/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9594  
Epoch 7169/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9596  
Epoch 7170/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9595  
Epoch 7171/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9596  
Epoch 7172/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9595  
Epoch 7173/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy:  
0.9593  
Epoch 7174/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9594  
Epoch 7175/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0337 - accuracy:  
0.9595  
Epoch 7176/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0335 - accuracy:  
0.9597  
Epoch 7177/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0334 - accuracy:  
0.9607  
Epoch 7178/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
0.9593  
Epoch 7179/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9594  
Epoch 7180/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9590  
Epoch 7181/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0337 - accuracy:  
0.9591  
Epoch 7182/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9589  
Epoch 7183/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9602  
Epoch 7184/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0341 - accuracy:  
0.9602  
Epoch 7185/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9579  
Epoch 7186/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0338 - accuracy:  
0.9592  
Epoch 7187/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0335 - accuracy:  
0.9593  
Epoch 7188/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9597  
Epoch 7189/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
0.9604  
Epoch 7190/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9600  
Epoch 7191/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9603  
Epoch 7192/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9593  
Epoch 7193/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
0.9593  
Epoch 7194/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9589  
Epoch 7195/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0340 - accuracy:  
0.9592  
Epoch 7196/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0333 - accuracy:  
0.9588  
Epoch 7197/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0338 - accuracy:  
0.9589  
Epoch 7198/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9596  
Epoch 7199/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9598  
Epoch 7200/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9600  
Epoch 7201/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9587  
Epoch 7202/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9594  
Epoch 7203/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0331 - accuracy:  
0.9588  
Epoch 7204/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9607  
Epoch 7205/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0341 - accuracy:  
0.9596  
Epoch 7206/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0336 - accuracy:  
0.9600  
Epoch 7207/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0350 - accuracy:  
0.9600  
Epoch 7208/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0336 - accuracy:  
0.9580  
Epoch 7209/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9601  
Epoch 7210/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0343 - accuracy:  
0.9605  
Epoch 7211/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0337 - accuracy:  
0.9590  
Epoch 7212/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0337 - accuracy:  
0.9605  
Epoch 7213/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9588  
Epoch 7214/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0336 - accuracy:  
0.9598  
Epoch 7215/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9601  
Epoch 7216/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0330 - accuracy: 0.9599  
Epoch 7217/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy: 0.9603  
Epoch 7218/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy: 0.9607  
Epoch 7219/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy: 0.9599  
Epoch 7220/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy: 0.9594  
Epoch 7221/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy: 0.9594  
Epoch 7222/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy: 0.9597  
Epoch 7223/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0339 - accuracy: 0.9602  
Epoch 7224/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0340 - accuracy: 0.9615  
Epoch 7225/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy: 0.9591  
Epoch 7226/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0334 - accuracy: 0.9594  
Epoch 7227/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy: 0.9596  
Epoch 7228/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy: 0.9600  
Epoch 7229/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy: 0.9596  
Epoch 7230/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy: 0.9598  
Epoch 7231/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy: 0.9598  
Epoch 7232/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0355 - accuracy: 0.9599  
Epoch 7233/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0367 - accuracy: 0.9603  
Epoch 7234/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0352 - accuracy: 0.9592  
Epoch 7235/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy: 0.9594  
Epoch 7236/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0355 - accuracy: 0.9598  
Epoch 7237/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0349 - accuracy: 0.9601  
Epoch 7238/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy: 0.9601  
Epoch 7239/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy: 0.9597  
Epoch 7240/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy: 0.9598  
Epoch 7241/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0341 - accuracy: 0.9593  
Epoch 7242/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy: 0.9597  
Epoch 7243/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy: 0.9597  
Epoch 7244/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy: 0.9594  
Epoch 7245/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0340 - accuracy: 0.9605  
Epoch 7246/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy: 0.9601  
Epoch 7247/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy: 0.9586  
Epoch 7248/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9600  
Epoch 7249/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9586  
Epoch 7250/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0338 - accuracy:  
0.9601  
Epoch 7251/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9592  
Epoch 7252/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9599  
Epoch 7253/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9588  
Epoch 7254/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0339 - accuracy:  
0.9606  
Epoch 7255/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy:  
0.9602  
Epoch 7256/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0342 - accuracy:  
0.9594  
Epoch 7257/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9594  
Epoch 7258/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
0.9600  
Epoch 7259/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0334 - accuracy:  
0.9593  
Epoch 7260/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0330 - accuracy:  
0.9600  
Epoch 7261/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0331 - accuracy:  
0.9590  
Epoch 7262/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9600  
Epoch 7263/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9594  
Epoch 7264/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9599  
Epoch 7265/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0334 - accuracy:  
0.9606  
Epoch 7266/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy:  
0.9600  
Epoch 7267/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0334 - accuracy:  
0.9594  
Epoch 7268/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0334 - accuracy:  
0.9600  
Epoch 7269/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0343 - accuracy:  
0.9608  
Epoch 7270/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9590  
Epoch 7271/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9595  
Epoch 7272/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9591  
Epoch 7273/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9596  
Epoch 7274/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9594  
Epoch 7275/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0329 - accuracy:  
0.9596  
Epoch 7276/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9597  
Epoch 7277/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9600  
Epoch 7278/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0339 - accuracy:  
0.9598  
Epoch 7279/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9599  
Epoch 7280/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9601  
Epoch 7281/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9590  
Epoch 7282/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0337 - accuracy:  
0.9596  
Epoch 7283/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9596  
Epoch 7284/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy:  
0.9585  
Epoch 7285/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9597  
Epoch 7286/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9598  
Epoch 7287/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0336 - accuracy:  
0.9594  
Epoch 7288/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9597  
Epoch 7289/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0330 - accuracy:  
0.9593  
Epoch 7290/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9592  
Epoch 7291/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9593  
Epoch 7292/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9595  
Epoch 7293/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0331 - accuracy:  
0.9593  
Epoch 7294/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9589  
Epoch 7295/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0333 - accuracy:  
0.9602  
Epoch 7296/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0334 - accuracy:  
0.9598  
Epoch 7297/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9592  
Epoch 7298/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0334 - accuracy:  
0.9599  
Epoch 7299/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0334 - accuracy:  
0.9599  
Epoch 7300/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0335 - accuracy:  
0.9595  
Epoch 7301/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0341 - accuracy:  
0.9599  
Epoch 7302/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0333 - accuracy:  
0.9594  
Epoch 7303/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9601  
Epoch 7304/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9602  
Epoch 7305/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy:  
0.9604  
Epoch 7306/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0346 - accuracy:  
0.9595  
Epoch 7307/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0353 - accuracy:  
0.9593  
Epoch 7308/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9595  
Epoch 7309/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy:  
0.9594  
Epoch 7310/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0366 - accuracy:  
0.9604  
Epoch 7311/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0356 - accuracy:  
0.9609  
Epoch 7312/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy: 0.9598  
Epoch 7313/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0359 - accuracy: 0.9595  
Epoch 7314/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0356 - accuracy: 0.9603  
Epoch 7315/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy: 0.9596  
Epoch 7316/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy: 0.9597  
Epoch 7317/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy: 0.9586  
Epoch 7318/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy: 0.9597  
Epoch 7319/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy: 0.9596  
Epoch 7320/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0337 - accuracy: 0.9594  
Epoch 7321/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0342 - accuracy: 0.9589  
Epoch 7322/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy: 0.9597  
Epoch 7323/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy: 0.9587  
Epoch 7324/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy: 0.9598  
Epoch 7325/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy: 0.9603  
Epoch 7326/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy: 0.9603  
Epoch 7327/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0334 - accuracy: 0.9595  
Epoch 7328/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9611  
Epoch 7329/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0335 - accuracy:  
0.9597  
Epoch 7330/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9604  
Epoch 7331/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9599  
Epoch 7332/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9599  
Epoch 7333/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9601  
Epoch 7334/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0335 - accuracy:  
0.9605  
Epoch 7335/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy:  
0.9593  
Epoch 7336/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9603  
Epoch 7337/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy:  
0.9591  
Epoch 7338/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy:  
0.9597  
Epoch 7339/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9605  
Epoch 7340/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9604  
Epoch 7341/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9598  
Epoch 7342/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0333 - accuracy:  
0.9599  
Epoch 7343/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy:  
0.9595  
Epoch 7344/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9595  
Epoch 7345/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0332 - accuracy:  
0.9602  
Epoch 7346/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0331 - accuracy:  
0.9602  
Epoch 7347/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9597  
Epoch 7348/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0330 - accuracy:  
0.9599  
Epoch 7349/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0333 - accuracy:  
0.9597  
Epoch 7350/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy:  
0.9591  
Epoch 7351/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9599  
Epoch 7352/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9602  
Epoch 7353/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9603  
Epoch 7354/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9596  
Epoch 7355/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9602  
Epoch 7356/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9596  
Epoch 7357/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9582  
Epoch 7358/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9601  
Epoch 7359/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9604  
Epoch 7360/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9602  
Epoch 7361/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9590  
Epoch 7362/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9596  
Epoch 7363/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9597  
Epoch 7364/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9607  
Epoch 7365/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9604  
Epoch 7366/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy:  
0.9601  
Epoch 7367/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy:  
0.9594  
Epoch 7368/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9586  
Epoch 7369/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9602  
Epoch 7370/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy:  
0.9602  
Epoch 7371/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9593  
Epoch 7372/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0339 - accuracy:  
0.9588  
Epoch 7373/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0351 - accuracy:  
0.9591  
Epoch 7374/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9595  
Epoch 7375/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0351 - accuracy:  
0.9593  
Epoch 7376/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0363 - accuracy: 0.9602  
Epoch 7377/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0360 - accuracy: 0.9600  
Epoch 7378/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy: 0.9594  
Epoch 7379/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0342 - accuracy: 0.9588  
Epoch 7380/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy: 0.9596  
Epoch 7381/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy: 0.9593  
Epoch 7382/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0344 - accuracy: 0.9600  
Epoch 7383/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy: 0.9597  
Epoch 7384/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0349 - accuracy: 0.9588  
Epoch 7385/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0338 - accuracy: 0.9597  
Epoch 7386/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy: 0.9603  
Epoch 7387/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0346 - accuracy: 0.9601  
Epoch 7388/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy: 0.9598  
Epoch 7389/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0334 - accuracy: 0.9602  
Epoch 7390/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy: 0.9593  
Epoch 7391/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy: 0.9594  
Epoch 7392/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9600  
Epoch 7393/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9597  
Epoch 7394/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0334 - accuracy:  
0.9601  
Epoch 7395/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0337 - accuracy:  
0.9593  
Epoch 7396/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0335 - accuracy:  
0.9591  
Epoch 7397/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9598  
Epoch 7398/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0329 - accuracy:  
0.9582  
Epoch 7399/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9589  
Epoch 7400/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0338 - accuracy:  
0.9603  
Epoch 7401/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0341 - accuracy:  
0.9594  
Epoch 7402/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9602  
Epoch 7403/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0334 - accuracy:  
0.9602  
Epoch 7404/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy:  
0.9589  
Epoch 7405/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
0.9602  
Epoch 7406/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0344 - accuracy:  
0.9597  
Epoch 7407/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0333 - accuracy:  
0.9587  
Epoch 7408/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9599  
Epoch 7409/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0335 - accuracy:  
0.9598  
Epoch 7410/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9605  
Epoch 7411/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9601  
Epoch 7412/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9605  
Epoch 7413/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0333 - accuracy:  
0.9595  
Epoch 7414/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9600  
Epoch 7415/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0352 - accuracy:  
0.9594  
Epoch 7416/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0357 - accuracy:  
0.9601  
Epoch 7417/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy:  
0.9603  
Epoch 7418/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0343 - accuracy:  
0.9591  
Epoch 7419/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0358 - accuracy:  
0.9594  
Epoch 7420/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0352 - accuracy:  
0.9595  
Epoch 7421/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy:  
0.9589  
Epoch 7422/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9598  
Epoch 7423/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
0.9590  
Epoch 7424/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy:  
0.9596  
Epoch 7425/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0343 - accuracy:  
0.9595  
Epoch 7426/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9590  
Epoch 7427/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0340 - accuracy:  
0.9594  
Epoch 7428/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0337 - accuracy:  
0.9598  
Epoch 7429/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9591  
Epoch 7430/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy:  
0.9607  
Epoch 7431/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9594  
Epoch 7432/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0346 - accuracy:  
0.9597  
Epoch 7433/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0337 - accuracy:  
0.9602  
Epoch 7434/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0341 - accuracy:  
0.9600  
Epoch 7435/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9601  
Epoch 7436/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9590  
Epoch 7437/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9595  
Epoch 7438/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9603  
Epoch 7439/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9595  
Epoch 7440/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9591  
Epoch 7441/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0333 - accuracy:  
0.9599  
Epoch 7442/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9592  
Epoch 7443/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9597  
Epoch 7444/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9594  
Epoch 7445/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy:  
0.9599  
Epoch 7446/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9599  
Epoch 7447/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9591  
Epoch 7448/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0335 - accuracy:  
0.9594  
Epoch 7449/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9601  
Epoch 7450/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9597  
Epoch 7451/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9599  
Epoch 7452/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9586  
Epoch 7453/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0332 - accuracy:  
0.9595  
Epoch 7454/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9592  
Epoch 7455/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9601  
Epoch 7456/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0336 - accuracy:  
0.9598  
Epoch 7457/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9596  
Epoch 7458/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9596  
Epoch 7459/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0337 - accuracy:  
0.9604  
Epoch 7460/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9603  
Epoch 7461/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0337 - accuracy:  
0.9593  
Epoch 7462/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9590  
Epoch 7463/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy:  
0.9600  
Epoch 7464/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9599  
Epoch 7465/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0331 - accuracy:  
0.9590  
Epoch 7466/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9592  
Epoch 7467/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9601  
Epoch 7468/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0332 - accuracy:  
0.9597  
Epoch 7469/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9600  
Epoch 7470/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9593  
Epoch 7471/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9595  
Epoch 7472/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy: 0.9601  
 Epoch 7473/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0345 - accuracy: 0.9601  
 Epoch 7474/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy: 0.9587  
 Epoch 7475/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy: 0.9605  
 Epoch 7476/100000  
 2/2 [=====] - 0s 120ms/step - loss: 0.0358 - accuracy: 0.9601  
 Epoch 7477/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0373 - accuracy: 0.9601  
 Epoch 7478/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0355 - accuracy: 0.9599  
 Epoch 7479/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy: 0.9598  
 Epoch 7480/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy: 0.9593  
 Epoch 7481/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0345 - accuracy: 0.9595  
 Epoch 7482/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy: 0.9602  
 Epoch 7483/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy: 0.9592  
 Epoch 7484/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy: 0.9592  
 Epoch 7485/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy: 0.9589  
 Epoch 7486/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy: 0.9599  
 Epoch 7487/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0335 - accuracy: 0.9611  
 Epoch 7488/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy:  
0.9602  
Epoch 7489/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9586  
Epoch 7490/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9601  
Epoch 7491/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9593  
Epoch 7492/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0335 - accuracy:  
0.9604  
Epoch 7493/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9600  
Epoch 7494/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0335 - accuracy:  
0.9592  
Epoch 7495/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9601  
Epoch 7496/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9595  
Epoch 7497/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9598  
Epoch 7498/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9590  
Epoch 7499/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0339 - accuracy:  
0.9601  
Epoch 7500/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0340 - accuracy:  
0.9594  
Epoch 7501/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9583  
Epoch 7502/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0335 - accuracy:  
0.9585  
Epoch 7503/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0333 - accuracy:  
0.9592  
Epoch 7504/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy: 0.9605  
Epoch 7505/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy: 0.9597  
Epoch 7506/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0332 - accuracy: 0.9599  
Epoch 7507/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy: 0.9596  
Epoch 7508/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy: 0.9598  
Epoch 7509/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy: 0.9595  
Epoch 7510/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy: 0.9598  
Epoch 7511/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy: 0.9611  
Epoch 7512/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy: 0.9595  
Epoch 7513/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy: 0.9603  
Epoch 7514/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy: 0.9597  
Epoch 7515/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy: 0.9598  
Epoch 7516/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0331 - accuracy: 0.9591  
Epoch 7517/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0334 - accuracy: 0.9599  
Epoch 7518/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy: 0.9596  
Epoch 7519/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy: 0.9600  
Epoch 7520/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0336 - accuracy: 0.9597  
Epoch 7521/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0338 - accuracy: 0.9593  
Epoch 7522/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy: 0.9590  
Epoch 7523/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy: 0.9592  
Epoch 7524/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy: 0.9602  
Epoch 7525/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy: 0.9585  
Epoch 7526/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy: 0.9599  
Epoch 7527/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy: 0.9595  
Epoch 7528/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0337 - accuracy: 0.9587  
Epoch 7529/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0356 - accuracy: 0.9596  
Epoch 7530/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy: 0.9598  
Epoch 7531/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy: 0.9601  
Epoch 7532/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy: 0.9580  
Epoch 7533/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy: 0.9600  
Epoch 7534/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy: 0.9598  
Epoch 7535/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0335 - accuracy: 0.9597  
Epoch 7536/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9600  
Epoch 7537/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9596  
Epoch 7538/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9600  
Epoch 7539/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0336 - accuracy:  
0.9595  
Epoch 7540/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9602  
Epoch 7541/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0335 - accuracy:  
0.9596  
Epoch 7542/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9591  
Epoch 7543/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0356 - accuracy:  
0.9592  
Epoch 7544/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy:  
0.9604  
Epoch 7545/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0352 - accuracy:  
0.9604  
Epoch 7546/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy:  
0.9601  
Epoch 7547/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0344 - accuracy:  
0.9598  
Epoch 7548/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9598  
Epoch 7549/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9592  
Epoch 7550/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy:  
0.9605  
Epoch 7551/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0339 - accuracy:  
0.9599  
Epoch 7552/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy: 0.9605  
Epoch 7553/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy: 0.9593  
Epoch 7554/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0336 - accuracy: 0.9585  
Epoch 7555/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0337 - accuracy: 0.9588  
Epoch 7556/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy: 0.9592  
Epoch 7557/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy: 0.9592  
Epoch 7558/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy: 0.9609  
Epoch 7559/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy: 0.9592  
Epoch 7560/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0334 - accuracy: 0.9595  
Epoch 7561/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy: 0.9601  
Epoch 7562/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0339 - accuracy: 0.9605  
Epoch 7563/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0337 - accuracy: 0.9609  
Epoch 7564/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy: 0.9590  
Epoch 7565/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0336 - accuracy: 0.9600  
Epoch 7566/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0329 - accuracy: 0.9602  
Epoch 7567/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy: 0.9590  
Epoch 7568/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy: 0.9588  
Epoch 7569/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy: 0.9599  
Epoch 7570/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0334 - accuracy: 0.9597  
Epoch 7571/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy: 0.9592  
Epoch 7572/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy: 0.9592  
Epoch 7573/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy: 0.9602  
Epoch 7574/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy: 0.9602  
Epoch 7575/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy: 0.9604  
Epoch 7576/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy: 0.9596  
Epoch 7577/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy: 0.9601  
Epoch 7578/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy: 0.9599  
Epoch 7579/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy: 0.9604  
Epoch 7580/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0330 - accuracy: 0.9602  
Epoch 7581/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy: 0.9594  
Epoch 7582/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0337 - accuracy: 0.9599  
Epoch 7583/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0334 - accuracy: 0.9596  
Epoch 7584/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9592  
Epoch 7585/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9606  
Epoch 7586/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0332 - accuracy:  
0.9596  
Epoch 7587/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0337 - accuracy:  
0.9600  
Epoch 7588/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0329 - accuracy:  
0.9587  
Epoch 7589/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9592  
Epoch 7590/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9599  
Epoch 7591/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0335 - accuracy:  
0.9610  
Epoch 7592/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9593  
Epoch 7593/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9593  
Epoch 7594/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy:  
0.9588  
Epoch 7595/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9602  
Epoch 7596/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9608  
Epoch 7597/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0333 - accuracy:  
0.9593  
Epoch 7598/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9596  
Epoch 7599/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9592  
Epoch 7600/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0337 - accuracy: 0.9591  
Epoch 7601/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy: 0.9601  
Epoch 7602/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy: 0.9601  
Epoch 7603/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy: 0.9599  
Epoch 7604/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0336 - accuracy: 0.9601  
Epoch 7605/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy: 0.9590  
Epoch 7606/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy: 0.9588  
Epoch 7607/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0344 - accuracy: 0.9606  
Epoch 7608/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy: 0.9594  
Epoch 7609/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy: 0.9602  
Epoch 7610/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0341 - accuracy: 0.9596  
Epoch 7611/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy: 0.9602  
Epoch 7612/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy: 0.9600  
Epoch 7613/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy: 0.9596  
Epoch 7614/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy: 0.9596  
Epoch 7615/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy: 0.9597  
Epoch 7616/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy:  
0.9598  
Epoch 7617/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9595  
Epoch 7618/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9600  
Epoch 7619/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9596  
Epoch 7620/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9598  
Epoch 7621/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9594  
Epoch 7622/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy:  
0.9591  
Epoch 7623/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9598  
Epoch 7624/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9596  
Epoch 7625/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0335 - accuracy:  
0.9599  
Epoch 7626/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0335 - accuracy:  
0.9595  
Epoch 7627/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0338 - accuracy:  
0.9601  
Epoch 7628/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy:  
0.9588  
Epoch 7629/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9599  
Epoch 7630/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0339 - accuracy:  
0.9598  
Epoch 7631/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
0.9605  
Epoch 7632/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0337 - accuracy:  
0.9599  
Epoch 7633/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9604  
Epoch 7634/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9594  
Epoch 7635/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy:  
0.9599  
Epoch 7636/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
0.9592  
Epoch 7637/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy:  
0.9596  
Epoch 7638/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy:  
0.9596  
Epoch 7639/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy:  
0.9602  
Epoch 7640/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0343 - accuracy:  
0.9598  
Epoch 7641/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9596  
Epoch 7642/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0335 - accuracy:  
0.9598  
Epoch 7643/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9605  
Epoch 7644/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9595  
Epoch 7645/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9596  
Epoch 7646/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0334 - accuracy:  
0.9605  
Epoch 7647/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0339 - accuracy:  
0.9599  
Epoch 7648/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy: 0.9588  
Epoch 7649/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy: 0.9597  
Epoch 7650/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy: 0.9592  
Epoch 7651/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy: 0.9599  
Epoch 7652/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0340 - accuracy: 0.9593  
Epoch 7653/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy: 0.9608  
Epoch 7654/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy: 0.9586  
Epoch 7655/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy: 0.9597  
Epoch 7656/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy: 0.9597  
Epoch 7657/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy: 0.9592  
Epoch 7658/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy: 0.9594  
Epoch 7659/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy: 0.9596  
Epoch 7660/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0337 - accuracy: 0.9612  
Epoch 7661/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy: 0.9593  
Epoch 7662/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy: 0.9608  
Epoch 7663/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy: 0.9602  
Epoch 7664/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy: 0.9598  
Epoch 7665/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy: 0.9601  
Epoch 7666/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy: 0.9599  
Epoch 7667/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy: 0.9597  
Epoch 7668/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy: 0.9602  
Epoch 7669/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy: 0.9593  
Epoch 7670/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0331 - accuracy: 0.9594  
Epoch 7671/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy: 0.9601  
Epoch 7672/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0333 - accuracy: 0.9592  
Epoch 7673/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0334 - accuracy: 0.9603  
Epoch 7674/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy: 0.9605  
Epoch 7675/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy: 0.9592  
Epoch 7676/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0341 - accuracy: 0.9593  
Epoch 7677/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy: 0.9593  
Epoch 7678/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy: 0.9597  
Epoch 7679/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy: 0.9600  
Epoch 7680/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy: 0.9597  
Epoch 7681/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy: 0.9595  
Epoch 7682/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy: 0.9591  
Epoch 7683/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0328 - accuracy: 0.9591  
Epoch 7684/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0336 - accuracy: 0.9601  
Epoch 7685/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy: 0.9609  
Epoch 7686/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0340 - accuracy: 0.9588  
Epoch 7687/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy: 0.9598  
Epoch 7688/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0336 - accuracy: 0.9595  
Epoch 7689/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy: 0.9598  
Epoch 7690/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0344 - accuracy: 0.9595  
Epoch 7691/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy: 0.9597  
Epoch 7692/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy: 0.9588  
Epoch 7693/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0368 - accuracy: 0.9593  
Epoch 7694/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0357 - accuracy: 0.9604  
Epoch 7695/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0361 - accuracy: 0.9598  
Epoch 7696/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0359 - accuracy: 0.9589  
Epoch 7697/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0342 - accuracy: 0.9590  
Epoch 7698/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0357 - accuracy: 0.9592  
Epoch 7699/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0341 - accuracy: 0.9599  
Epoch 7700/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0342 - accuracy: 0.9596  
Epoch 7701/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy: 0.9596  
Epoch 7702/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy: 0.9599  
Epoch 7703/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0340 - accuracy: 0.9603  
Epoch 7704/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy: 0.9597  
Epoch 7705/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy: 0.9607  
Epoch 7706/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy: 0.9596  
Epoch 7707/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy: 0.9596  
Epoch 7708/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy: 0.9585  
Epoch 7709/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy: 0.9598  
Epoch 7710/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy: 0.9597  
Epoch 7711/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy: 0.9600  
Epoch 7712/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy: 0.9598  
 Epoch 7713/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy: 0.9598  
 Epoch 7714/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0329 - accuracy: 0.9596  
 Epoch 7715/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy: 0.9604  
 Epoch 7716/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy: 0.9590  
 Epoch 7717/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy: 0.9604  
 Epoch 7718/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy: 0.9596  
 Epoch 7719/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy: 0.9608  
 Epoch 7720/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy: 0.9596  
 Epoch 7721/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy: 0.9582  
 Epoch 7722/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy: 0.9589  
 Epoch 7723/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0330 - accuracy: 0.9598  
 Epoch 7724/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy: 0.9611  
 Epoch 7725/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy: 0.9598  
 Epoch 7726/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy: 0.9601  
 Epoch 7727/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0335 - accuracy: 0.9594  
 Epoch 7728/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9594  
Epoch 7729/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9590  
Epoch 7730/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0339 - accuracy:  
0.9599  
Epoch 7731/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9598  
Epoch 7732/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0352 - accuracy:  
0.9595  
Epoch 7733/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
0.9594  
Epoch 7734/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0342 - accuracy:  
0.9597  
Epoch 7735/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy:  
0.9602  
Epoch 7736/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy:  
0.9593  
Epoch 7737/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9599  
Epoch 7738/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9589  
Epoch 7739/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9598  
Epoch 7740/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9594  
Epoch 7741/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0334 - accuracy:  
0.9594  
Epoch 7742/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0336 - accuracy:  
0.9594  
Epoch 7743/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0339 - accuracy:  
0.9592  
Epoch 7744/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy: 0.9603  
Epoch 7745/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy: 0.9597  
Epoch 7746/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy: 0.9587  
Epoch 7747/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0336 - accuracy: 0.9593  
Epoch 7748/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy: 0.9594  
Epoch 7749/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0346 - accuracy: 0.9589  
Epoch 7750/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0337 - accuracy: 0.9603  
Epoch 7751/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy: 0.9588  
Epoch 7752/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy: 0.9590  
Epoch 7753/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0330 - accuracy: 0.9585  
Epoch 7754/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy: 0.9605  
Epoch 7755/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy: 0.9602  
Epoch 7756/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy: 0.9602  
Epoch 7757/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy: 0.9603  
Epoch 7758/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0334 - accuracy: 0.9596  
Epoch 7759/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy: 0.9591  
Epoch 7760/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0336 - accuracy:  
0.9601  
Epoch 7761/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9598  
Epoch 7762/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9602  
Epoch 7763/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9591  
Epoch 7764/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9602  
Epoch 7765/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy:  
0.9602  
Epoch 7766/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9592  
Epoch 7767/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9594  
Epoch 7768/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9596  
Epoch 7769/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9600  
Epoch 7770/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9601  
Epoch 7771/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9593  
Epoch 7772/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9591  
Epoch 7773/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9603  
Epoch 7774/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0337 - accuracy:  
0.9606  
Epoch 7775/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0333 - accuracy:  
0.9595  
Epoch 7776/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy: 0.9598  
Epoch 7777/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy: 0.9597  
Epoch 7778/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0334 - accuracy: 0.9597  
Epoch 7779/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy: 0.9594  
Epoch 7780/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0331 - accuracy: 0.9601  
Epoch 7781/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy: 0.9598  
Epoch 7782/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy: 0.9589  
Epoch 7783/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0337 - accuracy: 0.9600  
Epoch 7784/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy: 0.9592  
Epoch 7785/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy: 0.9592  
Epoch 7786/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy: 0.9610  
Epoch 7787/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy: 0.9593  
Epoch 7788/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy: 0.9600  
Epoch 7789/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy: 0.9603  
Epoch 7790/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0329 - accuracy: 0.9591  
Epoch 7791/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy: 0.9591  
Epoch 7792/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy:  
0.9597  
Epoch 7793/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9598  
Epoch 7794/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9602  
Epoch 7795/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9601  
Epoch 7796/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9596  
Epoch 7797/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9596  
Epoch 7798/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9590  
Epoch 7799/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9597  
Epoch 7800/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9598  
Epoch 7801/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9592  
Epoch 7802/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0333 - accuracy:  
0.9602  
Epoch 7803/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9594  
Epoch 7804/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9596  
Epoch 7805/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9594  
Epoch 7806/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0335 - accuracy:  
0.9600  
Epoch 7807/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9590  
Epoch 7808/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0339 - accuracy:  
0.9595  
Epoch 7809/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0342 - accuracy:  
0.9612  
Epoch 7810/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0371 - accuracy:  
0.9590  
Epoch 7811/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy:  
0.9596  
Epoch 7812/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0351 - accuracy:  
0.9606  
Epoch 7813/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0351 - accuracy:  
0.9601  
Epoch 7814/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy:  
0.9606  
Epoch 7815/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0347 - accuracy:  
0.9598  
Epoch 7816/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy:  
0.9589  
Epoch 7817/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0340 - accuracy:  
0.9593  
Epoch 7818/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9607  
Epoch 7819/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy:  
0.9588  
Epoch 7820/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9600  
Epoch 7821/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy:  
0.9601  
Epoch 7822/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
0.9603  
Epoch 7823/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9590  
Epoch 7824/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9597  
Epoch 7825/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0335 - accuracy:  
0.9596  
Epoch 7826/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9585  
Epoch 7827/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9592  
Epoch 7828/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9597  
Epoch 7829/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9597  
Epoch 7830/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9603  
Epoch 7831/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9595  
Epoch 7832/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9597  
Epoch 7833/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0334 - accuracy:  
0.9593  
Epoch 7834/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9603  
Epoch 7835/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9605  
Epoch 7836/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9605  
Epoch 7837/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0334 - accuracy:  
0.9597  
Epoch 7838/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0341 - accuracy:  
0.9606  
Epoch 7839/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9602  
Epoch 7840/100000

2/2 [=====] - 0s 119ms/step - loss: 0.0335 - accuracy:  
0.9593  
Epoch 7841/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0330 - accuracy:  
0.9599  
Epoch 7842/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0332 - accuracy:  
0.9594  
Epoch 7843/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0335 - accuracy:  
0.9601  
Epoch 7844/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0329 - accuracy:  
0.9597  
Epoch 7845/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0330 - accuracy:  
0.9601  
Epoch 7846/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0332 - accuracy:  
0.9603  
Epoch 7847/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9607  
Epoch 7848/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0331 - accuracy:  
0.9590  
Epoch 7849/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy:  
0.9600  
Epoch 7850/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9596  
Epoch 7851/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9597  
Epoch 7852/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9591  
Epoch 7853/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9591  
Epoch 7854/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9596  
Epoch 7855/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0334 - accuracy:  
0.9603  
Epoch 7856/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy:  
0.9604  
Epoch 7857/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9599  
Epoch 7858/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9599  
Epoch 7859/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9601  
Epoch 7860/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9596  
Epoch 7861/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0351 - accuracy:  
0.9609  
Epoch 7862/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0332 - accuracy:  
0.9596  
Epoch 7863/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy:  
0.9598  
Epoch 7864/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0340 - accuracy:  
0.9600  
Epoch 7865/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9592  
Epoch 7866/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0333 - accuracy:  
0.9601  
Epoch 7867/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy:  
0.9592  
Epoch 7868/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9596  
Epoch 7869/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9595  
Epoch 7870/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9593  
Epoch 7871/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9596  
Epoch 7872/100000



2/2 [=====] - 0s 116ms/step - loss: 0.0333 - accuracy:  
0.9597  
Epoch 7873/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0334 - accuracy:  
0.9590  
Epoch 7874/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9600  
Epoch 7875/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9598  
Epoch 7876/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9599  
Epoch 7877/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0336 - accuracy:  
0.9598  
Epoch 7878/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0334 - accuracy:  
0.9589  
Epoch 7879/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0334 - accuracy:  
0.9597  
Epoch 7880/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9589  
Epoch 7881/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
0.9602  
Epoch 7882/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9589  
Epoch 7883/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0331 - accuracy:  
0.9598  
Epoch 7884/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9602  
Epoch 7885/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9600  
Epoch 7886/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9599  
Epoch 7887/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy:  
0.9598  
Epoch 7888/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy:  
0.9597  
Epoch 7889/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0337 - accuracy:  
0.9601  
Epoch 7890/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9598  
Epoch 7891/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9608  
Epoch 7892/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy:  
0.9597  
Epoch 7893/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9594  
Epoch 7894/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy:  
0.9599  
Epoch 7895/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9591  
Epoch 7896/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
0.9610  
Epoch 7897/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9591  
Epoch 7898/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9596  
Epoch 7899/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9597  
Epoch 7900/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0329 - accuracy:  
0.9590  
Epoch 7901/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9597  
Epoch 7902/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0334 - accuracy:  
0.9597  
Epoch 7903/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0335 - accuracy:  
0.9598  
Epoch 7904/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0333 - accuracy: 0.9596  
Epoch 7905/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0332 - accuracy: 0.9594  
Epoch 7906/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy: 0.9602  
Epoch 7907/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy: 0.9596  
Epoch 7908/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy: 0.9593  
Epoch 7909/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy: 0.9600  
Epoch 7910/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0335 - accuracy: 0.9593  
Epoch 7911/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy: 0.9597  
Epoch 7912/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy: 0.9590  
Epoch 7913/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0334 - accuracy: 0.9597  
Epoch 7914/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0340 - accuracy: 0.9600  
Epoch 7915/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy: 0.9598  
Epoch 7916/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0327 - accuracy: 0.9585  
Epoch 7917/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy: 0.9600  
Epoch 7918/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0332 - accuracy: 0.9599  
Epoch 7919/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0340 - accuracy: 0.9599  
Epoch 7920/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy:  
0.9596  
Epoch 7921/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy:  
0.9601  
Epoch 7922/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0341 - accuracy:  
0.9591  
Epoch 7923/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0335 - accuracy:  
0.9599  
Epoch 7924/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9590  
Epoch 7925/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9598  
Epoch 7926/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0336 - accuracy:  
0.9598  
Epoch 7927/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy:  
0.9588  
Epoch 7928/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0375 - accuracy:  
0.9594  
Epoch 7929/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0355 - accuracy:  
0.9606  
Epoch 7930/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0364 - accuracy:  
0.9590  
Epoch 7931/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0372 - accuracy:  
0.9595  
Epoch 7932/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0373 - accuracy:  
0.9592  
Epoch 7933/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0385 - accuracy:  
0.9598  
Epoch 7934/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0363 - accuracy:  
0.9595  
Epoch 7935/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy:  
0.9599  
Epoch 7936/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0343 - accuracy:  
0.9599  
Epoch 7937/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0351 - accuracy:  
0.9599  
Epoch 7938/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0354 - accuracy:  
0.9595  
Epoch 7939/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy:  
0.9593  
Epoch 7940/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0342 - accuracy:  
0.9586  
Epoch 7941/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9596  
Epoch 7942/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9603  
Epoch 7943/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0345 - accuracy:  
0.9591  
Epoch 7944/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0341 - accuracy:  
0.9590  
Epoch 7945/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9599  
Epoch 7946/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9590  
Epoch 7947/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9602  
Epoch 7948/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9602  
Epoch 7949/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9604  
Epoch 7950/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9596  
Epoch 7951/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9604  
Epoch 7952/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9597  
Epoch 7953/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9584  
Epoch 7954/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9603  
Epoch 7955/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0328 - accuracy:  
0.9593  
Epoch 7956/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0330 - accuracy:  
0.9596  
Epoch 7957/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9598  
Epoch 7958/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0331 - accuracy:  
0.9589  
Epoch 7959/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0329 - accuracy:  
0.9599  
Epoch 7960/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9602  
Epoch 7961/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9603  
Epoch 7962/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9594  
Epoch 7963/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9601  
Epoch 7964/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0337 - accuracy:  
0.9597  
Epoch 7965/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0338 - accuracy:  
0.9597  
Epoch 7966/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9593  
Epoch 7967/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy:  
0.9593  
Epoch 7968/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0339 - accuracy:  
0.9596  
Epoch 7969/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9594  
Epoch 7970/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0357 - accuracy:  
0.9596  
Epoch 7971/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0351 - accuracy:  
0.9603  
Epoch 7972/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9603  
Epoch 7973/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9596  
Epoch 7974/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9595  
Epoch 7975/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0350 - accuracy:  
0.9593  
Epoch 7976/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9594  
Epoch 7977/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9593  
Epoch 7978/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9605  
Epoch 7979/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy:  
0.9598  
Epoch 7980/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9600  
Epoch 7981/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0330 - accuracy:  
0.9595  
Epoch 7982/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9595  
Epoch 7983/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy:  
0.9600  
Epoch 7984/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy: 0.9592  
Epoch 7985/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy: 0.9594  
Epoch 7986/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy: 0.9596  
Epoch 7987/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy: 0.9604  
Epoch 7988/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0330 - accuracy: 0.9594  
Epoch 7989/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy: 0.9586  
Epoch 7990/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy: 0.9602  
Epoch 7991/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy: 0.9604  
Epoch 7992/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy: 0.9595  
Epoch 7993/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0328 - accuracy: 0.9601  
Epoch 7994/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0329 - accuracy: 0.9594  
Epoch 7995/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy: 0.9590  
Epoch 7996/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy: 0.9597  
Epoch 7997/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy: 0.9593  
Epoch 7998/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy: 0.9594  
Epoch 7999/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy: 0.9589  
Epoch 8000/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9588  
Epoch 8001/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9600  
Epoch 8002/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0330 - accuracy:  
0.9591  
Epoch 8003/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9601  
Epoch 8004/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9608  
Epoch 8005/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0327 - accuracy:  
0.9591  
Epoch 8006/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9593  
Epoch 8007/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9592  
Epoch 8008/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9597  
Epoch 8009/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9599  
Epoch 8010/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9586  
Epoch 8011/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0328 - accuracy:  
0.9592  
Epoch 8012/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9590  
Epoch 8013/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0332 - accuracy:  
0.9597  
Epoch 8014/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0330 - accuracy:  
0.9596  
Epoch 8015/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9602  
Epoch 8016/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy: 0.9591  
Epoch 8017/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy: 0.9597  
Epoch 8018/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0333 - accuracy: 0.9595  
Epoch 8019/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy: 0.9598  
Epoch 8020/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy: 0.9600  
Epoch 8021/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy: 0.9599  
Epoch 8022/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy: 0.9607  
Epoch 8023/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy: 0.9598  
Epoch 8024/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy: 0.9590  
Epoch 8025/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy: 0.9593  
Epoch 8026/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy: 0.9602  
Epoch 8027/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy: 0.9598  
Epoch 8028/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy: 0.9585  
Epoch 8029/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy: 0.9595  
Epoch 8030/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy: 0.9604  
Epoch 8031/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy: 0.9596  
Epoch 8032/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9594  
Epoch 8033/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9600  
Epoch 8034/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9602  
Epoch 8035/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9597  
Epoch 8036/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9593  
Epoch 8037/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9594  
Epoch 8038/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9593  
Epoch 8039/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0332 - accuracy:  
0.9601  
Epoch 8040/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0330 - accuracy:  
0.9593  
Epoch 8041/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9597  
Epoch 8042/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy:  
0.9594  
Epoch 8043/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0330 - accuracy:  
0.9601  
Epoch 8044/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy:  
0.9602  
Epoch 8045/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
0.9599  
Epoch 8046/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9602  
Epoch 8047/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0354 - accuracy:  
0.9592  
Epoch 8048/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0356 - accuracy:  
0.9602  
Epoch 8049/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy:  
0.9597  
Epoch 8050/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy:  
0.9592  
Epoch 8051/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0343 - accuracy:  
0.9591  
Epoch 8052/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0356 - accuracy:  
0.9597  
Epoch 8053/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0353 - accuracy:  
0.9595  
Epoch 8054/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9599  
Epoch 8055/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0341 - accuracy:  
0.9596  
Epoch 8056/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy:  
0.9604  
Epoch 8057/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
0.9596  
Epoch 8058/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9591  
Epoch 8059/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
0.9599  
Epoch 8060/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0341 - accuracy:  
0.9588  
Epoch 8061/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0351 - accuracy:  
0.9601  
Epoch 8062/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9585  
Epoch 8063/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0330 - accuracy:  
0.9588  
Epoch 8064/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0333 - accuracy:  
0.9594  
Epoch 8065/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0337 - accuracy:  
0.9588  
Epoch 8066/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9597  
Epoch 8067/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0334 - accuracy:  
0.9602  
Epoch 8068/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0331 - accuracy:  
0.9590  
Epoch 8069/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0339 - accuracy:  
0.9603  
Epoch 8070/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9590  
Epoch 8071/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9608  
Epoch 8072/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9587  
Epoch 8073/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9601  
Epoch 8074/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9603  
Epoch 8075/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9601  
Epoch 8076/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9601  
Epoch 8077/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9590  
Epoch 8078/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9599  
Epoch 8079/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0335 - accuracy:  
0.9597  
Epoch 8080/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy: 0.9598  
Epoch 8081/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy: 0.9597  
Epoch 8082/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy: 0.9594  
Epoch 8083/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0328 - accuracy: 0.9598  
Epoch 8084/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy: 0.9597  
Epoch 8085/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy: 0.9592  
Epoch 8086/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0329 - accuracy: 0.9594  
Epoch 8087/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy: 0.9610  
Epoch 8088/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy: 0.9598  
Epoch 8089/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy: 0.9592  
Epoch 8090/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy: 0.9600  
Epoch 8091/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy: 0.9605  
Epoch 8092/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy: 0.9595  
Epoch 8093/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0334 - accuracy: 0.9603  
Epoch 8094/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy: 0.9599  
Epoch 8095/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy: 0.9598  
Epoch 8096/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0329 - accuracy:  
0.9598  
Epoch 8097/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9588  
Epoch 8098/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0334 - accuracy:  
0.9603  
Epoch 8099/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9590  
Epoch 8100/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9592  
Epoch 8101/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9601  
Epoch 8102/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9599  
Epoch 8103/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0333 - accuracy:  
0.9605  
Epoch 8104/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9598  
Epoch 8105/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9599  
Epoch 8106/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9598  
Epoch 8107/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9590  
Epoch 8108/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9592  
Epoch 8109/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9599  
Epoch 8110/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9603  
Epoch 8111/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0337 - accuracy:  
0.9596  
Epoch 8112/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0334 - accuracy:  
0.9595  
Epoch 8113/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0335 - accuracy:  
0.9600  
Epoch 8114/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy:  
0.9611  
Epoch 8115/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0343 - accuracy:  
0.9598  
Epoch 8116/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0355 - accuracy:  
0.9595  
Epoch 8117/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy:  
0.9600  
Epoch 8118/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0355 - accuracy:  
0.9597  
Epoch 8119/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0354 - accuracy:  
0.9590  
Epoch 8120/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0348 - accuracy:  
0.9600  
Epoch 8121/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy:  
0.9592  
Epoch 8122/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9596  
Epoch 8123/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9604  
Epoch 8124/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0337 - accuracy:  
0.9603  
Epoch 8125/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0329 - accuracy:  
0.9603  
Epoch 8126/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9589  
Epoch 8127/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9597  
Epoch 8128/100000



2/2 [=====] - 0s 116ms/step - loss: 0.0333 - accuracy: 0.9597  
 Epoch 8129/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0328 - accuracy: 0.9596  
 Epoch 8130/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy: 0.9589  
 Epoch 8131/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0330 - accuracy: 0.9604  
 Epoch 8132/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy: 0.9601  
 Epoch 8133/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy: 0.9602  
 Epoch 8134/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0331 - accuracy: 0.9596  
 Epoch 8135/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy: 0.9593  
 Epoch 8136/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy: 0.9589  
 Epoch 8137/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy: 0.9596  
 Epoch 8138/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy: 0.9598  
 Epoch 8139/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy: 0.9597  
 Epoch 8140/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy: 0.9593  
 Epoch 8141/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy: 0.9602  
 Epoch 8142/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy: 0.9594  
 Epoch 8143/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy: 0.9597  
 Epoch 8144/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9602  
Epoch 8145/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy:  
0.9603  
Epoch 8146/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0343 - accuracy:  
0.9596  
Epoch 8147/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9587  
Epoch 8148/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9603  
Epoch 8149/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9592  
Epoch 8150/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9604  
Epoch 8151/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9602  
Epoch 8152/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0334 - accuracy:  
0.9593  
Epoch 8153/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9594  
Epoch 8154/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9598  
Epoch 8155/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9590  
Epoch 8156/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0327 - accuracy:  
0.9589  
Epoch 8157/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0328 - accuracy:  
0.9598  
Epoch 8158/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0324 - accuracy:  
0.9601  
Epoch 8159/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9590  
Epoch 8160/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9593  
Epoch 8161/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9591  
Epoch 8162/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9590  
Epoch 8163/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9592  
Epoch 8164/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9600  
Epoch 8165/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9592  
Epoch 8166/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0342 - accuracy:  
0.9593  
Epoch 8167/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0330 - accuracy:  
0.9586  
Epoch 8168/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9596  
Epoch 8169/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0335 - accuracy:  
0.9592  
Epoch 8170/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9594  
Epoch 8171/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9604  
Epoch 8172/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9597  
Epoch 8173/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy:  
0.9594  
Epoch 8174/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9588  
Epoch 8175/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9594  
Epoch 8176/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9596  
Epoch 8177/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9592  
Epoch 8178/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9594  
Epoch 8179/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9606  
Epoch 8180/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9597  
Epoch 8181/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0337 - accuracy:  
0.9592  
Epoch 8182/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0361 - accuracy:  
0.9590  
Epoch 8183/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9594  
Epoch 8184/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy:  
0.9596  
Epoch 8185/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0362 - accuracy:  
0.9597  
Epoch 8186/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0352 - accuracy:  
0.9601  
Epoch 8187/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0342 - accuracy:  
0.9591  
Epoch 8188/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0334 - accuracy:  
0.9593  
Epoch 8189/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0340 - accuracy:  
0.9602  
Epoch 8190/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0337 - accuracy:  
0.9593  
Epoch 8191/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9595  
Epoch 8192/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0341 - accuracy: 0.9591  
Epoch 8193/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0330 - accuracy: 0.9594  
Epoch 8194/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy: 0.9596  
Epoch 8195/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy: 0.9594  
Epoch 8196/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0330 - accuracy: 0.9594  
Epoch 8197/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy: 0.9599  
Epoch 8198/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy: 0.9596  
Epoch 8199/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy: 0.9594  
Epoch 8200/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy: 0.9596  
Epoch 8201/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy: 0.9611  
Epoch 8202/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0334 - accuracy: 0.9593  
Epoch 8203/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0330 - accuracy: 0.9596  
Epoch 8204/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy: 0.9601  
Epoch 8205/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0324 - accuracy: 0.9593  
Epoch 8206/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0330 - accuracy: 0.9604  
Epoch 8207/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy: 0.9600  
Epoch 8208/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9603  
Epoch 8209/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9601  
Epoch 8210/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9597  
Epoch 8211/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0329 - accuracy:  
0.9602  
Epoch 8212/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy:  
0.9601  
Epoch 8213/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0328 - accuracy:  
0.9592  
Epoch 8214/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9600  
Epoch 8215/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9595  
Epoch 8216/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9596  
Epoch 8217/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9590  
Epoch 8218/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9593  
Epoch 8219/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9597  
Epoch 8220/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9589  
Epoch 8221/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0333 - accuracy:  
0.9595  
Epoch 8222/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9595  
Epoch 8223/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9598  
Epoch 8224/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0350 - accuracy:  
0.9606  
Epoch 8225/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0349 - accuracy:  
0.9604  
Epoch 8226/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9598  
Epoch 8227/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy:  
0.9594  
Epoch 8228/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0339 - accuracy:  
0.9599  
Epoch 8229/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9599  
Epoch 8230/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9589  
Epoch 8231/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9600  
Epoch 8232/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9592  
Epoch 8233/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9602  
Epoch 8234/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9607  
Epoch 8235/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9596  
Epoch 8236/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0334 - accuracy:  
0.9605  
Epoch 8237/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy:  
0.9596  
Epoch 8238/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9600  
Epoch 8239/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0335 - accuracy:  
0.9607  
Epoch 8240/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9593  
Epoch 8241/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0331 - accuracy:  
0.9594  
Epoch 8242/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0325 - accuracy:  
0.9591  
Epoch 8243/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9604  
Epoch 8244/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9594  
Epoch 8245/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0330 - accuracy:  
0.9589  
Epoch 8246/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9602  
Epoch 8247/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9595  
Epoch 8248/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9601  
Epoch 8249/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy:  
0.9586  
Epoch 8250/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9603  
Epoch 8251/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9592  
Epoch 8252/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9597  
Epoch 8253/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9594  
Epoch 8254/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9592  
Epoch 8255/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9602  
Epoch 8256/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9593  
Epoch 8257/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9598  
Epoch 8258/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9593  
Epoch 8259/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9599  
Epoch 8260/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9595  
Epoch 8261/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9595  
Epoch 8262/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9596  
Epoch 8263/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0333 - accuracy:  
0.9604  
Epoch 8264/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9600  
Epoch 8265/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9598  
Epoch 8266/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy:  
0.9595  
Epoch 8267/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0330 - accuracy:  
0.9593  
Epoch 8268/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9601  
Epoch 8269/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9593  
Epoch 8270/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0328 - accuracy:  
0.9594  
Epoch 8271/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0339 - accuracy:  
0.9601  
Epoch 8272/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0329 - accuracy:  
0.9593  
Epoch 8273/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0342 - accuracy:  
0.9600  
Epoch 8274/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0334 - accuracy:  
0.9600  
Epoch 8275/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9593  
Epoch 8276/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy:  
0.9592  
Epoch 8277/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9609  
Epoch 8278/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0328 - accuracy:  
0.9603  
Epoch 8279/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0330 - accuracy:  
0.9602  
Epoch 8280/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0332 - accuracy:  
0.9601  
Epoch 8281/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9598  
Epoch 8282/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9591  
Epoch 8283/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9600  
Epoch 8284/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9596  
Epoch 8285/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0327 - accuracy:  
0.9593  
Epoch 8286/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9593  
Epoch 8287/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9589  
Epoch 8288/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9604  
Epoch 8289/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0325 - accuracy:  
0.9594  
Epoch 8290/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9590  
Epoch 8291/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9596  
Epoch 8292/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9600  
Epoch 8293/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9594  
Epoch 8294/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9592  
Epoch 8295/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9591  
Epoch 8296/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0332 - accuracy:  
0.9601  
Epoch 8297/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0334 - accuracy:  
0.9600  
Epoch 8298/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9592  
Epoch 8299/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9597  
Epoch 8300/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9588  
Epoch 8301/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9596  
Epoch 8302/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9595  
Epoch 8303/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9594  
Epoch 8304/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0333 - accuracy:  
0.9594  
Epoch 8305/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9602  
Epoch 8306/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9596  
Epoch 8307/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9596  
Epoch 8308/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9604  
Epoch 8309/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9599  
Epoch 8310/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9598  
Epoch 8311/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9595  
Epoch 8312/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9600  
Epoch 8313/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9591  
Epoch 8314/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0347 - accuracy:  
0.9589  
Epoch 8315/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy:  
0.9597  
Epoch 8316/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy:  
0.9586  
Epoch 8317/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy:  
0.9594  
Epoch 8318/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0334 - accuracy:  
0.9595  
Epoch 8319/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy:  
0.9604  
Epoch 8320/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy:  
0.9605  
Epoch 8321/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0340 - accuracy:  
0.9595  
Epoch 8322/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0342 - accuracy:  
0.9597  
Epoch 8323/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0338 - accuracy:  
0.9592  
Epoch 8324/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0334 - accuracy:  
0.9595  
Epoch 8325/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0345 - accuracy:  
0.9602  
Epoch 8326/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0339 - accuracy:  
0.9599  
Epoch 8327/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0332 - accuracy:  
0.9601  
Epoch 8328/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9601  
Epoch 8329/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9603  
Epoch 8330/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy:  
0.9593  
Epoch 8331/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9593  
Epoch 8332/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0329 - accuracy:  
0.9594  
Epoch 8333/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9597  
Epoch 8334/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9595  
Epoch 8335/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9604  
Epoch 8336/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9597  
Epoch 8337/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9604  
Epoch 8338/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9596  
Epoch 8339/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9593  
Epoch 8340/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9595  
Epoch 8341/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9606  
Epoch 8342/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9597  
Epoch 8343/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9591  
Epoch 8344/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9592  
Epoch 8345/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy:  
0.9589  
Epoch 8346/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9595  
Epoch 8347/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9591  
Epoch 8348/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9602  
Epoch 8349/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9596  
Epoch 8350/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9604  
Epoch 8351/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0329 - accuracy:  
0.9593  
Epoch 8352/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy: 0.9589  
Epoch 8353/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy: 0.9593  
Epoch 8354/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy: 0.9600  
Epoch 8355/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy: 0.9592  
Epoch 8356/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy: 0.9593  
Epoch 8357/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy: 0.9593  
Epoch 8358/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy: 0.9594  
Epoch 8359/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy: 0.9600  
Epoch 8360/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy: 0.9597  
Epoch 8361/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0343 - accuracy: 0.9605  
Epoch 8362/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0365 - accuracy: 0.9596  
Epoch 8363/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0371 - accuracy: 0.9602  
Epoch 8364/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0357 - accuracy: 0.9595  
Epoch 8365/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0343 - accuracy: 0.9597  
Epoch 8366/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy: 0.9603  
Epoch 8367/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0355 - accuracy: 0.9601  
Epoch 8368/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0353 - accuracy:  
0.9599  
Epoch 8369/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0353 - accuracy:  
0.9594  
Epoch 8370/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy:  
0.9594  
Epoch 8371/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9596  
Epoch 8372/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9601  
Epoch 8373/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy:  
0.9595  
Epoch 8374/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9602  
Epoch 8375/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9593  
Epoch 8376/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0330 - accuracy:  
0.9588  
Epoch 8377/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9600  
Epoch 8378/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9601  
Epoch 8379/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9591  
Epoch 8380/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9583  
Epoch 8381/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9593  
Epoch 8382/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9598  
Epoch 8383/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy:  
0.9588  
Epoch 8384/100000



2/2 [=====] - 0s 114ms/step - loss: 0.0330 - accuracy:  
0.9581  
Epoch 8385/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9595  
Epoch 8386/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9604  
Epoch 8387/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9594  
Epoch 8388/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9593  
Epoch 8389/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0333 - accuracy:  
0.9601  
Epoch 8390/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0330 - accuracy:  
0.9600  
Epoch 8391/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9597  
Epoch 8392/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9593  
Epoch 8393/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9599  
Epoch 8394/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0332 - accuracy:  
0.9595  
Epoch 8395/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9600  
Epoch 8396/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9592  
Epoch 8397/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9593  
Epoch 8398/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9595  
Epoch 8399/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy:  
0.9599  
Epoch 8400/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy: 0.9603  
Epoch 8401/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy: 0.9590  
Epoch 8402/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy: 0.9587  
Epoch 8403/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0322 - accuracy: 0.9598  
Epoch 8404/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy: 0.9599  
Epoch 8405/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy: 0.9588  
Epoch 8406/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy: 0.9593  
Epoch 8407/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy: 0.9604  
Epoch 8408/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy: 0.9596  
Epoch 8409/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy: 0.9593  
Epoch 8410/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy: 0.9595  
Epoch 8411/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy: 0.9597  
Epoch 8412/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy: 0.9606  
Epoch 8413/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0330 - accuracy: 0.9599  
Epoch 8414/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0326 - accuracy: 0.9595  
Epoch 8415/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy: 0.9597  
Epoch 8416/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy:  
0.9602  
Epoch 8417/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9607  
Epoch 8418/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy:  
0.9587  
Epoch 8419/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9600  
Epoch 8420/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9593  
Epoch 8421/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9594  
Epoch 8422/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0331 - accuracy:  
0.9598  
Epoch 8423/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9600  
Epoch 8424/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9598  
Epoch 8425/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9606  
Epoch 8426/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9595  
Epoch 8427/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9599  
Epoch 8428/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9588  
Epoch 8429/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9595  
Epoch 8430/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9600  
Epoch 8431/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9590  
Epoch 8432/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9595  
Epoch 8433/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0331 - accuracy:  
0.9589  
Epoch 8434/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0329 - accuracy:  
0.9602  
Epoch 8435/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9597  
Epoch 8436/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9598  
Epoch 8437/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0330 - accuracy:  
0.9605  
Epoch 8438/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9592  
Epoch 8439/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0335 - accuracy:  
0.9590  
Epoch 8440/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9591  
Epoch 8441/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0333 - accuracy:  
0.9602  
Epoch 8442/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9600  
Epoch 8443/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9588  
Epoch 8444/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9597  
Epoch 8445/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9597  
Epoch 8446/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0329 - accuracy:  
0.9601  
Epoch 8447/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0333 - accuracy:  
0.9592  
Epoch 8448/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9594  
Epoch 8449/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9596  
Epoch 8450/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9590  
Epoch 8451/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9600  
Epoch 8452/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9599  
Epoch 8453/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9593  
Epoch 8454/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9596  
Epoch 8455/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9599  
Epoch 8456/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0330 - accuracy:  
0.9600  
Epoch 8457/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9591  
Epoch 8458/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9589  
Epoch 8459/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9598  
Epoch 8460/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0341 - accuracy:  
0.9601  
Epoch 8461/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9595  
Epoch 8462/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0344 - accuracy:  
0.9595  
Epoch 8463/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9594  
Epoch 8464/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0342 - accuracy: 0.9595  
Epoch 8465/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0341 - accuracy: 0.9591  
Epoch 8466/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy: 0.9596  
Epoch 8467/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy: 0.9600  
Epoch 8468/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy: 0.9585  
Epoch 8469/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy: 0.9596  
Epoch 8470/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0344 - accuracy: 0.9591  
Epoch 8471/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy: 0.9607  
Epoch 8472/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy: 0.9599  
Epoch 8473/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0343 - accuracy: 0.9590  
Epoch 8474/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0371 - accuracy: 0.9605  
Epoch 8475/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0351 - accuracy: 0.9592  
Epoch 8476/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0335 - accuracy: 0.9600  
Epoch 8477/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy: 0.9589  
Epoch 8478/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy: 0.9597  
Epoch 8479/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy: 0.9590  
Epoch 8480/100000

2/2 [=====] - 0s 119ms/step - loss: 0.0330 - accuracy:  
0.9593  
Epoch 8481/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy:  
0.9590  
Epoch 8482/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9602  
Epoch 8483/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9596  
Epoch 8484/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9594  
Epoch 8485/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9599  
Epoch 8486/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9599  
Epoch 8487/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9607  
Epoch 8488/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0334 - accuracy:  
0.9591  
Epoch 8489/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0351 - accuracy:  
0.9603  
Epoch 8490/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9593  
Epoch 8491/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9593  
Epoch 8492/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9610  
Epoch 8493/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9597  
Epoch 8494/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9600  
Epoch 8495/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9604  
Epoch 8496/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy:  
0.9605  
Epoch 8497/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0350 - accuracy:  
0.9597  
Epoch 8498/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9598  
Epoch 8499/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy:  
0.9596  
Epoch 8500/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0355 - accuracy:  
0.9594  
Epoch 8501/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9590  
Epoch 8502/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0337 - accuracy:  
0.9603  
Epoch 8503/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9586  
Epoch 8504/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0334 - accuracy:  
0.9592  
Epoch 8505/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9593  
Epoch 8506/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9595  
Epoch 8507/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9592  
Epoch 8508/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9597  
Epoch 8509/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0333 - accuracy:  
0.9592  
Epoch 8510/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9597  
Epoch 8511/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9601  
Epoch 8512/100000



2/2 [=====] - 0s 114ms/step - loss: 0.0337 - accuracy:  
0.9601  
Epoch 8513/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0337 - accuracy:  
0.9601  
Epoch 8514/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9604  
Epoch 8515/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9598  
Epoch 8516/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9598  
Epoch 8517/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9591  
Epoch 8518/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0328 - accuracy:  
0.9585  
Epoch 8519/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9601  
Epoch 8520/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9603  
Epoch 8521/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9596  
Epoch 8522/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0333 - accuracy:  
0.9602  
Epoch 8523/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0328 - accuracy:  
0.9599  
Epoch 8524/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9599  
Epoch 8525/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9599  
Epoch 8526/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9599  
Epoch 8527/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9594  
Epoch 8528/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy: 0.9607  
Epoch 8529/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy: 0.9596  
Epoch 8530/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy: 0.9601  
Epoch 8531/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy: 0.9605  
Epoch 8532/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy: 0.9593  
Epoch 8533/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0342 - accuracy: 0.9596  
Epoch 8534/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy: 0.9596  
Epoch 8535/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0337 - accuracy: 0.9598  
Epoch 8536/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy: 0.9590  
Epoch 8537/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0331 - accuracy: 0.9600  
Epoch 8538/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0330 - accuracy: 0.9604  
Epoch 8539/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0333 - accuracy: 0.9591  
Epoch 8540/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy: 0.9602  
Epoch 8541/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy: 0.9599  
Epoch 8542/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy: 0.9594  
Epoch 8543/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy: 0.9611  
Epoch 8544/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9594  
Epoch 8545/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy:  
0.9602  
Epoch 8546/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0332 - accuracy:  
0.9590  
Epoch 8547/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9603  
Epoch 8548/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0331 - accuracy:  
0.9589  
Epoch 8549/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9591  
Epoch 8550/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9597  
Epoch 8551/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9599  
Epoch 8552/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9587  
Epoch 8553/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9601  
Epoch 8554/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9592  
Epoch 8555/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9589  
Epoch 8556/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0335 - accuracy:  
0.9598  
Epoch 8557/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9595  
Epoch 8558/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0333 - accuracy:  
0.9592  
Epoch 8559/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0330 - accuracy:  
0.9592  
Epoch 8560/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9591  
Epoch 8561/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9600  
Epoch 8562/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0336 - accuracy:  
0.9599  
Epoch 8563/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0340 - accuracy:  
0.9598  
Epoch 8564/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9596  
Epoch 8565/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9599  
Epoch 8566/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0334 - accuracy:  
0.9598  
Epoch 8567/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9586  
Epoch 8568/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9597  
Epoch 8569/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0331 - accuracy:  
0.9596  
Epoch 8570/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0333 - accuracy:  
0.9592  
Epoch 8571/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9592  
Epoch 8572/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9603  
Epoch 8573/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9587  
Epoch 8574/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9601  
Epoch 8575/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0329 - accuracy:  
0.9602  
Epoch 8576/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9590  
Epoch 8577/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0335 - accuracy:  
0.9605  
Epoch 8578/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
0.9598  
Epoch 8579/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
0.9592  
Epoch 8580/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9601  
Epoch 8581/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
0.9596  
Epoch 8582/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0356 - accuracy:  
0.9589  
Epoch 8583/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0336 - accuracy:  
0.9592  
Epoch 8584/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9602  
Epoch 8585/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9599  
Epoch 8586/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy:  
0.9587  
Epoch 8587/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9599  
Epoch 8588/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9593  
Epoch 8589/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9608  
Epoch 8590/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9594  
Epoch 8591/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9586  
Epoch 8592/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9600  
Epoch 8593/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0334 - accuracy:  
0.9595  
Epoch 8594/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0334 - accuracy:  
0.9605  
Epoch 8595/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9605  
Epoch 8596/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0330 - accuracy:  
0.9595  
Epoch 8597/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9588  
Epoch 8598/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9606  
Epoch 8599/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0339 - accuracy:  
0.9602  
Epoch 8600/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9600  
Epoch 8601/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9594  
Epoch 8602/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0340 - accuracy:  
0.9595  
Epoch 8603/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0354 - accuracy:  
0.9590  
Epoch 8604/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0340 - accuracy:  
0.9605  
Epoch 8605/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0334 - accuracy:  
0.9597  
Epoch 8606/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0339 - accuracy:  
0.9592  
Epoch 8607/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy:  
0.9591  
Epoch 8608/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0333 - accuracy:  
0.9594  
Epoch 8609/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9585  
Epoch 8610/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9595  
Epoch 8611/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9599  
Epoch 8612/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9595  
Epoch 8613/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9610  
Epoch 8614/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9584  
Epoch 8615/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9600  
Epoch 8616/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9603  
Epoch 8617/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9591  
Epoch 8618/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0331 - accuracy:  
0.9589  
Epoch 8619/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9602  
Epoch 8620/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9595  
Epoch 8621/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0330 - accuracy:  
0.9603  
Epoch 8622/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9589  
Epoch 8623/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy:  
0.9592  
Epoch 8624/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy:  
0.9596  
Epoch 8625/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0347 - accuracy:  
0.9601  
Epoch 8626/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0364 - accuracy:  
0.9594  
Epoch 8627/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0354 - accuracy:  
0.9607  
Epoch 8628/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
0.9596  
Epoch 8629/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy:  
0.9588  
Epoch 8630/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy:  
0.9589  
Epoch 8631/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy:  
0.9596  
Epoch 8632/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy:  
0.9602  
Epoch 8633/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy:  
0.9593  
Epoch 8634/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0340 - accuracy:  
0.9596  
Epoch 8635/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9587  
Epoch 8636/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9589  
Epoch 8637/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9599  
Epoch 8638/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9591  
Epoch 8639/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0333 - accuracy:  
0.9597  
Epoch 8640/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy: 0.9596  
Epoch 8641/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0330 - accuracy: 0.9595  
Epoch 8642/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy: 0.9590  
Epoch 8643/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy: 0.9604  
Epoch 8644/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy: 0.9595  
Epoch 8645/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0332 - accuracy: 0.9603  
Epoch 8646/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy: 0.9603  
Epoch 8647/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy: 0.9602  
Epoch 8648/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy: 0.9586  
Epoch 8649/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy: 0.9594  
Epoch 8650/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy: 0.9589  
Epoch 8651/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0330 - accuracy: 0.9596  
Epoch 8652/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy: 0.9603  
Epoch 8653/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy: 0.9600  
Epoch 8654/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy: 0.9597  
Epoch 8655/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0333 - accuracy: 0.9593  
Epoch 8656/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy: 0.9599  
Epoch 8657/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy: 0.9590  
Epoch 8658/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy: 0.9590  
Epoch 8659/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy: 0.9594  
Epoch 8660/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0330 - accuracy: 0.9601  
Epoch 8661/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy: 0.9593  
Epoch 8662/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy: 0.9596  
Epoch 8663/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy: 0.9596  
Epoch 8664/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy: 0.9595  
Epoch 8665/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy: 0.9598  
Epoch 8666/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy: 0.9595  
Epoch 8667/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy: 0.9599  
Epoch 8668/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy: 0.9599  
Epoch 8669/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy: 0.9601  
Epoch 8670/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0330 - accuracy: 0.9595  
Epoch 8671/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy: 0.9597  
Epoch 8672/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0337 - accuracy: 0.9599  
Epoch 8673/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy: 0.9599  
Epoch 8674/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0331 - accuracy: 0.9584  
Epoch 8675/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy: 0.9593  
Epoch 8676/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0344 - accuracy: 0.9603  
Epoch 8677/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy: 0.9608  
Epoch 8678/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy: 0.9594  
Epoch 8679/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy: 0.9614  
Epoch 8680/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0333 - accuracy: 0.9603  
Epoch 8681/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0332 - accuracy: 0.9593  
Epoch 8682/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy: 0.9606  
Epoch 8683/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0336 - accuracy: 0.9592  
Epoch 8684/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy: 0.9598  
Epoch 8685/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy: 0.9603  
Epoch 8686/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0336 - accuracy: 0.9609  
Epoch 8687/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy: 0.9593  
Epoch 8688/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9592  
Epoch 8689/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9604  
Epoch 8690/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0328 - accuracy:  
0.9595  
Epoch 8691/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9598  
Epoch 8692/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9597  
Epoch 8693/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0330 - accuracy:  
0.9600  
Epoch 8694/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0332 - accuracy:  
0.9599  
Epoch 8695/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy:  
0.9593  
Epoch 8696/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0323 - accuracy:  
0.9597  
Epoch 8697/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy:  
0.9603  
Epoch 8698/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9593  
Epoch 8699/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0331 - accuracy:  
0.9599  
Epoch 8700/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9602  
Epoch 8701/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9597  
Epoch 8702/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9589  
Epoch 8703/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy:  
0.9587  
Epoch 8704/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy: 0.9600  
Epoch 8705/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy: 0.9592  
Epoch 8706/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy: 0.9595  
Epoch 8707/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy: 0.9599  
Epoch 8708/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy: 0.9591  
Epoch 8709/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy: 0.9600  
Epoch 8710/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0328 - accuracy: 0.9609  
Epoch 8711/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0328 - accuracy: 0.9596  
Epoch 8712/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy: 0.9591  
Epoch 8713/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0328 - accuracy: 0.9597  
Epoch 8714/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy: 0.9599  
Epoch 8715/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0329 - accuracy: 0.9603  
Epoch 8716/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy: 0.9600  
Epoch 8717/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy: 0.9603  
Epoch 8718/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy: 0.9601  
Epoch 8719/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0330 - accuracy: 0.9597  
Epoch 8720/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy: 0.9597  
Epoch 8721/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0326 - accuracy: 0.9602  
Epoch 8722/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy: 0.9609  
Epoch 8723/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy: 0.9600  
Epoch 8724/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy: 0.9599  
Epoch 8725/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy: 0.9594  
Epoch 8726/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0330 - accuracy: 0.9607  
Epoch 8727/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy: 0.9589  
Epoch 8728/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0330 - accuracy: 0.9584  
Epoch 8729/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy: 0.9598  
Epoch 8730/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0339 - accuracy: 0.9604  
Epoch 8731/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0336 - accuracy: 0.9591  
Epoch 8732/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0352 - accuracy: 0.9608  
Epoch 8733/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0340 - accuracy: 0.9593  
Epoch 8734/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy: 0.9602  
Epoch 8735/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy: 0.9598  
Epoch 8736/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9595  
Epoch 8737/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy:  
0.9599  
Epoch 8738/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0332 - accuracy:  
0.9599  
Epoch 8739/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0338 - accuracy:  
0.9586  
Epoch 8740/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0340 - accuracy:  
0.9601  
Epoch 8741/100000  
2/2 [=====] - 0s 129ms/step - loss: 0.0334 - accuracy:  
0.9595  
Epoch 8742/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0331 - accuracy:  
0.9594  
Epoch 8743/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0330 - accuracy:  
0.9593  
Epoch 8744/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy:  
0.9591  
Epoch 8745/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0328 - accuracy:  
0.9593  
Epoch 8746/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9587  
Epoch 8747/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9590  
Epoch 8748/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy:  
0.9605  
Epoch 8749/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9592  
Epoch 8750/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9592  
Epoch 8751/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0330 - accuracy:  
0.9599  
Epoch 8752/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9602  
Epoch 8753/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9596  
Epoch 8754/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9594  
Epoch 8755/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0336 - accuracy:  
0.9598  
Epoch 8756/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9598  
Epoch 8757/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9605  
Epoch 8758/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0334 - accuracy:  
0.9593  
Epoch 8759/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0329 - accuracy:  
0.9588  
Epoch 8760/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9592  
Epoch 8761/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0338 - accuracy:  
0.9597  
Epoch 8762/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0341 - accuracy:  
0.9595  
Epoch 8763/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0330 - accuracy:  
0.9608  
Epoch 8764/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9599  
Epoch 8765/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9595  
Epoch 8766/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0335 - accuracy:  
0.9603  
Epoch 8767/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0333 - accuracy:  
0.9596  
Epoch 8768/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
0.9598  
Epoch 8769/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0337 - accuracy:  
0.9601  
Epoch 8770/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9598  
Epoch 8771/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9589  
Epoch 8772/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0344 - accuracy:  
0.9589  
Epoch 8773/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9590  
Epoch 8774/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9599  
Epoch 8775/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0335 - accuracy:  
0.9601  
Epoch 8776/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0338 - accuracy:  
0.9603  
Epoch 8777/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9595  
Epoch 8778/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9597  
Epoch 8779/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9598  
Epoch 8780/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9593  
Epoch 8781/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy:  
0.9590  
Epoch 8782/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9602  
Epoch 8783/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0328 - accuracy:  
0.9600  
Epoch 8784/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy:  
0.9595  
Epoch 8785/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9606  
Epoch 8786/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0330 - accuracy:  
0.9601  
Epoch 8787/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9599  
Epoch 8788/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9600  
Epoch 8789/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9602  
Epoch 8790/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9592  
Epoch 8791/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0319 - accuracy:  
0.9593  
Epoch 8792/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9599  
Epoch 8793/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy:  
0.9591  
Epoch 8794/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0324 - accuracy:  
0.9597  
Epoch 8795/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9600  
Epoch 8796/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9595  
Epoch 8797/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0334 - accuracy:  
0.9598  
Epoch 8798/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9591  
Epoch 8799/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy:  
0.9595  
Epoch 8800/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9602  
Epoch 8801/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9594  
Epoch 8802/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9595  
Epoch 8803/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0336 - accuracy:  
0.9600  
Epoch 8804/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy:  
0.9595  
Epoch 8805/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9596  
Epoch 8806/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9590  
Epoch 8807/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0328 - accuracy:  
0.9600  
Epoch 8808/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9583  
Epoch 8809/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9597  
Epoch 8810/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9595  
Epoch 8811/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0333 - accuracy:  
0.9594  
Epoch 8812/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9589  
Epoch 8813/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9596  
Epoch 8814/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9600  
Epoch 8815/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9598  
Epoch 8816/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy: 0.9592  
Epoch 8817/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy: 0.9595  
Epoch 8818/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy: 0.9596  
Epoch 8819/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0331 - accuracy: 0.9607  
Epoch 8820/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy: 0.9591  
Epoch 8821/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy: 0.9589  
Epoch 8822/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy: 0.9587  
Epoch 8823/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy: 0.9596  
Epoch 8824/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy: 0.9590  
Epoch 8825/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy: 0.9592  
Epoch 8826/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0327 - accuracy: 0.9597  
Epoch 8827/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy: 0.9590  
Epoch 8828/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy: 0.9592  
Epoch 8829/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy: 0.9604  
Epoch 8830/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy: 0.9601  
Epoch 8831/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy: 0.9601  
Epoch 8832/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9584  
Epoch 8833/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9601  
Epoch 8834/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0329 - accuracy:  
0.9597  
Epoch 8835/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0329 - accuracy:  
0.9602  
Epoch 8836/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9599  
Epoch 8837/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9595  
Epoch 8838/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9607  
Epoch 8839/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0333 - accuracy:  
0.9606  
Epoch 8840/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9590  
Epoch 8841/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9595  
Epoch 8842/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9588  
Epoch 8843/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9590  
Epoch 8844/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9592  
Epoch 8845/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9598  
Epoch 8846/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0329 - accuracy:  
0.9598  
Epoch 8847/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9593  
Epoch 8848/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9595  
Epoch 8849/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9596  
Epoch 8850/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0327 - accuracy:  
0.9599  
Epoch 8851/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy:  
0.9603  
Epoch 8852/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9599  
Epoch 8853/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9594  
Epoch 8854/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9590  
Epoch 8855/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9597  
Epoch 8856/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9596  
Epoch 8857/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9604  
Epoch 8858/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9600  
Epoch 8859/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9589  
Epoch 8860/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy:  
0.9587  
Epoch 8861/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0334 - accuracy:  
0.9598  
Epoch 8862/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9604  
Epoch 8863/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0336 - accuracy:  
0.9601  
Epoch 8864/100000

2/2 [=====] - 0s 119ms/step - loss: 0.0331 - accuracy:  
0.9586  
Epoch 8865/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9601  
Epoch 8866/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy:  
0.9606  
Epoch 8867/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9598  
Epoch 8868/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9596  
Epoch 8869/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9596  
Epoch 8870/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9590  
Epoch 8871/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9590  
Epoch 8872/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy:  
0.9600  
Epoch 8873/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0334 - accuracy:  
0.9598  
Epoch 8874/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9602  
Epoch 8875/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9593  
Epoch 8876/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9596  
Epoch 8877/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9597  
Epoch 8878/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9597  
Epoch 8879/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9602  
Epoch 8880/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9594  
Epoch 8881/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0326 - accuracy:  
0.9592  
Epoch 8882/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9593  
Epoch 8883/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0334 - accuracy:  
0.9608  
Epoch 8884/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9601  
Epoch 8885/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0322 - accuracy:  
0.9599  
Epoch 8886/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0328 - accuracy:  
0.9590  
Epoch 8887/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9600  
Epoch 8888/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9605  
Epoch 8889/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9602  
Epoch 8890/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9596  
Epoch 8891/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9592  
Epoch 8892/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0324 - accuracy:  
0.9602  
Epoch 8893/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9592  
Epoch 8894/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9598  
Epoch 8895/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9585  
Epoch 8896/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9590  
Epoch 8897/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9606  
Epoch 8898/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy:  
0.9601  
Epoch 8899/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9600  
Epoch 8900/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9604  
Epoch 8901/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9592  
Epoch 8902/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0333 - accuracy:  
0.9603  
Epoch 8903/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9596  
Epoch 8904/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9603  
Epoch 8905/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9599  
Epoch 8906/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9593  
Epoch 8907/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0328 - accuracy:  
0.9610  
Epoch 8908/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9594  
Epoch 8909/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9595  
Epoch 8910/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0355 - accuracy:  
0.9597  
Epoch 8911/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9602  
Epoch 8912/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0356 - accuracy:  
0.9595  
Epoch 8913/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0377 - accuracy:  
0.9599  
Epoch 8914/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy:  
0.9596  
Epoch 8915/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy:  
0.9600  
Epoch 8916/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0339 - accuracy:  
0.9593  
Epoch 8917/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0335 - accuracy:  
0.9598  
Epoch 8918/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0334 - accuracy:  
0.9603  
Epoch 8919/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0330 - accuracy:  
0.9600  
Epoch 8920/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9592  
Epoch 8921/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy:  
0.9593  
Epoch 8922/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0338 - accuracy:  
0.9606  
Epoch 8923/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy:  
0.9604  
Epoch 8924/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0349 - accuracy:  
0.9601  
Epoch 8925/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy:  
0.9600  
Epoch 8926/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0329 - accuracy:  
0.9604  
Epoch 8927/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9599  
Epoch 8928/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9599  
Epoch 8929/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9592  
Epoch 8930/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9604  
Epoch 8931/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9591  
Epoch 8932/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9592  
Epoch 8933/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy:  
0.9596  
Epoch 8934/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy:  
0.9590  
Epoch 8935/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0349 - accuracy:  
0.9593  
Epoch 8936/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9599  
Epoch 8937/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9591  
Epoch 8938/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9599  
Epoch 8939/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0339 - accuracy:  
0.9595  
Epoch 8940/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0333 - accuracy:  
0.9590  
Epoch 8941/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0335 - accuracy:  
0.9600  
Epoch 8942/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy:  
0.9598  
Epoch 8943/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9602  
Epoch 8944/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9589  
Epoch 8945/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0329 - accuracy:  
0.9592  
Epoch 8946/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0335 - accuracy:  
0.9595  
Epoch 8947/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9603  
Epoch 8948/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9602  
Epoch 8949/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9593  
Epoch 8950/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy:  
0.9606  
Epoch 8951/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9608  
Epoch 8952/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy:  
0.9596  
Epoch 8953/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9594  
Epoch 8954/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0329 - accuracy:  
0.9595  
Epoch 8955/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0328 - accuracy:  
0.9595  
Epoch 8956/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9597  
Epoch 8957/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9601  
Epoch 8958/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9593  
Epoch 8959/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9595  
Epoch 8960/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9603  
Epoch 8961/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9593  
Epoch 8962/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9590  
Epoch 8963/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9596  
Epoch 8964/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9588  
Epoch 8965/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9606  
Epoch 8966/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9590  
Epoch 8967/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9598  
Epoch 8968/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0330 - accuracy:  
0.9590  
Epoch 8969/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0329 - accuracy:  
0.9594  
Epoch 8970/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9601  
Epoch 8971/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9588  
Epoch 8972/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9589  
Epoch 8973/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9602  
Epoch 8974/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9604  
Epoch 8975/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9593  
Epoch 8976/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9593  
Epoch 8977/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9598  
Epoch 8978/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9597  
Epoch 8979/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9595  
Epoch 8980/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0334 - accuracy:  
0.9603  
Epoch 8981/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9595  
Epoch 8982/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9591  
Epoch 8983/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9600  
Epoch 8984/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9593  
Epoch 8985/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9595  
Epoch 8986/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9591  
Epoch 8987/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9593  
Epoch 8988/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9600  
Epoch 8989/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0327 - accuracy:  
0.9595  
Epoch 8990/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy:  
0.9588  
Epoch 8991/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9592  
Epoch 8992/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9598  
Epoch 8993/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy:  
0.9604  
Epoch 8994/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9600  
Epoch 8995/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0330 - accuracy:  
0.9601  
Epoch 8996/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9587  
Epoch 8997/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9602  
Epoch 8998/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0328 - accuracy:  
0.9597  
Epoch 8999/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9593  
Epoch 9000/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9597  
Epoch 9001/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9592  
Epoch 9002/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9601  
Epoch 9003/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9589  
Epoch 9004/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy:  
0.9596  
Epoch 9005/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0336 - accuracy:  
0.9600  
Epoch 9006/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0355 - accuracy:  
0.9588  
Epoch 9007/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0340 - accuracy:  
0.9597  
Epoch 9008/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0339 - accuracy:  
0.9597  
Epoch 9009/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0348 - accuracy:  
0.9602  
Epoch 9010/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0340 - accuracy:  
0.9599  
Epoch 9011/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0337 - accuracy:  
0.9596  
Epoch 9012/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9597  
Epoch 9013/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0334 - accuracy:  
0.9594  
Epoch 9014/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9601  
Epoch 9015/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9603  
Epoch 9016/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy:  
0.9601  
Epoch 9017/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9595  
Epoch 9018/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9593  
Epoch 9019/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0339 - accuracy:  
0.9600  
Epoch 9020/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
0.9599  
Epoch 9021/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy:  
0.9603  
Epoch 9022/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy:  
0.9599  
Epoch 9023/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9590  
Epoch 9024/100000



2/2 [=====] - 0s 116ms/step - loss: 0.0339 - accuracy:  
0.9601  
Epoch 9025/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9592  
Epoch 9026/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9594  
Epoch 9027/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9590  
Epoch 9028/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9596  
Epoch 9029/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0345 - accuracy:  
0.9589  
Epoch 9030/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0330 - accuracy:  
0.9595  
Epoch 9031/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0333 - accuracy:  
0.9604  
Epoch 9032/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9599  
Epoch 9033/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9598  
Epoch 9034/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9590  
Epoch 9035/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9599  
Epoch 9036/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0329 - accuracy:  
0.9595  
Epoch 9037/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0327 - accuracy:  
0.9598  
Epoch 9038/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0334 - accuracy:  
0.9594  
Epoch 9039/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9598  
Epoch 9040/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9604  
Epoch 9041/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9594  
Epoch 9042/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9594  
Epoch 9043/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0329 - accuracy:  
0.9593  
Epoch 9044/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9588  
Epoch 9045/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9595  
Epoch 9046/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9596  
Epoch 9047/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9600  
Epoch 9048/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9597  
Epoch 9049/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9592  
Epoch 9050/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9600  
Epoch 9051/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy:  
0.9603  
Epoch 9052/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9598  
Epoch 9053/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9594  
Epoch 9054/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0327 - accuracy:  
0.9600  
Epoch 9055/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0326 - accuracy:  
0.9588  
Epoch 9056/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy: 0.9597  
Epoch 9057/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0326 - accuracy: 0.9596  
Epoch 9058/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0325 - accuracy: 0.9588  
Epoch 9059/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0326 - accuracy: 0.9600  
Epoch 9060/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy: 0.9594  
Epoch 9061/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy: 0.9609  
Epoch 9062/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy: 0.9592  
Epoch 9063/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0325 - accuracy: 0.9587  
Epoch 9064/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy: 0.9601  
Epoch 9065/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy: 0.9599  
Epoch 9066/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy: 0.9602  
Epoch 9067/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy: 0.9599  
Epoch 9068/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy: 0.9592  
Epoch 9069/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy: 0.9597  
Epoch 9070/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy: 0.9589  
Epoch 9071/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy: 0.9595  
Epoch 9072/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9599  
Epoch 9073/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9590  
Epoch 9074/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9595  
Epoch 9075/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy:  
0.9592  
Epoch 9076/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9608  
Epoch 9077/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0356 - accuracy:  
0.9594  
Epoch 9078/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0377 - accuracy:  
0.9603  
Epoch 9079/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0352 - accuracy:  
0.9592  
Epoch 9080/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9592  
Epoch 9081/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0333 - accuracy:  
0.9598  
Epoch 9082/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0336 - accuracy:  
0.9602  
Epoch 9083/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9596  
Epoch 9084/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9592  
Epoch 9085/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9588  
Epoch 9086/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0329 - accuracy:  
0.9591  
Epoch 9087/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9600  
Epoch 9088/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0329 - accuracy:  
0.9590  
Epoch 9089/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0333 - accuracy:  
0.9598  
Epoch 9090/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9601  
Epoch 9091/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9596  
Epoch 9092/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0334 - accuracy:  
0.9599  
Epoch 9093/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9599  
Epoch 9094/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9598  
Epoch 9095/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9592  
Epoch 9096/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9595  
Epoch 9097/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9593  
Epoch 9098/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9598  
Epoch 9099/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9594  
Epoch 9100/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9603  
Epoch 9101/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9594  
Epoch 9102/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9601  
Epoch 9103/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9599  
Epoch 9104/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9598  
Epoch 9105/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0334 - accuracy:  
0.9595  
Epoch 9106/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9594  
Epoch 9107/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9595  
Epoch 9108/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9607  
Epoch 9109/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0325 - accuracy:  
0.9589  
Epoch 9110/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy:  
0.9603  
Epoch 9111/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0338 - accuracy:  
0.9588  
Epoch 9112/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy:  
0.9590  
Epoch 9113/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0342 - accuracy:  
0.9593  
Epoch 9114/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9600  
Epoch 9115/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9594  
Epoch 9116/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9593  
Epoch 9117/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9594  
Epoch 9118/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0335 - accuracy:  
0.9605  
Epoch 9119/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0330 - accuracy:  
0.9602  
Epoch 9120/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy: 0.9597  
Epoch 9121/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0332 - accuracy: 0.9593  
Epoch 9122/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy: 0.9597  
Epoch 9123/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy: 0.9600  
Epoch 9124/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy: 0.9596  
Epoch 9125/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy: 0.9604  
Epoch 9126/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0328 - accuracy: 0.9598  
Epoch 9127/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy: 0.9602  
Epoch 9128/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0326 - accuracy: 0.9599  
Epoch 9129/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy: 0.9600  
Epoch 9130/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy: 0.9603  
Epoch 9131/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy: 0.9590  
Epoch 9132/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy: 0.9590  
Epoch 9133/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy: 0.9588  
Epoch 9134/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy: 0.9605  
Epoch 9135/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy: 0.9595  
Epoch 9136/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9596  
Epoch 9137/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0334 - accuracy:  
0.9586  
Epoch 9138/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9598  
Epoch 9139/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0333 - accuracy:  
0.9607  
Epoch 9140/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9589  
Epoch 9141/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0330 - accuracy:  
0.9591  
Epoch 9142/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9607  
Epoch 9143/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy:  
0.9604  
Epoch 9144/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0330 - accuracy:  
0.9601  
Epoch 9145/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9595  
Epoch 9146/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0329 - accuracy:  
0.9596  
Epoch 9147/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy:  
0.9588  
Epoch 9148/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0334 - accuracy:  
0.9597  
Epoch 9149/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9597  
Epoch 9150/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0328 - accuracy:  
0.9593  
Epoch 9151/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9599  
Epoch 9152/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9600  
Epoch 9153/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0330 - accuracy:  
0.9590  
Epoch 9154/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9591  
Epoch 9155/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0329 - accuracy:  
0.9597  
Epoch 9156/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0335 - accuracy:  
0.9595  
Epoch 9157/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9603  
Epoch 9158/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9599  
Epoch 9159/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0341 - accuracy:  
0.9597  
Epoch 9160/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0329 - accuracy:  
0.9595  
Epoch 9161/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9603  
Epoch 9162/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9609  
Epoch 9163/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9591  
Epoch 9164/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9608  
Epoch 9165/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9601  
Epoch 9166/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9601  
Epoch 9167/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9609  
Epoch 9168/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9592  
Epoch 9169/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9591  
Epoch 9170/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0330 - accuracy:  
0.9599  
Epoch 9171/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0341 - accuracy:  
0.9607  
Epoch 9172/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9608  
Epoch 9173/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9599  
Epoch 9174/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9602  
Epoch 9175/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9604  
Epoch 9176/100000  
2/2 [=====] - 0s 132ms/step - loss: 0.0340 - accuracy:  
0.9596  
Epoch 9177/100000  
2/2 [=====] - 0s 126ms/step - loss: 0.0330 - accuracy:  
0.9599  
Epoch 9178/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0325 - accuracy:  
0.9594  
Epoch 9179/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0330 - accuracy:  
0.9593  
Epoch 9180/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0327 - accuracy:  
0.9595  
Epoch 9181/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0327 - accuracy:  
0.9590  
Epoch 9182/100000  
2/2 [=====] - 0s 126ms/step - loss: 0.0328 - accuracy:  
0.9590  
Epoch 9183/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy:  
0.9591  
Epoch 9184/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0328 - accuracy:  
0.9601  
Epoch 9185/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0324 - accuracy:  
0.9599  
Epoch 9186/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9602  
Epoch 9187/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0327 - accuracy:  
0.9593  
Epoch 9188/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0328 - accuracy:  
0.9597  
Epoch 9189/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0326 - accuracy:  
0.9599  
Epoch 9190/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9598  
Epoch 9191/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy:  
0.9589  
Epoch 9192/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0328 - accuracy:  
0.9600  
Epoch 9193/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0327 - accuracy:  
0.9588  
Epoch 9194/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0332 - accuracy:  
0.9600  
Epoch 9195/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9598  
Epoch 9196/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0325 - accuracy:  
0.9588  
Epoch 9197/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0335 - accuracy:  
0.9593  
Epoch 9198/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0326 - accuracy:  
0.9589  
Epoch 9199/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9591  
Epoch 9200/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0326 - accuracy: 0.9606  
Epoch 9201/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0333 - accuracy: 0.9599  
Epoch 9202/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy: 0.9600  
Epoch 9203/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0338 - accuracy: 0.9597  
Epoch 9204/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0335 - accuracy: 0.9599  
Epoch 9205/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0352 - accuracy: 0.9594  
Epoch 9206/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy: 0.9598  
Epoch 9207/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy: 0.9592  
Epoch 9208/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy: 0.9595  
Epoch 9209/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy: 0.9595  
Epoch 9210/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy: 0.9600  
Epoch 9211/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy: 0.9600  
Epoch 9212/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0335 - accuracy: 0.9596  
Epoch 9213/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy: 0.9596  
Epoch 9214/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0337 - accuracy: 0.9604  
Epoch 9215/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0337 - accuracy: 0.9595  
Epoch 9216/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9598  
Epoch 9217/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9597  
Epoch 9218/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0339 - accuracy:  
0.9596  
Epoch 9219/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0335 - accuracy:  
0.9592  
Epoch 9220/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy:  
0.9590  
Epoch 9221/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9606  
Epoch 9222/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9600  
Epoch 9223/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy:  
0.9604  
Epoch 9224/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0332 - accuracy:  
0.9600  
Epoch 9225/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9594  
Epoch 9226/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy:  
0.9584  
Epoch 9227/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9594  
Epoch 9228/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9600  
Epoch 9229/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9585  
Epoch 9230/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0325 - accuracy:  
0.9595  
Epoch 9231/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9597  
Epoch 9232/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9601  
Epoch 9233/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy:  
0.9597  
Epoch 9234/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9597  
Epoch 9235/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9595  
Epoch 9236/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0346 - accuracy:  
0.9596  
Epoch 9237/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9587  
Epoch 9238/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9599  
Epoch 9239/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy:  
0.9593  
Epoch 9240/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9588  
Epoch 9241/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9602  
Epoch 9242/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9602  
Epoch 9243/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0329 - accuracy:  
0.9599  
Epoch 9244/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0325 - accuracy:  
0.9598  
Epoch 9245/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9585  
Epoch 9246/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9589  
Epoch 9247/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy:  
0.9597  
Epoch 9248/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9593  
Epoch 9249/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0325 - accuracy:  
0.9602  
Epoch 9250/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0328 - accuracy:  
0.9594  
Epoch 9251/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9591  
Epoch 9252/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9606  
Epoch 9253/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0329 - accuracy:  
0.9605  
Epoch 9254/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9591  
Epoch 9255/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy:  
0.9594  
Epoch 9256/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9598  
Epoch 9257/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9589  
Epoch 9258/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9600  
Epoch 9259/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9600  
Epoch 9260/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0330 - accuracy:  
0.9587  
Epoch 9261/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0336 - accuracy:  
0.9592  
Epoch 9262/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9596  
Epoch 9263/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9593  
Epoch 9264/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0358 - accuracy: 0.9595  
Epoch 9265/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy: 0.9597  
Epoch 9266/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0342 - accuracy: 0.9592  
Epoch 9267/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0346 - accuracy: 0.9598  
Epoch 9268/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy: 0.9605  
Epoch 9269/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy: 0.9603  
Epoch 9270/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy: 0.9605  
Epoch 9271/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0340 - accuracy: 0.9592  
Epoch 9272/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0352 - accuracy: 0.9610  
Epoch 9273/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0344 - accuracy: 0.9597  
Epoch 9274/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy: 0.9595  
Epoch 9275/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy: 0.9599  
Epoch 9276/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy: 0.9594  
Epoch 9277/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0347 - accuracy: 0.9594  
Epoch 9278/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy: 0.9585  
Epoch 9279/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0333 - accuracy: 0.9589  
Epoch 9280/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9596  
Epoch 9281/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0341 - accuracy:  
0.9597  
Epoch 9282/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
0.9602  
Epoch 9283/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9594  
Epoch 9284/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9598  
Epoch 9285/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0335 - accuracy:  
0.9589  
Epoch 9286/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9593  
Epoch 9287/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9598  
Epoch 9288/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0330 - accuracy:  
0.9591  
Epoch 9289/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9592  
Epoch 9290/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0337 - accuracy:  
0.9596  
Epoch 9291/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9598  
Epoch 9292/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9594  
Epoch 9293/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9594  
Epoch 9294/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9587  
Epoch 9295/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9610  
Epoch 9296/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9610  
Epoch 9297/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9599  
Epoch 9298/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9601  
Epoch 9299/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9597  
Epoch 9300/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy:  
0.9600  
Epoch 9301/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0323 - accuracy:  
0.9588  
Epoch 9302/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9590  
Epoch 9303/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9597  
Epoch 9304/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9591  
Epoch 9305/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9601  
Epoch 9306/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9598  
Epoch 9307/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9600  
Epoch 9308/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0328 - accuracy:  
0.9595  
Epoch 9309/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy:  
0.9589  
Epoch 9310/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9600  
Epoch 9311/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9593  
Epoch 9312/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0330 - accuracy:  
0.9602  
Epoch 9313/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9595  
Epoch 9314/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9602  
Epoch 9315/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9594  
Epoch 9316/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9600  
Epoch 9317/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy:  
0.9594  
Epoch 9318/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9600  
Epoch 9319/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0330 - accuracy:  
0.9598  
Epoch 9320/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0335 - accuracy:  
0.9601  
Epoch 9321/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9601  
Epoch 9322/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9589  
Epoch 9323/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9587  
Epoch 9324/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9595  
Epoch 9325/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9592  
Epoch 9326/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9603  
Epoch 9327/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9598  
Epoch 9328/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9597  
Epoch 9329/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9588  
Epoch 9330/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0334 - accuracy:  
0.9598  
Epoch 9331/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9597  
Epoch 9332/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9592  
Epoch 9333/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9600  
Epoch 9334/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9602  
Epoch 9335/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9603  
Epoch 9336/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9594  
Epoch 9337/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy:  
0.9606  
Epoch 9338/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0341 - accuracy:  
0.9597  
Epoch 9339/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9598  
Epoch 9340/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9588  
Epoch 9341/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0337 - accuracy:  
0.9602  
Epoch 9342/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0344 - accuracy:  
0.9599  
Epoch 9343/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9590  
Epoch 9344/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy:  
0.9598  
Epoch 9345/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9594  
Epoch 9346/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9598  
Epoch 9347/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0330 - accuracy:  
0.9599  
Epoch 9348/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0328 - accuracy:  
0.9593  
Epoch 9349/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9597  
Epoch 9350/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9591  
Epoch 9351/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9594  
Epoch 9352/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy:  
0.9587  
Epoch 9353/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy:  
0.9591  
Epoch 9354/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0325 - accuracy:  
0.9588  
Epoch 9355/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9582  
Epoch 9356/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9587  
Epoch 9357/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9591  
Epoch 9358/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9597  
Epoch 9359/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9600  
Epoch 9360/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
 0.9585  
 Epoch 9361/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0329 - accuracy:  
 0.9599  
 Epoch 9362/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
 0.9608  
 Epoch 9363/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
 0.9592  
 Epoch 9364/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
 0.9590  
 Epoch 9365/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
 0.9602  
 Epoch 9366/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
 0.9594  
 Epoch 9367/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
 0.9599  
 Epoch 9368/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
 0.9598  
 Epoch 9369/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
 0.9591  
 Epoch 9370/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
 0.9601  
 Epoch 9371/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy:  
 0.9599  
 Epoch 9372/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
 0.9591  
 Epoch 9373/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
 0.9594  
 Epoch 9374/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
 0.9601  
 Epoch 9375/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
 0.9603  
 Epoch 9376/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9594  
Epoch 9377/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0328 - accuracy:  
0.9600  
Epoch 9378/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9599  
Epoch 9379/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9597  
Epoch 9380/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0326 - accuracy:  
0.9594  
Epoch 9381/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9597  
Epoch 9382/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9607  
Epoch 9383/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9597  
Epoch 9384/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9605  
Epoch 9385/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9597  
Epoch 9386/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9589  
Epoch 9387/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9598  
Epoch 9388/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9600  
Epoch 9389/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9596  
Epoch 9390/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9601  
Epoch 9391/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9597  
Epoch 9392/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9605  
Epoch 9393/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9601  
Epoch 9394/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9601  
Epoch 9395/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9606  
Epoch 9396/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9593  
Epoch 9397/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0327 - accuracy:  
0.9597  
Epoch 9398/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9602  
Epoch 9399/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0327 - accuracy:  
0.9599  
Epoch 9400/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9594  
Epoch 9401/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9602  
Epoch 9402/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9598  
Epoch 9403/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9600  
Epoch 9404/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0329 - accuracy:  
0.9600  
Epoch 9405/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9592  
Epoch 9406/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy:  
0.9590  
Epoch 9407/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9585  
Epoch 9408/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9592  
Epoch 9409/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0335 - accuracy:  
0.9601  
Epoch 9410/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0339 - accuracy:  
0.9592  
Epoch 9411/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9606  
Epoch 9412/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9596  
Epoch 9413/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9591  
Epoch 9414/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9599  
Epoch 9415/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9593  
Epoch 9416/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0326 - accuracy:  
0.9603  
Epoch 9417/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9598  
Epoch 9418/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0327 - accuracy:  
0.9598  
Epoch 9419/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9592  
Epoch 9420/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9601  
Epoch 9421/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy:  
0.9599  
Epoch 9422/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9603  
Epoch 9423/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9600  
Epoch 9424/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy:  
0.9598  
Epoch 9425/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0334 - accuracy:  
0.9599  
Epoch 9426/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0337 - accuracy:  
0.9597  
Epoch 9427/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9596  
Epoch 9428/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9601  
Epoch 9429/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9589  
Epoch 9430/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9591  
Epoch 9431/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9597  
Epoch 9432/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9595  
Epoch 9433/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9602  
Epoch 9434/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy:  
0.9592  
Epoch 9435/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0324 - accuracy:  
0.9597  
Epoch 9436/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9594  
Epoch 9437/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9594  
Epoch 9438/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0329 - accuracy:  
0.9604  
Epoch 9439/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9601  
Epoch 9440/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9595  
Epoch 9441/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0330 - accuracy:  
0.9595  
Epoch 9442/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9593  
Epoch 9443/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9603  
Epoch 9444/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9585  
Epoch 9445/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9597  
Epoch 9446/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0328 - accuracy:  
0.9597  
Epoch 9447/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9589  
Epoch 9448/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy:  
0.9603  
Epoch 9449/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9588  
Epoch 9450/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0324 - accuracy:  
0.9594  
Epoch 9451/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9590  
Epoch 9452/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9595  
Epoch 9453/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9600  
Epoch 9454/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9604  
Epoch 9455/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0326 - accuracy:  
0.9599  
Epoch 9456/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9600  
Epoch 9457/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9598  
Epoch 9458/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9593  
Epoch 9459/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9591  
Epoch 9460/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9594  
Epoch 9461/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9596  
Epoch 9462/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9593  
Epoch 9463/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9593  
Epoch 9464/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9589  
Epoch 9465/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9602  
Epoch 9466/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9593  
Epoch 9467/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9599  
Epoch 9468/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9590  
Epoch 9469/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9590  
Epoch 9470/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9588  
Epoch 9471/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9589  
Epoch 9472/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9596  
Epoch 9473/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9600  
Epoch 9474/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9591  
Epoch 9475/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9598  
Epoch 9476/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9592  
Epoch 9477/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9589  
Epoch 9478/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9598  
Epoch 9479/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9597  
Epoch 9480/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy:  
0.9593  
Epoch 9481/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0324 - accuracy:  
0.9595  
Epoch 9482/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9603  
Epoch 9483/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9600  
Epoch 9484/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9590  
Epoch 9485/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9584  
Epoch 9486/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy:  
0.9605  
Epoch 9487/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9595  
Epoch 9488/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9599  
Epoch 9489/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9601  
Epoch 9490/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9587  
Epoch 9491/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9599  
Epoch 9492/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9601  
Epoch 9493/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9588  
Epoch 9494/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9604  
Epoch 9495/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9589  
Epoch 9496/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9603  
Epoch 9497/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9594  
Epoch 9498/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9601  
Epoch 9499/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9595  
Epoch 9500/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0337 - accuracy:  
0.9609  
Epoch 9501/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0333 - accuracy:  
0.9597  
Epoch 9502/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0333 - accuracy:  
0.9592  
Epoch 9503/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy:  
0.9601  
Epoch 9504/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9592  
Epoch 9505/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0328 - accuracy:  
0.9598  
Epoch 9506/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy:  
0.9602  
Epoch 9507/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0340 - accuracy:  
0.9602  
Epoch 9508/100000  
2/2 [=====] - 0s 132ms/step - loss: 0.0334 - accuracy:  
0.9604  
Epoch 9509/100000  
2/2 [=====] - 0s 135ms/step - loss: 0.0326 - accuracy:  
0.9593  
Epoch 9510/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0328 - accuracy:  
0.9598  
Epoch 9511/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0326 - accuracy:  
0.9596  
Epoch 9512/100000  
2/2 [=====] - 0s 127ms/step - loss: 0.0325 - accuracy:  
0.9593  
Epoch 9513/100000  
2/2 [=====] - 0s 135ms/step - loss: 0.0327 - accuracy:  
0.9604  
Epoch 9514/100000  
2/2 [=====] - 0s 132ms/step - loss: 0.0332 - accuracy:  
0.9602  
Epoch 9515/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0324 - accuracy:  
0.9596  
Epoch 9516/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9600  
Epoch 9517/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0331 - accuracy:  
0.9601  
Epoch 9518/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0337 - accuracy:  
0.9592  
Epoch 9519/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0346 - accuracy:  
0.9607  
Epoch 9520/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy: 0.9582  
Epoch 9521/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0351 - accuracy: 0.9599  
Epoch 9522/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0363 - accuracy: 0.9598  
Epoch 9523/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy: 0.9588  
Epoch 9524/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy: 0.9600  
Epoch 9525/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0342 - accuracy: 0.9606  
Epoch 9526/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy: 0.9595  
Epoch 9527/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0339 - accuracy: 0.9596  
Epoch 9528/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy: 0.9596  
Epoch 9529/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy: 0.9596  
Epoch 9530/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0349 - accuracy: 0.9606  
Epoch 9531/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0336 - accuracy: 0.9598  
Epoch 9532/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0332 - accuracy: 0.9594  
Epoch 9533/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0340 - accuracy: 0.9598  
Epoch 9534/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0328 - accuracy: 0.9594  
Epoch 9535/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0324 - accuracy: 0.9589  
Epoch 9536/100000



2/2 [=====] - 0s 116ms/step - loss: 0.0328 - accuracy:  
0.9607  
Epoch 9537/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0329 - accuracy:  
0.9605  
Epoch 9538/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9592  
Epoch 9539/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9595  
Epoch 9540/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0328 - accuracy:  
0.9598  
Epoch 9541/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9602  
Epoch 9542/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9612  
Epoch 9543/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0329 - accuracy:  
0.9592  
Epoch 9544/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9598  
Epoch 9545/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0342 - accuracy:  
0.9609  
Epoch 9546/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0351 - accuracy:  
0.9591  
Epoch 9547/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0363 - accuracy:  
0.9600  
Epoch 9548/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy:  
0.9601  
Epoch 9549/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy:  
0.9591  
Epoch 9550/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
0.9608  
Epoch 9551/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy:  
0.9587  
Epoch 9552/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0355 - accuracy:  
0.9609  
Epoch 9553/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy:  
0.9602  
Epoch 9554/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0337 - accuracy:  
0.9589  
Epoch 9555/100000  
2/2 [=====] - 0s 126ms/step - loss: 0.0338 - accuracy:  
0.9604  
Epoch 9556/100000  
2/2 [=====] - 0s 128ms/step - loss: 0.0335 - accuracy:  
0.9592  
Epoch 9557/100000  
2/2 [=====] - 0s 129ms/step - loss: 0.0331 - accuracy:  
0.9597  
Epoch 9558/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0329 - accuracy:  
0.9589  
Epoch 9559/100000  
2/2 [=====] - 0s 135ms/step - loss: 0.0328 - accuracy:  
0.9599  
Epoch 9560/100000  
2/2 [=====] - 0s 126ms/step - loss: 0.0329 - accuracy:  
0.9592  
Epoch 9561/100000  
2/2 [=====] - 0s 133ms/step - loss: 0.0327 - accuracy:  
0.9604  
Epoch 9562/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0330 - accuracy:  
0.9598  
Epoch 9563/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0328 - accuracy:  
0.9595  
Epoch 9564/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9597  
Epoch 9565/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9595  
Epoch 9566/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9588  
Epoch 9567/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy:  
0.9590  
Epoch 9568/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0329 - accuracy:  
0.9596  
Epoch 9569/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9593  
Epoch 9570/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9605  
Epoch 9571/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0332 - accuracy:  
0.9599  
Epoch 9572/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0331 - accuracy:  
0.9598  
Epoch 9573/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0334 - accuracy:  
0.9604  
Epoch 9574/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0334 - accuracy:  
0.9589  
Epoch 9575/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9580  
Epoch 9576/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0332 - accuracy:  
0.9589  
Epoch 9577/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9614  
Epoch 9578/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0337 - accuracy:  
0.9587  
Epoch 9579/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9597  
Epoch 9580/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0330 - accuracy:  
0.9601  
Epoch 9581/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9604  
Epoch 9582/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0327 - accuracy:  
0.9600  
Epoch 9583/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9591  
Epoch 9584/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9592  
Epoch 9585/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0328 - accuracy:  
0.9585  
Epoch 9586/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9603  
Epoch 9587/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9601  
Epoch 9588/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0345 - accuracy:  
0.9599  
Epoch 9589/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy:  
0.9608  
Epoch 9590/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9594  
Epoch 9591/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0327 - accuracy:  
0.9589  
Epoch 9592/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy:  
0.9595  
Epoch 9593/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0333 - accuracy:  
0.9594  
Epoch 9594/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9594  
Epoch 9595/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy:  
0.9594  
Epoch 9596/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy:  
0.9595  
Epoch 9597/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9602  
Epoch 9598/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9611  
Epoch 9599/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9601  
Epoch 9600/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9591  
Epoch 9601/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9603  
Epoch 9602/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy:  
0.9585  
Epoch 9603/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy:  
0.9608  
Epoch 9604/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9581  
Epoch 9605/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9600  
Epoch 9606/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9593  
Epoch 9607/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy:  
0.9600  
Epoch 9608/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9597  
Epoch 9609/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9592  
Epoch 9610/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9605  
Epoch 9611/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9603  
Epoch 9612/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9598  
Epoch 9613/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9602  
Epoch 9614/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0328 - accuracy:  
0.9602  
Epoch 9615/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9595  
Epoch 9616/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9599  
Epoch 9617/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9594  
Epoch 9618/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9589  
Epoch 9619/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0325 - accuracy:  
0.9587  
Epoch 9620/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9588  
Epoch 9621/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9596  
Epoch 9622/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9585  
Epoch 9623/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0329 - accuracy:  
0.9613  
Epoch 9624/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9595  
Epoch 9625/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0328 - accuracy:  
0.9595  
Epoch 9626/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9597  
Epoch 9627/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9593  
Epoch 9628/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0330 - accuracy:  
0.9595  
Epoch 9629/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9605  
Epoch 9630/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0328 - accuracy:  
0.9588  
Epoch 9631/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy:  
0.9600  
Epoch 9632/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9589  
Epoch 9633/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9595  
Epoch 9634/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0330 - accuracy:  
0.9599  
Epoch 9635/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9606  
Epoch 9636/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0327 - accuracy:  
0.9582  
Epoch 9637/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9588  
Epoch 9638/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9586  
Epoch 9639/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9592  
Epoch 9640/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9609  
Epoch 9641/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9598  
Epoch 9642/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9601  
Epoch 9643/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9595  
Epoch 9644/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9609  
Epoch 9645/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9595  
Epoch 9646/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9596  
Epoch 9647/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9600  
Epoch 9648/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy: 0.9595  
Epoch 9649/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy: 0.9600  
Epoch 9650/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy: 0.9586  
Epoch 9651/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy: 0.9592  
Epoch 9652/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0329 - accuracy: 0.9600  
Epoch 9653/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy: 0.9599  
Epoch 9654/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy: 0.9596  
Epoch 9655/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0335 - accuracy: 0.9594  
Epoch 9656/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy: 0.9592  
Epoch 9657/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0327 - accuracy: 0.9601  
Epoch 9658/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0321 - accuracy: 0.9598  
Epoch 9659/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy: 0.9600  
Epoch 9660/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy: 0.9593  
Epoch 9661/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy: 0.9600  
Epoch 9662/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy: 0.9605  
Epoch 9663/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy: 0.9599  
Epoch 9664/100000



2/2 [=====] - 0s 117ms/step - loss: 0.0323 - accuracy: 0.9586  
Epoch 9665/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0325 - accuracy: 0.9597  
Epoch 9666/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy: 0.9598  
Epoch 9667/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy: 0.9588  
Epoch 9668/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0329 - accuracy: 0.9595  
Epoch 9669/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy: 0.9601  
Epoch 9670/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy: 0.9593  
Epoch 9671/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy: 0.9590  
Epoch 9672/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy: 0.9600  
Epoch 9673/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy: 0.9604  
Epoch 9674/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0337 - accuracy: 0.9597  
Epoch 9675/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy: 0.9593  
Epoch 9676/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy: 0.9594  
Epoch 9677/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy: 0.9597  
Epoch 9678/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy: 0.9604  
Epoch 9679/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0349 - accuracy: 0.9599  
Epoch 9680/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9591  
Epoch 9681/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9597  
Epoch 9682/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy:  
0.9603  
Epoch 9683/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9592  
Epoch 9684/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9592  
Epoch 9685/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9597  
Epoch 9686/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0337 - accuracy:  
0.9587  
Epoch 9687/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9595  
Epoch 9688/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9601  
Epoch 9689/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9595  
Epoch 9690/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9600  
Epoch 9691/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9596  
Epoch 9692/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9602  
Epoch 9693/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9590  
Epoch 9694/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9592  
Epoch 9695/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9606  
Epoch 9696/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9590  
Epoch 9697/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9599  
Epoch 9698/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy:  
0.9600  
Epoch 9699/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9587  
Epoch 9700/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9599  
Epoch 9701/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy:  
0.9604  
Epoch 9702/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0330 - accuracy:  
0.9605  
Epoch 9703/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9595  
Epoch 9704/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9589  
Epoch 9705/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9594  
Epoch 9706/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9591  
Epoch 9707/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9593  
Epoch 9708/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9593  
Epoch 9709/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0334 - accuracy:  
0.9606  
Epoch 9710/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9598  
Epoch 9711/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9597  
Epoch 9712/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9592  
Epoch 9713/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0346 - accuracy:  
0.9587  
Epoch 9714/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9597  
Epoch 9715/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy:  
0.9608  
Epoch 9716/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9602  
Epoch 9717/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0341 - accuracy:  
0.9601  
Epoch 9718/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0340 - accuracy:  
0.9609  
Epoch 9719/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9593  
Epoch 9720/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9593  
Epoch 9721/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9605  
Epoch 9722/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy:  
0.9606  
Epoch 9723/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9601  
Epoch 9724/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9596  
Epoch 9725/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy:  
0.9600  
Epoch 9726/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9604  
Epoch 9727/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9595  
Epoch 9728/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9592  
Epoch 9729/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9591  
Epoch 9730/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9596  
Epoch 9731/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0324 - accuracy:  
0.9588  
Epoch 9732/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9601  
Epoch 9733/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0326 - accuracy:  
0.9596  
Epoch 9734/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9601  
Epoch 9735/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9597  
Epoch 9736/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9592  
Epoch 9737/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy:  
0.9607  
Epoch 9738/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9591  
Epoch 9739/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9594  
Epoch 9740/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy:  
0.9591  
Epoch 9741/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0334 - accuracy:  
0.9602  
Epoch 9742/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0329 - accuracy:  
0.9600  
Epoch 9743/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9592  
Epoch 9744/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9598  
Epoch 9745/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9587  
Epoch 9746/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0332 - accuracy:  
0.9606  
Epoch 9747/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9589  
Epoch 9748/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9598  
Epoch 9749/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy:  
0.9604  
Epoch 9750/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9592  
Epoch 9751/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy:  
0.9598  
Epoch 9752/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9592  
Epoch 9753/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9592  
Epoch 9754/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy:  
0.9600  
Epoch 9755/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0340 - accuracy:  
0.9596  
Epoch 9756/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy:  
0.9598  
Epoch 9757/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9596  
Epoch 9758/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9597  
Epoch 9759/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9595  
Epoch 9760/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9592  
Epoch 9761/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0329 - accuracy:  
0.9592  
Epoch 9762/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9597  
Epoch 9763/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy:  
0.9596  
Epoch 9764/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9591  
Epoch 9765/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0328 - accuracy:  
0.9595  
Epoch 9766/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9602  
Epoch 9767/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9605  
Epoch 9768/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9594  
Epoch 9769/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9605  
Epoch 9770/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9602  
Epoch 9771/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9595  
Epoch 9772/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9601  
Epoch 9773/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9598  
Epoch 9774/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9598  
Epoch 9775/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9602  
Epoch 9776/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9598  
Epoch 9777/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9604  
Epoch 9778/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9597  
Epoch 9779/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9597  
Epoch 9780/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0326 - accuracy:  
0.9599  
Epoch 9781/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9590  
Epoch 9782/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0323 - accuracy:  
0.9599  
Epoch 9783/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9596  
Epoch 9784/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9595  
Epoch 9785/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy:  
0.9602  
Epoch 9786/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9593  
Epoch 9787/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9585  
Epoch 9788/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9592  
Epoch 9789/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9600  
Epoch 9790/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy:  
0.9593  
Epoch 9791/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0328 - accuracy:  
0.9606  
Epoch 9792/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9597  
Epoch 9793/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9607  
Epoch 9794/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9601  
Epoch 9795/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0330 - accuracy:  
0.9594  
Epoch 9796/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9602  
Epoch 9797/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9598  
Epoch 9798/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9604  
Epoch 9799/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy:  
0.9596  
Epoch 9800/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9594  
Epoch 9801/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0325 - accuracy:  
0.9591  
Epoch 9802/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9594  
Epoch 9803/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9596  
Epoch 9804/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9596  
Epoch 9805/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0324 - accuracy:  
0.9587  
Epoch 9806/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9599  
Epoch 9807/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9596  
Epoch 9808/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9589  
Epoch 9809/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9604  
Epoch 9810/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9601  
Epoch 9811/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0329 - accuracy:  
0.9587  
Epoch 9812/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9602  
Epoch 9813/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9595  
Epoch 9814/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9597  
Epoch 9815/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9592  
Epoch 9816/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9590  
Epoch 9817/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9588  
Epoch 9818/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9599  
Epoch 9819/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9607  
Epoch 9820/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0348 - accuracy:  
0.9596  
Epoch 9821/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9593  
Epoch 9822/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0337 - accuracy:  
0.9595  
Epoch 9823/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9590  
Epoch 9824/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0333 - accuracy:  
0.9588  
Epoch 9825/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9600  
Epoch 9826/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9599  
Epoch 9827/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9583  
Epoch 9828/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0340 - accuracy:  
0.9600  
Epoch 9829/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9599  
Epoch 9830/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9601  
Epoch 9831/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0329 - accuracy:  
0.9591  
Epoch 9832/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9588  
Epoch 9833/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9601  
Epoch 9834/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9592  
Epoch 9835/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9597  
Epoch 9836/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9599  
Epoch 9837/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0329 - accuracy:  
0.9594  
Epoch 9838/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy:  
0.9596  
Epoch 9839/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9587  
Epoch 9840/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9596  
Epoch 9841/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9599  
Epoch 9842/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9602  
Epoch 9843/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9593  
Epoch 9844/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9598  
Epoch 9845/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9598  
Epoch 9846/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9596  
Epoch 9847/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9599  
Epoch 9848/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9597  
Epoch 9849/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9584  
Epoch 9850/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy:  
0.9594  
Epoch 9851/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9592  
Epoch 9852/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9604  
Epoch 9853/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0333 - accuracy:  
0.9594  
Epoch 9854/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9605  
Epoch 9855/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9598  
Epoch 9856/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9607  
Epoch 9857/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0333 - accuracy:  
0.9592  
Epoch 9858/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9600  
Epoch 9859/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9593  
Epoch 9860/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9593  
Epoch 9861/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0323 - accuracy:  
0.9596  
Epoch 9862/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9598  
Epoch 9863/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0338 - accuracy:  
0.9588  
Epoch 9864/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9589  
Epoch 9865/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9600  
Epoch 9866/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9598  
Epoch 9867/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9594  
Epoch 9868/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9593  
Epoch 9869/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9599  
Epoch 9870/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9592  
Epoch 9871/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0325 - accuracy:  
0.9599  
Epoch 9872/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9593  
Epoch 9873/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9598  
Epoch 9874/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9600  
Epoch 9875/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9598  
Epoch 9876/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9598  
Epoch 9877/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9609  
Epoch 9878/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9586  
Epoch 9879/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9602  
Epoch 9880/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy:  
0.9591  
Epoch 9881/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9603  
Epoch 9882/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9601  
Epoch 9883/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9602  
Epoch 9884/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9594  
Epoch 9885/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9605  
Epoch 9886/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0327 - accuracy:  
0.9601  
Epoch 9887/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy:  
0.9584  
Epoch 9888/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9604  
Epoch 9889/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9596  
Epoch 9890/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9593  
Epoch 9891/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0352 - accuracy:  
0.9599  
Epoch 9892/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9597  
Epoch 9893/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy:  
0.9591  
Epoch 9894/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0386 - accuracy:  
0.9604  
Epoch 9895/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0365 - accuracy:  
0.9601  
Epoch 9896/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy:  
0.9603  
Epoch 9897/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0351 - accuracy:  
0.9599  
Epoch 9898/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0343 - accuracy:  
0.9602  
Epoch 9899/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9593  
Epoch 9900/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9601  
Epoch 9901/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9606  
Epoch 9902/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9601  
Epoch 9903/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9594  
Epoch 9904/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9603  
Epoch 9905/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0333 - accuracy:  
0.9597  
Epoch 9906/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9604  
Epoch 9907/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9589  
Epoch 9908/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0333 - accuracy:  
0.9590  
Epoch 9909/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9589  
Epoch 9910/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9593  
Epoch 9911/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0328 - accuracy:  
0.9595  
Epoch 9912/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9599  
Epoch 9913/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0324 - accuracy:  
0.9586  
Epoch 9914/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9591  
Epoch 9915/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9589  
Epoch 9916/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9613  
Epoch 9917/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9599  
Epoch 9918/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9595  
Epoch 9919/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9581  
Epoch 9920/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9601  
Epoch 9921/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9596  
Epoch 9922/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9599  
Epoch 9923/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9592  
Epoch 9924/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9597  
Epoch 9925/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy:  
0.9599  
Epoch 9926/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0327 - accuracy:  
0.9592  
Epoch 9927/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9597  
Epoch 9928/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9597  
Epoch 9929/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9600  
Epoch 9930/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9600  
Epoch 9931/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9604  
Epoch 9932/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9595  
Epoch 9933/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0328 - accuracy:  
0.9599  
Epoch 9934/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9598  
Epoch 9935/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0334 - accuracy:  
0.9594  
Epoch 9936/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0333 - accuracy:  
0.9600  
Epoch 9937/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0335 - accuracy:  
0.9593  
Epoch 9938/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9593  
Epoch 9939/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9592  
Epoch 9940/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9603  
Epoch 9941/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9601  
Epoch 9942/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0328 - accuracy:  
0.9593  
Epoch 9943/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9593  
Epoch 9944/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0330 - accuracy:  
0.9594  
Epoch 9945/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9606  
Epoch 9946/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9597  
Epoch 9947/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9586  
Epoch 9948/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0323 - accuracy:  
0.9593  
Epoch 9949/100000  
2/2 [=====] - 0s 134ms/step - loss: 0.0329 - accuracy:  
0.9607  
Epoch 9950/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0326 - accuracy:  
0.9583  
Epoch 9951/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0329 - accuracy:  
0.9600  
Epoch 9952/100000

2/2 [=====] - 0s 133ms/step - loss: 0.0326 - accuracy:  
0.9609  
Epoch 9953/100000  
2/2 [=====] - 0s 130ms/step - loss: 0.0331 - accuracy:  
0.9597  
Epoch 9954/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0329 - accuracy:  
0.9599  
Epoch 9955/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9592  
Epoch 9956/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0330 - accuracy:  
0.9597  
Epoch 9957/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9598  
Epoch 9958/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0323 - accuracy:  
0.9584  
Epoch 9959/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy:  
0.9606  
Epoch 9960/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0327 - accuracy:  
0.9590  
Epoch 9961/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9600  
Epoch 9962/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0330 - accuracy:  
0.9597  
Epoch 9963/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9598  
Epoch 9964/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0330 - accuracy:  
0.9593  
Epoch 9965/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0329 - accuracy:  
0.9590  
Epoch 9966/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0332 - accuracy:  
0.9596  
Epoch 9967/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9586  
Epoch 9968/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9596  
Epoch 9969/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9587  
Epoch 9970/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0330 - accuracy:  
0.9590  
Epoch 9971/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0338 - accuracy:  
0.9596  
Epoch 9972/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0334 - accuracy:  
0.9601  
Epoch 9973/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9586  
Epoch 9974/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9595  
Epoch 9975/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0331 - accuracy:  
0.9594  
Epoch 9976/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9601  
Epoch 9977/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9592  
Epoch 9978/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9595  
Epoch 9979/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9587  
Epoch 9980/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9590  
Epoch 9981/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9598  
Epoch 9982/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9599  
Epoch 9983/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9595  
Epoch 9984/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0333 - accuracy:  
0.9592  
Epoch 9985/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9596  
Epoch 9986/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9587  
Epoch 9987/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9596  
Epoch 9988/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9590  
Epoch 9989/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0328 - accuracy:  
0.9592  
Epoch 9990/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy:  
0.9591  
Epoch 9991/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy:  
0.9594  
Epoch 9992/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9599  
Epoch 9993/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0342 - accuracy:  
0.9611  
Epoch 9994/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9599  
Epoch 9995/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9599  
Epoch 9996/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9597  
Epoch 9997/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9599  
Epoch 9998/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0335 - accuracy:  
0.9591  
Epoch 9999/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9600  
Epoch 10000/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0328 - accuracy:  
0.9596  
Epoch 10001/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0327 - accuracy:  
0.9593  
Epoch 10002/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9599  
Epoch 10003/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0333 - accuracy:  
0.9596  
Epoch 10004/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0332 - accuracy:  
0.9592  
Epoch 10005/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0331 - accuracy:  
0.9604  
Epoch 10006/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9603  
Epoch 10007/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9590  
Epoch 10008/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9594  
Epoch 10009/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9604  
Epoch 10010/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9593  
Epoch 10011/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9595  
Epoch 10012/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9598  
Epoch 10013/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9597  
Epoch 10014/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0327 - accuracy:  
0.9602  
Epoch 10015/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy:  
0.9598  
Epoch 10016/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy:  
0.9597  
Epoch 10017/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0323 - accuracy:  
0.9596  
Epoch 10018/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9591  
Epoch 10019/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9601  
Epoch 10020/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9591  
Epoch 10021/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9604  
Epoch 10022/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9597  
Epoch 10023/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9603  
Epoch 10024/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0325 - accuracy:  
0.9596  
Epoch 10025/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0323 - accuracy:  
0.9600  
Epoch 10026/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9586  
Epoch 10027/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9596  
Epoch 10028/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9585  
Epoch 10029/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9598  
Epoch 10030/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy:  
0.9602  
Epoch 10031/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9604  
Epoch 10032/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9604  
Epoch 10033/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9595  
Epoch 10034/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0328 - accuracy:  
0.9608  
Epoch 10035/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy:  
0.9604  
Epoch 10036/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9597  
Epoch 10037/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9598  
Epoch 10038/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9592  
Epoch 10039/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0327 - accuracy:  
0.9595  
Epoch 10040/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9598  
Epoch 10041/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9593  
Epoch 10042/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0329 - accuracy:  
0.9588  
Epoch 10043/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9586  
Epoch 10044/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9590  
Epoch 10045/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9605  
Epoch 10046/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0334 - accuracy:  
0.9595  
Epoch 10047/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9599  
Epoch 10048/100000



2/2 [=====] - 0s 116ms/step - loss: 0.0337 - accuracy: 0.9601  
Epoch 10049/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0329 - accuracy: 0.9600  
Epoch 10050/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy: 0.9605  
Epoch 10051/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy: 0.9599  
Epoch 10052/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy: 0.9594  
Epoch 10053/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy: 0.9597  
Epoch 10054/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy: 0.9600  
Epoch 10055/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy: 0.9606  
Epoch 10056/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy: 0.9596  
Epoch 10057/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy: 0.9599  
Epoch 10058/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0324 - accuracy: 0.9600  
Epoch 10059/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy: 0.9590  
Epoch 10060/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy: 0.9604  
Epoch 10061/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy: 0.9594  
Epoch 10062/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0333 - accuracy: 0.9610  
Epoch 10063/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy: 0.9595  
Epoch 10064/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9593  
Epoch 10065/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0324 - accuracy:  
0.9597  
Epoch 10066/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9595  
Epoch 10067/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9597  
Epoch 10068/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0324 - accuracy:  
0.9593  
Epoch 10069/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0326 - accuracy:  
0.9603  
Epoch 10070/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9590  
Epoch 10071/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9597  
Epoch 10072/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9590  
Epoch 10073/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0327 - accuracy:  
0.9595  
Epoch 10074/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy:  
0.9594  
Epoch 10075/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0325 - accuracy:  
0.9596  
Epoch 10076/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9598  
Epoch 10077/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9590  
Epoch 10078/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy:  
0.9590  
Epoch 10079/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0329 - accuracy:  
0.9604  
Epoch 10080/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0323 - accuracy: 0.9596  
Epoch 10081/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0335 - accuracy: 0.9592  
Epoch 10082/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0332 - accuracy: 0.9599  
Epoch 10083/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy: 0.9596  
Epoch 10084/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy: 0.9604  
Epoch 10085/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy: 0.9600  
Epoch 10086/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy: 0.9589  
Epoch 10087/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy: 0.9596  
Epoch 10088/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy: 0.9589  
Epoch 10089/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0325 - accuracy: 0.9594  
Epoch 10090/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy: 0.9594  
Epoch 10091/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy: 0.9597  
Epoch 10092/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy: 0.9597  
Epoch 10093/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy: 0.9603  
Epoch 10094/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy: 0.9586  
Epoch 10095/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy: 0.9598  
Epoch 10096/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0323 - accuracy: 0.9594  
Epoch 10097/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy: 0.9592  
Epoch 10098/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy: 0.9589  
Epoch 10099/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0326 - accuracy: 0.9599  
Epoch 10100/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0330 - accuracy: 0.9597  
Epoch 10101/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0330 - accuracy: 0.9597  
Epoch 10102/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy: 0.9602  
Epoch 10103/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0333 - accuracy: 0.9595  
Epoch 10104/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0322 - accuracy: 0.9589  
Epoch 10105/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy: 0.9590  
Epoch 10106/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy: 0.9601  
Epoch 10107/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0331 - accuracy: 0.9597  
Epoch 10108/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy: 0.9592  
Epoch 10109/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy: 0.9602  
Epoch 10110/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy: 0.9595  
Epoch 10111/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy: 0.9598  
Epoch 10112/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy: 0.9591  
Epoch 10113/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy: 0.9592  
Epoch 10114/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy: 0.9599  
Epoch 10115/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0329 - accuracy: 0.9605  
Epoch 10116/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy: 0.9600  
Epoch 10117/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0329 - accuracy: 0.9588  
Epoch 10118/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0326 - accuracy: 0.9594  
Epoch 10119/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy: 0.9599  
Epoch 10120/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy: 0.9583  
Epoch 10121/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy: 0.9589  
Epoch 10122/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy: 0.9599  
Epoch 10123/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy: 0.9599  
Epoch 10124/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0330 - accuracy: 0.9602  
Epoch 10125/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0327 - accuracy: 0.9604  
Epoch 10126/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy: 0.9593  
Epoch 10127/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0341 - accuracy: 0.9583  
Epoch 10128/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0336 - accuracy:  
0.9601  
Epoch 10129/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy:  
0.9597  
Epoch 10130/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0362 - accuracy:  
0.9606  
Epoch 10131/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9596  
Epoch 10132/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0353 - accuracy:  
0.9603  
Epoch 10133/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0369 - accuracy:  
0.9600  
Epoch 10134/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy:  
0.9597  
Epoch 10135/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy:  
0.9594  
Epoch 10136/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0339 - accuracy:  
0.9604  
Epoch 10137/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0345 - accuracy:  
0.9600  
Epoch 10138/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy:  
0.9598  
Epoch 10139/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9602  
Epoch 10140/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0334 - accuracy:  
0.9599  
Epoch 10141/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9597  
Epoch 10142/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0334 - accuracy:  
0.9599  
Epoch 10143/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9588  
Epoch 10144/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0329 - accuracy:  
0.9602  
Epoch 10145/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0337 - accuracy:  
0.9602  
Epoch 10146/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9597  
Epoch 10147/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy:  
0.9601  
Epoch 10148/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9602  
Epoch 10149/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0333 - accuracy:  
0.9590  
Epoch 10150/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9594  
Epoch 10151/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy:  
0.9600  
Epoch 10152/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0330 - accuracy:  
0.9599  
Epoch 10153/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0326 - accuracy:  
0.9603  
Epoch 10154/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9602  
Epoch 10155/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0328 - accuracy:  
0.9602  
Epoch 10156/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy:  
0.9595  
Epoch 10157/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9585  
Epoch 10158/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0333 - accuracy:  
0.9598  
Epoch 10159/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0326 - accuracy:  
0.9594  
Epoch 10160/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9601  
Epoch 10161/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9590  
Epoch 10162/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9598  
Epoch 10163/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9591  
Epoch 10164/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0334 - accuracy:  
0.9614  
Epoch 10165/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0329 - accuracy:  
0.9601  
Epoch 10166/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9594  
Epoch 10167/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9600  
Epoch 10168/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9607  
Epoch 10169/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9596  
Epoch 10170/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9594  
Epoch 10171/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9598  
Epoch 10172/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9605  
Epoch 10173/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9595  
Epoch 10174/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9601  
Epoch 10175/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9593  
Epoch 10176/100000



2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9607  
Epoch 10177/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9599  
Epoch 10178/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9592  
Epoch 10179/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0338 - accuracy:  
0.9594  
Epoch 10180/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9591  
Epoch 10181/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9603  
Epoch 10182/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0335 - accuracy:  
0.9589  
Epoch 10183/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0329 - accuracy:  
0.9604  
Epoch 10184/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0335 - accuracy:  
0.9594  
Epoch 10185/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy:  
0.9593  
Epoch 10186/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
0.9600  
Epoch 10187/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0355 - accuracy:  
0.9588  
Epoch 10188/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0379 - accuracy:  
0.9598  
Epoch 10189/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0372 - accuracy:  
0.9603  
Epoch 10190/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0361 - accuracy:  
0.9590  
Epoch 10191/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0347 - accuracy:  
0.9600  
Epoch 10192/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0341 - accuracy:  
0.9600  
Epoch 10193/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0349 - accuracy:  
0.9597  
Epoch 10194/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
0.9593  
Epoch 10195/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9594  
Epoch 10196/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0332 - accuracy:  
0.9594  
Epoch 10197/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9599  
Epoch 10198/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9605  
Epoch 10199/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0334 - accuracy:  
0.9594  
Epoch 10200/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0327 - accuracy:  
0.9593  
Epoch 10201/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9599  
Epoch 10202/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9606  
Epoch 10203/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9592  
Epoch 10204/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0327 - accuracy:  
0.9593  
Epoch 10205/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9597  
Epoch 10206/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9597  
Epoch 10207/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9597  
Epoch 10208/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9591  
Epoch 10209/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9594  
Epoch 10210/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9597  
Epoch 10211/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0326 - accuracy:  
0.9590  
Epoch 10212/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9594  
Epoch 10213/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9590  
Epoch 10214/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9594  
Epoch 10215/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9596  
Epoch 10216/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9587  
Epoch 10217/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9595  
Epoch 10218/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0326 - accuracy:  
0.9604  
Epoch 10219/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9583  
Epoch 10220/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9609  
Epoch 10221/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9593  
Epoch 10222/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9591  
Epoch 10223/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9591  
Epoch 10224/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0324 - accuracy: 0.9595  
Epoch 10225/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy: 0.9600  
Epoch 10226/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy: 0.9589  
Epoch 10227/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy: 0.9593  
Epoch 10228/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy: 0.9601  
Epoch 10229/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy: 0.9603  
Epoch 10230/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy: 0.9592  
Epoch 10231/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy: 0.9596  
Epoch 10232/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy: 0.9605  
Epoch 10233/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy: 0.9591  
Epoch 10234/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy: 0.9604  
Epoch 10235/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy: 0.9597  
Epoch 10236/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy: 0.9591  
Epoch 10237/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy: 0.9603  
Epoch 10238/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0329 - accuracy: 0.9595  
Epoch 10239/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0330 - accuracy: 0.9592  
Epoch 10240/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy: 0.9595  
Epoch 10241/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy: 0.9593  
Epoch 10242/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy: 0.9593  
Epoch 10243/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy: 0.9604  
Epoch 10244/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy: 0.9590  
Epoch 10245/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy: 0.9594  
Epoch 10246/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0325 - accuracy: 0.9590  
Epoch 10247/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy: 0.9600  
Epoch 10248/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy: 0.9598  
Epoch 10249/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy: 0.9593  
Epoch 10250/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy: 0.9593  
Epoch 10251/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy: 0.9594  
Epoch 10252/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0325 - accuracy: 0.9600  
Epoch 10253/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy: 0.9596  
Epoch 10254/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy: 0.9594  
Epoch 10255/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy: 0.9601  
Epoch 10256/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0330 - accuracy:  
0.9606  
Epoch 10257/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9596  
Epoch 10258/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0327 - accuracy:  
0.9601  
Epoch 10259/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9592  
Epoch 10260/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy:  
0.9590  
Epoch 10261/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9595  
Epoch 10262/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0329 - accuracy:  
0.9594  
Epoch 10263/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9601  
Epoch 10264/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9594  
Epoch 10265/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9597  
Epoch 10266/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9595  
Epoch 10267/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9608  
Epoch 10268/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9590  
Epoch 10269/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0334 - accuracy:  
0.9604  
Epoch 10270/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0341 - accuracy:  
0.9597  
Epoch 10271/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0330 - accuracy:  
0.9601  
Epoch 10272/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy: 0.9603  
Epoch 10273/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy: 0.9599  
Epoch 10274/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy: 0.9592  
Epoch 10275/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy: 0.9592  
Epoch 10276/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0328 - accuracy: 0.9599  
Epoch 10277/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy: 0.9601  
Epoch 10278/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0325 - accuracy: 0.9597  
Epoch 10279/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy: 0.9593  
Epoch 10280/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0327 - accuracy: 0.9593  
Epoch 10281/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy: 0.9604  
Epoch 10282/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy: 0.9595  
Epoch 10283/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0338 - accuracy: 0.9594  
Epoch 10284/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy: 0.9601  
Epoch 10285/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0336 - accuracy: 0.9599  
Epoch 10286/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy: 0.9602  
Epoch 10287/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy: 0.9592  
Epoch 10288/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy:  
0.9585  
Epoch 10289/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9599  
Epoch 10290/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0337 - accuracy:  
0.9592  
Epoch 10291/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9596  
Epoch 10292/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9594  
Epoch 10293/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0335 - accuracy:  
0.9602  
Epoch 10294/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0324 - accuracy:  
0.9588  
Epoch 10295/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9594  
Epoch 10296/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9607  
Epoch 10297/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9599  
Epoch 10298/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9594  
Epoch 10299/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9605  
Epoch 10300/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0324 - accuracy:  
0.9590  
Epoch 10301/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0328 - accuracy:  
0.9603  
Epoch 10302/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9594  
Epoch 10303/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0333 - accuracy:  
0.9598  
Epoch 10304/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9600  
Epoch 10305/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9604  
Epoch 10306/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9586  
Epoch 10307/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9604  
Epoch 10308/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9601  
Epoch 10309/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0326 - accuracy:  
0.9588  
Epoch 10310/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9596  
Epoch 10311/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9609  
Epoch 10312/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9606  
Epoch 10313/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9593  
Epoch 10314/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9607  
Epoch 10315/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0326 - accuracy:  
0.9597  
Epoch 10316/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9596  
Epoch 10317/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9602  
Epoch 10318/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9602  
Epoch 10319/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9600  
Epoch 10320/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0327 - accuracy:  
0.9604  
Epoch 10321/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9596  
Epoch 10322/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9597  
Epoch 10323/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9590  
Epoch 10324/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9590  
Epoch 10325/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9591  
Epoch 10326/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9589  
Epoch 10327/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9593  
Epoch 10328/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9584  
Epoch 10329/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9595  
Epoch 10330/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9595  
Epoch 10331/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9590  
Epoch 10332/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9596  
Epoch 10333/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0322 - accuracy:  
0.9603  
Epoch 10334/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0329 - accuracy:  
0.9597  
Epoch 10335/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0329 - accuracy:  
0.9588  
Epoch 10336/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy: 0.9605  
Epoch 10337/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy: 0.9601  
Epoch 10338/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy: 0.9591  
Epoch 10339/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0324 - accuracy: 0.9596  
Epoch 10340/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0328 - accuracy: 0.9601  
Epoch 10341/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy: 0.9596  
Epoch 10342/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy: 0.9597  
Epoch 10343/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0335 - accuracy: 0.9593  
Epoch 10344/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy: 0.9593  
Epoch 10345/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy: 0.9590  
Epoch 10346/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy: 0.9596  
Epoch 10347/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0330 - accuracy: 0.9590  
Epoch 10348/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0330 - accuracy: 0.9596  
Epoch 10349/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0325 - accuracy: 0.9600  
Epoch 10350/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy: 0.9597  
Epoch 10351/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0321 - accuracy: 0.9596  
Epoch 10352/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9595  
Epoch 10353/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9600  
Epoch 10354/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9594  
Epoch 10355/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0328 - accuracy:  
0.9595  
Epoch 10356/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9601  
Epoch 10357/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9592  
Epoch 10358/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9598  
Epoch 10359/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0336 - accuracy:  
0.9596  
Epoch 10360/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9604  
Epoch 10361/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0328 - accuracy:  
0.9594  
Epoch 10362/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9591  
Epoch 10363/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0333 - accuracy:  
0.9596  
Epoch 10364/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0329 - accuracy:  
0.9600  
Epoch 10365/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9598  
Epoch 10366/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0328 - accuracy:  
0.9600  
Epoch 10367/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0334 - accuracy:  
0.9589  
Epoch 10368/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0333 - accuracy:  
0.9587  
Epoch 10369/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0339 - accuracy:  
0.9592  
Epoch 10370/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy:  
0.9591  
Epoch 10371/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9601  
Epoch 10372/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9607  
Epoch 10373/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0323 - accuracy:  
0.9597  
Epoch 10374/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0328 - accuracy:  
0.9604  
Epoch 10375/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0329 - accuracy:  
0.9598  
Epoch 10376/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9589  
Epoch 10377/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9595  
Epoch 10378/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9597  
Epoch 10379/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9595  
Epoch 10380/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9591  
Epoch 10381/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0321 - accuracy:  
0.9587  
Epoch 10382/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9593  
Epoch 10383/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9600  
Epoch 10384/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy: 0.9590  
Epoch 10385/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy: 0.9586  
Epoch 10386/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy: 0.9604  
Epoch 10387/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0324 - accuracy: 0.9594  
Epoch 10388/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy: 0.9603  
Epoch 10389/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy: 0.9608  
Epoch 10390/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy: 0.9592  
Epoch 10391/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy: 0.9597  
Epoch 10392/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy: 0.9599  
Epoch 10393/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy: 0.9596  
Epoch 10394/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0335 - accuracy: 0.9601  
Epoch 10395/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0328 - accuracy: 0.9602  
Epoch 10396/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0328 - accuracy: 0.9595  
Epoch 10397/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0342 - accuracy: 0.9599  
Epoch 10398/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy: 0.9606  
Epoch 10399/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy: 0.9600  
Epoch 10400/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0360 - accuracy: 0.9582  
Epoch 10401/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy: 0.9602  
Epoch 10402/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy: 0.9594  
Epoch 10403/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy: 0.9594  
Epoch 10404/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy: 0.9603  
Epoch 10405/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy: 0.9589  
Epoch 10406/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy: 0.9592  
Epoch 10407/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy: 0.9590  
Epoch 10408/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy: 0.9608  
Epoch 10409/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy: 0.9590  
Epoch 10410/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0325 - accuracy: 0.9605  
Epoch 10411/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0326 - accuracy: 0.9605  
Epoch 10412/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy: 0.9594  
Epoch 10413/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy: 0.9601  
Epoch 10414/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy: 0.9602  
Epoch 10415/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy: 0.9593  
Epoch 10416/100000

2/2 [=====] - 0s 120ms/step - loss: 0.0325 - accuracy:  
0.9596  
Epoch 10417/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy:  
0.9603  
Epoch 10418/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0337 - accuracy:  
0.9592  
Epoch 10419/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9602  
Epoch 10420/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0339 - accuracy:  
0.9591  
Epoch 10421/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9603  
Epoch 10422/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9596  
Epoch 10423/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9590  
Epoch 10424/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9600  
Epoch 10425/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0336 - accuracy:  
0.9598  
Epoch 10426/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0325 - accuracy:  
0.9589  
Epoch 10427/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9600  
Epoch 10428/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9600  
Epoch 10429/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9600  
Epoch 10430/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9596  
Epoch 10431/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9602  
Epoch 10432/100000



2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy:  
0.9613  
Epoch 10433/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9603  
Epoch 10434/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9592  
Epoch 10435/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0332 - accuracy:  
0.9594  
Epoch 10436/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0332 - accuracy:  
0.9596  
Epoch 10437/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9592  
Epoch 10438/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9594  
Epoch 10439/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9590  
Epoch 10440/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9594  
Epoch 10441/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0335 - accuracy:  
0.9607  
Epoch 10442/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9597  
Epoch 10443/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9602  
Epoch 10444/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0330 - accuracy:  
0.9597  
Epoch 10445/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0329 - accuracy:  
0.9597  
Epoch 10446/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9598  
Epoch 10447/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9592  
Epoch 10448/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9592  
Epoch 10449/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9596  
Epoch 10450/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9604  
Epoch 10451/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0328 - accuracy:  
0.9590  
Epoch 10452/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9593  
Epoch 10453/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9599  
Epoch 10454/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9600  
Epoch 10455/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0324 - accuracy:  
0.9599  
Epoch 10456/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9602  
Epoch 10457/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9589  
Epoch 10458/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0323 - accuracy:  
0.9592  
Epoch 10459/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9597  
Epoch 10460/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9593  
Epoch 10461/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0322 - accuracy:  
0.9588  
Epoch 10462/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9598  
Epoch 10463/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9600  
Epoch 10464/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0322 - accuracy:  
0.9602  
Epoch 10465/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9612  
Epoch 10466/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0328 - accuracy:  
0.9597  
Epoch 10467/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0325 - accuracy:  
0.9595  
Epoch 10468/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0322 - accuracy:  
0.9594  
Epoch 10469/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0321 - accuracy:  
0.9594  
Epoch 10470/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy:  
0.9603  
Epoch 10471/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0322 - accuracy:  
0.9596  
Epoch 10472/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9597  
Epoch 10473/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9599  
Epoch 10474/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0319 - accuracy:  
0.9590  
Epoch 10475/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0322 - accuracy:  
0.9585  
Epoch 10476/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0322 - accuracy:  
0.9598  
Epoch 10477/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9599  
Epoch 10478/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0329 - accuracy:  
0.9605  
Epoch 10479/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9594  
Epoch 10480/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9598  
Epoch 10481/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9598  
Epoch 10482/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9600  
Epoch 10483/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0322 - accuracy:  
0.9601  
Epoch 10484/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9595  
Epoch 10485/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy:  
0.9599  
Epoch 10486/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9598  
Epoch 10487/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy:  
0.9606  
Epoch 10488/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9604  
Epoch 10489/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9582  
Epoch 10490/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
0.9588  
Epoch 10491/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0335 - accuracy:  
0.9595  
Epoch 10492/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0338 - accuracy:  
0.9592  
Epoch 10493/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0352 - accuracy:  
0.9601  
Epoch 10494/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0344 - accuracy:  
0.9598  
Epoch 10495/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0333 - accuracy:  
0.9603  
Epoch 10496/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0329 - accuracy:  
0.9587  
Epoch 10497/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0334 - accuracy:  
0.9594  
Epoch 10498/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy:  
0.9603  
Epoch 10499/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9598  
Epoch 10500/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0339 - accuracy:  
0.9593  
Epoch 10501/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0342 - accuracy:  
0.9608  
Epoch 10502/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0336 - accuracy:  
0.9589  
Epoch 10503/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0335 - accuracy:  
0.9590  
Epoch 10504/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0330 - accuracy:  
0.9593  
Epoch 10505/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0332 - accuracy:  
0.9595  
Epoch 10506/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9602  
Epoch 10507/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0328 - accuracy:  
0.9601  
Epoch 10508/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9591  
Epoch 10509/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9597  
Epoch 10510/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9601  
Epoch 10511/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9600  
Epoch 10512/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9594  
Epoch 10513/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9593  
Epoch 10514/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9592  
Epoch 10515/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9600  
Epoch 10516/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9607  
Epoch 10517/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0326 - accuracy:  
0.9606  
Epoch 10518/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy:  
0.9594  
Epoch 10519/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0329 - accuracy:  
0.9585  
Epoch 10520/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9604  
Epoch 10521/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0325 - accuracy:  
0.9593  
Epoch 10522/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9592  
Epoch 10523/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9593  
Epoch 10524/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9604  
Epoch 10525/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9593  
Epoch 10526/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9601  
Epoch 10527/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9598  
Epoch 10528/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9601  
Epoch 10529/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9597  
Epoch 10530/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0318 - accuracy:  
0.9591  
Epoch 10531/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9588  
Epoch 10532/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9585  
Epoch 10533/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy:  
0.9591  
Epoch 10534/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0326 - accuracy:  
0.9602  
Epoch 10535/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9590  
Epoch 10536/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9591  
Epoch 10537/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9600  
Epoch 10538/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9602  
Epoch 10539/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0328 - accuracy:  
0.9589  
Epoch 10540/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0341 - accuracy:  
0.9600  
Epoch 10541/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9603  
Epoch 10542/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9591  
Epoch 10543/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9606  
Epoch 10544/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9591  
Epoch 10545/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0324 - accuracy:  
0.9596  
Epoch 10546/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9590  
Epoch 10547/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0327 - accuracy:  
0.9599  
Epoch 10548/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9602  
Epoch 10549/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0325 - accuracy:  
0.9607  
Epoch 10550/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0327 - accuracy:  
0.9595  
Epoch 10551/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9590  
Epoch 10552/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0329 - accuracy:  
0.9598  
Epoch 10553/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9593  
Epoch 10554/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9600  
Epoch 10555/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9597  
Epoch 10556/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9597  
Epoch 10557/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy:  
0.9604  
Epoch 10558/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0354 - accuracy:  
0.9598  
Epoch 10559/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9595  
Epoch 10560/100000



2/2 [=====] - 0s 116ms/step - loss: 0.0330 - accuracy:  
0.9585  
Epoch 10561/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
0.9599  
Epoch 10562/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9594  
Epoch 10563/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0328 - accuracy:  
0.9596  
Epoch 10564/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9587  
Epoch 10565/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9601  
Epoch 10566/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9594  
Epoch 10567/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0325 - accuracy:  
0.9600  
Epoch 10568/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9594  
Epoch 10569/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9590  
Epoch 10570/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9595  
Epoch 10571/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0323 - accuracy:  
0.9585  
Epoch 10572/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9597  
Epoch 10573/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0330 - accuracy:  
0.9598  
Epoch 10574/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9594  
Epoch 10575/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9597  
Epoch 10576/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0322 - accuracy:  
0.9595  
Epoch 10577/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9597  
Epoch 10578/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9604  
Epoch 10579/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0320 - accuracy:  
0.9588  
Epoch 10580/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9593  
Epoch 10581/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9594  
Epoch 10582/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9597  
Epoch 10583/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9591  
Epoch 10584/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9600  
Epoch 10585/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9593  
Epoch 10586/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9599  
Epoch 10587/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0327 - accuracy:  
0.9607  
Epoch 10588/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9605  
Epoch 10589/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9602  
Epoch 10590/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9604  
Epoch 10591/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9591  
Epoch 10592/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9596  
Epoch 10593/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0336 - accuracy:  
0.9597  
Epoch 10594/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9597  
Epoch 10595/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9604  
Epoch 10596/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9593  
Epoch 10597/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9595  
Epoch 10598/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0335 - accuracy:  
0.9596  
Epoch 10599/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0328 - accuracy:  
0.9601  
Epoch 10600/100000  
2/2 [=====] - 0s 126ms/step - loss: 0.0322 - accuracy:  
0.9591  
Epoch 10601/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0330 - accuracy:  
0.9598  
Epoch 10602/100000  
2/2 [=====] - 0s 131ms/step - loss: 0.0338 - accuracy:  
0.9601  
Epoch 10603/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0324 - accuracy:  
0.9587  
Epoch 10604/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0326 - accuracy:  
0.9604  
Epoch 10605/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0329 - accuracy:  
0.9591  
Epoch 10606/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0337 - accuracy:  
0.9599  
Epoch 10607/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0326 - accuracy:  
0.9590  
Epoch 10608/100000

2/2 [=====] - 0s 124ms/step - loss: 0.0326 - accuracy: 0.9595  
Epoch 10609/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy: 0.9601  
Epoch 10610/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0337 - accuracy: 0.9598  
Epoch 10611/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0326 - accuracy: 0.9595  
Epoch 10612/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0329 - accuracy: 0.9597  
Epoch 10613/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0327 - accuracy: 0.9597  
Epoch 10614/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0329 - accuracy: 0.9589  
Epoch 10615/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy: 0.9607  
Epoch 10616/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0337 - accuracy: 0.9596  
Epoch 10617/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy: 0.9589  
Epoch 10618/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy: 0.9589  
Epoch 10619/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0328 - accuracy: 0.9610  
Epoch 10620/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0330 - accuracy: 0.9602  
Epoch 10621/100000  
2/2 [=====] - 0s 140ms/step - loss: 0.0331 - accuracy: 0.9604  
Epoch 10622/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0326 - accuracy: 0.9598  
Epoch 10623/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0323 - accuracy: 0.9603  
Epoch 10624/100000

2/2 [=====] - 0s 128ms/step - loss: 0.0324 - accuracy:  
0.9606  
Epoch 10625/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0325 - accuracy:  
0.9594  
Epoch 10626/100000  
2/2 [=====] - 0s 127ms/step - loss: 0.0321 - accuracy:  
0.9598  
Epoch 10627/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0322 - accuracy:  
0.9596  
Epoch 10628/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9591  
Epoch 10629/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0319 - accuracy:  
0.9593  
Epoch 10630/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9588  
Epoch 10631/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0319 - accuracy:  
0.9591  
Epoch 10632/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9603  
Epoch 10633/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9590  
Epoch 10634/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9601  
Epoch 10635/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9596  
Epoch 10636/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9604  
Epoch 10637/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9592  
Epoch 10638/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0328 - accuracy:  
0.9597  
Epoch 10639/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9594  
Epoch 10640/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9589  
Epoch 10641/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0335 - accuracy:  
0.9599  
Epoch 10642/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9594  
Epoch 10643/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0330 - accuracy:  
0.9598  
Epoch 10644/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0328 - accuracy:  
0.9596  
Epoch 10645/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9595  
Epoch 10646/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9601  
Epoch 10647/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9596  
Epoch 10648/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9597  
Epoch 10649/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9608  
Epoch 10650/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9593  
Epoch 10651/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9596  
Epoch 10652/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9597  
Epoch 10653/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9604  
Epoch 10654/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9586  
Epoch 10655/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0323 - accuracy:  
0.9594  
Epoch 10656/100000

2/2 [=====] - 0s 119ms/step - loss: 0.0325 - accuracy:  
0.9605  
Epoch 10657/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0325 - accuracy:  
0.9590  
Epoch 10658/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0322 - accuracy:  
0.9597  
Epoch 10659/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9591  
Epoch 10660/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0323 - accuracy:  
0.9587  
Epoch 10661/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9595  
Epoch 10662/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9593  
Epoch 10663/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9590  
Epoch 10664/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9604  
Epoch 10665/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0326 - accuracy:  
0.9597  
Epoch 10666/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9590  
Epoch 10667/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9608  
Epoch 10668/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9606  
Epoch 10669/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy:  
0.9586  
Epoch 10670/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0382 - accuracy:  
0.9598  
Epoch 10671/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
0.9600  
Epoch 10672/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0353 - accuracy:  
0.9600  
Epoch 10673/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0352 - accuracy:  
0.9600  
Epoch 10674/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0350 - accuracy:  
0.9596  
Epoch 10675/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
0.9594  
Epoch 10676/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9604  
Epoch 10677/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9602  
Epoch 10678/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0337 - accuracy:  
0.9596  
Epoch 10679/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9588  
Epoch 10680/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9600  
Epoch 10681/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0329 - accuracy:  
0.9591  
Epoch 10682/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9594  
Epoch 10683/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9591  
Epoch 10684/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9596  
Epoch 10685/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0322 - accuracy:  
0.9592  
Epoch 10686/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0323 - accuracy:  
0.9592  
Epoch 10687/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9595  
Epoch 10688/100000



2/2 [=====] - 0s 118ms/step - loss: 0.0324 - accuracy:  
0.9596  
Epoch 10689/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0321 - accuracy:  
0.9595  
Epoch 10690/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0324 - accuracy:  
0.9597  
Epoch 10691/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy:  
0.9595  
Epoch 10692/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0323 - accuracy:  
0.9594  
Epoch 10693/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0325 - accuracy:  
0.9608  
Epoch 10694/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0320 - accuracy:  
0.9582  
Epoch 10695/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0332 - accuracy:  
0.9598  
Epoch 10696/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy:  
0.9607  
Epoch 10697/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0334 - accuracy:  
0.9598  
Epoch 10698/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0336 - accuracy:  
0.9601  
Epoch 10699/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9584  
Epoch 10700/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9596  
Epoch 10701/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9602  
Epoch 10702/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9599  
Epoch 10703/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
0.9598  
Epoch 10704/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9592  
Epoch 10705/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0326 - accuracy:  
0.9601  
Epoch 10706/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9603  
Epoch 10707/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0339 - accuracy:  
0.9596  
Epoch 10708/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0335 - accuracy:  
0.9593  
Epoch 10709/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9599  
Epoch 10710/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0329 - accuracy:  
0.9591  
Epoch 10711/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9591  
Epoch 10712/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0329 - accuracy:  
0.9594  
Epoch 10713/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0325 - accuracy:  
0.9594  
Epoch 10714/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9603  
Epoch 10715/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9597  
Epoch 10716/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0337 - accuracy:  
0.9597  
Epoch 10717/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9600  
Epoch 10718/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9590  
Epoch 10719/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy:  
0.9596  
Epoch 10720/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0323 - accuracy:  
0.9600  
Epoch 10721/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0328 - accuracy:  
0.9597  
Epoch 10722/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0320 - accuracy:  
0.9593  
Epoch 10723/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9595  
Epoch 10724/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0325 - accuracy:  
0.9594  
Epoch 10725/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0329 - accuracy:  
0.9607  
Epoch 10726/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9588  
Epoch 10727/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0325 - accuracy:  
0.9605  
Epoch 10728/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9589  
Epoch 10729/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9590  
Epoch 10730/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9586  
Epoch 10731/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9606  
Epoch 10732/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9597  
Epoch 10733/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9592  
Epoch 10734/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy:  
0.9598  
Epoch 10735/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0318 - accuracy:  
0.9596  
Epoch 10736/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy:  
0.9595  
Epoch 10737/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9603  
Epoch 10738/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy:  
0.9603  
Epoch 10739/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9600  
Epoch 10740/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy:  
0.9598  
Epoch 10741/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9593  
Epoch 10742/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9604  
Epoch 10743/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9598  
Epoch 10744/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0329 - accuracy:  
0.9604  
Epoch 10745/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9593  
Epoch 10746/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy:  
0.9601  
Epoch 10747/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9590  
Epoch 10748/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0318 - accuracy:  
0.9588  
Epoch 10749/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0323 - accuracy:  
0.9590  
Epoch 10750/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0325 - accuracy:  
0.9606  
Epoch 10751/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0321 - accuracy:  
0.9595  
Epoch 10752/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9594  
Epoch 10753/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0329 - accuracy:  
0.9596  
Epoch 10754/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0325 - accuracy:  
0.9604  
Epoch 10755/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0328 - accuracy:  
0.9609  
Epoch 10756/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0322 - accuracy:  
0.9594  
Epoch 10757/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9591  
Epoch 10758/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9606  
Epoch 10759/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9590  
Epoch 10760/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9594  
Epoch 10761/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0328 - accuracy:  
0.9606  
Epoch 10762/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0330 - accuracy:  
0.9594  
Epoch 10763/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0321 - accuracy:  
0.9588  
Epoch 10764/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0335 - accuracy:  
0.9591  
Epoch 10765/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9592  
Epoch 10766/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0330 - accuracy:  
0.9599  
Epoch 10767/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0333 - accuracy:  
0.9589  
Epoch 10768/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9592  
Epoch 10769/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9587  
Epoch 10770/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0339 - accuracy:  
0.9593  
Epoch 10771/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0328 - accuracy:  
0.9605  
Epoch 10772/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9593  
Epoch 10773/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9598  
Epoch 10774/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0329 - accuracy:  
0.9589  
Epoch 10775/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9589  
Epoch 10776/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9596  
Epoch 10777/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0329 - accuracy:  
0.9606  
Epoch 10778/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0330 - accuracy:  
0.9600  
Epoch 10779/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0329 - accuracy:  
0.9595  
Epoch 10780/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9593  
Epoch 10781/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0325 - accuracy:  
0.9594  
Epoch 10782/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9598  
Epoch 10783/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0324 - accuracy:  
0.9590  
Epoch 10784/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy: 0.9602  
Epoch 10785/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy: 0.9596  
Epoch 10786/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0319 - accuracy: 0.9592  
Epoch 10787/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0330 - accuracy: 0.9600  
Epoch 10788/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy: 0.9591  
Epoch 10789/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy: 0.9596  
Epoch 10790/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy: 0.9603  
Epoch 10791/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy: 0.9597  
Epoch 10792/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy: 0.9597  
Epoch 10793/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy: 0.9593  
Epoch 10794/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy: 0.9588  
Epoch 10795/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0328 - accuracy: 0.9600  
Epoch 10796/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy: 0.9601  
Epoch 10797/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy: 0.9597  
Epoch 10798/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy: 0.9599  
Epoch 10799/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0328 - accuracy: 0.9599  
Epoch 10800/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy: 0.9598  
Epoch 10801/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy: 0.9587  
Epoch 10802/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy: 0.9595  
Epoch 10803/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0336 - accuracy: 0.9593  
Epoch 10804/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0336 - accuracy: 0.9594  
Epoch 10805/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy: 0.9602  
Epoch 10806/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy: 0.9600  
Epoch 10807/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0331 - accuracy: 0.9594  
Epoch 10808/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0329 - accuracy: 0.9590  
Epoch 10809/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy: 0.9611  
Epoch 10810/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0333 - accuracy: 0.9595  
Epoch 10811/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0331 - accuracy: 0.9592  
Epoch 10812/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy: 0.9598  
Epoch 10813/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy: 0.9599  
Epoch 10814/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0324 - accuracy: 0.9593  
Epoch 10815/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy: 0.9598  
Epoch 10816/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9605  
Epoch 10817/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9601  
Epoch 10818/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9593  
Epoch 10819/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9594  
Epoch 10820/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9602  
Epoch 10821/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9594  
Epoch 10822/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0329 - accuracy:  
0.9601  
Epoch 10823/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9590  
Epoch 10824/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9594  
Epoch 10825/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy:  
0.9602  
Epoch 10826/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9588  
Epoch 10827/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9600  
Epoch 10828/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9595  
Epoch 10829/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy:  
0.9592  
Epoch 10830/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9605  
Epoch 10831/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9599  
Epoch 10832/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0322 - accuracy:  
0.9594  
Epoch 10833/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9590  
Epoch 10834/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0331 - accuracy:  
0.9597  
Epoch 10835/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0334 - accuracy:  
0.9604  
Epoch 10836/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0326 - accuracy:  
0.9590  
Epoch 10837/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy:  
0.9592  
Epoch 10838/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9598  
Epoch 10839/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0325 - accuracy:  
0.9605  
Epoch 10840/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9602  
Epoch 10841/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9591  
Epoch 10842/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9599  
Epoch 10843/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0321 - accuracy:  
0.9605  
Epoch 10844/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy:  
0.9603  
Epoch 10845/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9598  
Epoch 10846/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9599  
Epoch 10847/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0322 - accuracy:  
0.9599  
Epoch 10848/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy: 0.9597  
Epoch 10849/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0329 - accuracy: 0.9599  
Epoch 10850/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0326 - accuracy: 0.9601  
Epoch 10851/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy: 0.9597  
Epoch 10852/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy: 0.9591  
Epoch 10853/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy: 0.9593  
Epoch 10854/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy: 0.9599  
Epoch 10855/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy: 0.9597  
Epoch 10856/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy: 0.9599  
Epoch 10857/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy: 0.9597  
Epoch 10858/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy: 0.9596  
Epoch 10859/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy: 0.9602  
Epoch 10860/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0336 - accuracy: 0.9595  
Epoch 10861/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0329 - accuracy: 0.9598  
Epoch 10862/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0330 - accuracy: 0.9593  
Epoch 10863/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy: 0.9608  
Epoch 10864/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9599  
Epoch 10865/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0336 - accuracy:  
0.9597  
Epoch 10866/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0333 - accuracy:  
0.9598  
Epoch 10867/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9602  
Epoch 10868/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy:  
0.9593  
Epoch 10869/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9590  
Epoch 10870/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0324 - accuracy:  
0.9596  
Epoch 10871/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9592  
Epoch 10872/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9587  
Epoch 10873/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9593  
Epoch 10874/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0326 - accuracy:  
0.9594  
Epoch 10875/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9587  
Epoch 10876/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9592  
Epoch 10877/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0322 - accuracy:  
0.9601  
Epoch 10878/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9598  
Epoch 10879/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9594  
Epoch 10880/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9602  
Epoch 10881/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9605  
Epoch 10882/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy:  
0.9596  
Epoch 10883/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9595  
Epoch 10884/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9593  
Epoch 10885/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9588  
Epoch 10886/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9587  
Epoch 10887/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0329 - accuracy:  
0.9589  
Epoch 10888/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9588  
Epoch 10889/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9594  
Epoch 10890/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9584  
Epoch 10891/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9596  
Epoch 10892/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0323 - accuracy:  
0.9596  
Epoch 10893/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0325 - accuracy:  
0.9604  
Epoch 10894/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0322 - accuracy:  
0.9587  
Epoch 10895/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0330 - accuracy:  
0.9584  
Epoch 10896/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0326 - accuracy:  
0.9592  
Epoch 10897/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9591  
Epoch 10898/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0326 - accuracy:  
0.9595  
Epoch 10899/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9600  
Epoch 10900/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9594  
Epoch 10901/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9598  
Epoch 10902/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9612  
Epoch 10903/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9593  
Epoch 10904/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0330 - accuracy:  
0.9598  
Epoch 10905/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0327 - accuracy:  
0.9594  
Epoch 10906/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9599  
Epoch 10907/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0342 - accuracy:  
0.9593  
Epoch 10908/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy:  
0.9599  
Epoch 10909/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy:  
0.9589  
Epoch 10910/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0378 - accuracy:  
0.9594  
Epoch 10911/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy:  
0.9602  
Epoch 10912/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0339 - accuracy:  
0.9600  
Epoch 10913/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0337 - accuracy:  
0.9589  
Epoch 10914/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0340 - accuracy:  
0.9597  
Epoch 10915/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9594  
Epoch 10916/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy:  
0.9598  
Epoch 10917/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9585  
Epoch 10918/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0328 - accuracy:  
0.9601  
Epoch 10919/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9599  
Epoch 10920/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9588  
Epoch 10921/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9595  
Epoch 10922/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9598  
Epoch 10923/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0324 - accuracy:  
0.9604  
Epoch 10924/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9588  
Epoch 10925/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9601  
Epoch 10926/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9603  
Epoch 10927/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9599  
Epoch 10928/100000

2/2 [=====] - 0s 120ms/step - loss: 0.0340 - accuracy:  
0.9585  
Epoch 10929/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0328 - accuracy:  
0.9601  
Epoch 10930/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0325 - accuracy:  
0.9599  
Epoch 10931/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9589  
Epoch 10932/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0324 - accuracy:  
0.9594  
Epoch 10933/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0326 - accuracy:  
0.9590  
Epoch 10934/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0324 - accuracy:  
0.9592  
Epoch 10935/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0328 - accuracy:  
0.9600  
Epoch 10936/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9602  
Epoch 10937/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0324 - accuracy:  
0.9607  
Epoch 10938/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9598  
Epoch 10939/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9593  
Epoch 10940/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0329 - accuracy:  
0.9601  
Epoch 10941/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0326 - accuracy:  
0.9602  
Epoch 10942/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9589  
Epoch 10943/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9605  
Epoch 10944/100000



2/2 [=====] - 0s 117ms/step - loss: 0.0326 - accuracy:  
0.9598  
Epoch 10945/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0327 - accuracy:  
0.9591  
Epoch 10946/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9603  
Epoch 10947/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0332 - accuracy:  
0.9604  
Epoch 10948/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0326 - accuracy:  
0.9597  
Epoch 10949/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9592  
Epoch 10950/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9600  
Epoch 10951/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9600  
Epoch 10952/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0331 - accuracy:  
0.9597  
Epoch 10953/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9597  
Epoch 10954/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy:  
0.9602  
Epoch 10955/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0324 - accuracy:  
0.9602  
Epoch 10956/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9596  
Epoch 10957/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9598  
Epoch 10958/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0332 - accuracy:  
0.9599  
Epoch 10959/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9593  
Epoch 10960/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9589  
Epoch 10961/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9601  
Epoch 10962/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9605  
Epoch 10963/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9592  
Epoch 10964/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9603  
Epoch 10965/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9599  
Epoch 10966/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9594  
Epoch 10967/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9602  
Epoch 10968/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9583  
Epoch 10969/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9599  
Epoch 10970/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9586  
Epoch 10971/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9591  
Epoch 10972/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9604  
Epoch 10973/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0328 - accuracy:  
0.9598  
Epoch 10974/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9595  
Epoch 10975/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9605  
Epoch 10976/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9589  
Epoch 10977/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9603  
Epoch 10978/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0327 - accuracy:  
0.9588  
Epoch 10979/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9591  
Epoch 10980/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9594  
Epoch 10981/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0328 - accuracy:  
0.9599  
Epoch 10982/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0341 - accuracy:  
0.9591  
Epoch 10983/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy:  
0.9592  
Epoch 10984/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9599  
Epoch 10985/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0336 - accuracy:  
0.9599  
Epoch 10986/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9600  
Epoch 10987/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9595  
Epoch 10988/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0324 - accuracy:  
0.9602  
Epoch 10989/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0326 - accuracy:  
0.9597  
Epoch 10990/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0329 - accuracy:  
0.9601  
Epoch 10991/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0317 - accuracy:  
0.9596  
Epoch 10992/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy: 0.9590  
Epoch 10993/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy: 0.9588  
Epoch 10994/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0323 - accuracy: 0.9583  
Epoch 10995/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy: 0.9593  
Epoch 10996/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0320 - accuracy: 0.9601  
Epoch 10997/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0323 - accuracy: 0.9604  
Epoch 10998/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy: 0.9586  
Epoch 10999/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0326 - accuracy: 0.9605  
Epoch 11000/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0326 - accuracy: 0.9602  
Epoch 11001/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy: 0.9595  
Epoch 11002/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy: 0.9594  
Epoch 11003/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0321 - accuracy: 0.9596  
Epoch 11004/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy: 0.9600  
Epoch 11005/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy: 0.9591  
Epoch 11006/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0325 - accuracy: 0.9596  
Epoch 11007/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy: 0.9603  
Epoch 11008/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0329 - accuracy: 0.9599  
Epoch 11009/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy: 0.9602  
Epoch 11010/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0334 - accuracy: 0.9591  
Epoch 11011/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy: 0.9596  
Epoch 11012/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy: 0.9594  
Epoch 11013/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy: 0.9602  
Epoch 11014/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0338 - accuracy: 0.9597  
Epoch 11015/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy: 0.9601  
Epoch 11016/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy: 0.9596  
Epoch 11017/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy: 0.9597  
Epoch 11018/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0329 - accuracy: 0.9590  
Epoch 11019/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0325 - accuracy: 0.9603  
Epoch 11020/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0319 - accuracy: 0.9593  
Epoch 11021/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0323 - accuracy: 0.9592  
Epoch 11022/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy: 0.9601  
Epoch 11023/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0326 - accuracy: 0.9596  
Epoch 11024/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0325 - accuracy:  
0.9603  
Epoch 11025/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0321 - accuracy:  
0.9594  
Epoch 11026/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9594  
Epoch 11027/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0323 - accuracy:  
0.9600  
Epoch 11028/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9594  
Epoch 11029/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0337 - accuracy:  
0.9597  
Epoch 11030/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9600  
Epoch 11031/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0330 - accuracy:  
0.9599  
Epoch 11032/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0331 - accuracy:  
0.9604  
Epoch 11033/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9594  
Epoch 11034/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0324 - accuracy:  
0.9595  
Epoch 11035/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0329 - accuracy:  
0.9594  
Epoch 11036/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9598  
Epoch 11037/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9584  
Epoch 11038/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9612  
Epoch 11039/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy:  
0.9590  
Epoch 11040/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0351 - accuracy: 0.9597  
Epoch 11041/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0332 - accuracy: 0.9602  
Epoch 11042/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0329 - accuracy: 0.9604  
Epoch 11043/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0335 - accuracy: 0.9600  
Epoch 11044/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0331 - accuracy: 0.9590  
Epoch 11045/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0332 - accuracy: 0.9598  
Epoch 11046/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy: 0.9602  
Epoch 11047/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy: 0.9595  
Epoch 11048/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0338 - accuracy: 0.9595  
Epoch 11049/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy: 0.9597  
Epoch 11050/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0328 - accuracy: 0.9599  
Epoch 11051/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy: 0.9596  
Epoch 11052/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy: 0.9600  
Epoch 11053/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0328 - accuracy: 0.9591  
Epoch 11054/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy: 0.9596  
Epoch 11055/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy: 0.9588  
Epoch 11056/100000

2/2 [=====] - 0s 119ms/step - loss: 0.0323 - accuracy: 0.9597  
Epoch 11057/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0324 - accuracy: 0.9586  
Epoch 11058/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0329 - accuracy: 0.9583  
Epoch 11059/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0324 - accuracy: 0.9597  
Epoch 11060/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy: 0.9594  
Epoch 11061/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0332 - accuracy: 0.9599  
Epoch 11062/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy: 0.9592  
Epoch 11063/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0329 - accuracy: 0.9599  
Epoch 11064/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0325 - accuracy: 0.9591  
Epoch 11065/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0325 - accuracy: 0.9590  
Epoch 11066/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy: 0.9605  
Epoch 11067/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0319 - accuracy: 0.9598  
Epoch 11068/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy: 0.9607  
Epoch 11069/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy: 0.9595  
Epoch 11070/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0322 - accuracy: 0.9597  
Epoch 11071/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0322 - accuracy: 0.9601  
Epoch 11072/100000



2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9589  
Epoch 11073/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy:  
0.9606  
Epoch 11074/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9600  
Epoch 11075/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0324 - accuracy:  
0.9593  
Epoch 11076/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9600  
Epoch 11077/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9602  
Epoch 11078/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy:  
0.9605  
Epoch 11079/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9590  
Epoch 11080/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0320 - accuracy:  
0.9583  
Epoch 11081/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9599  
Epoch 11082/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9590  
Epoch 11083/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9595  
Epoch 11084/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9591  
Epoch 11085/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0352 - accuracy:  
0.9600  
Epoch 11086/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0361 - accuracy:  
0.9600  
Epoch 11087/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0346 - accuracy:  
0.9598  
Epoch 11088/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0335 - accuracy:  
0.9597  
Epoch 11089/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0341 - accuracy:  
0.9588  
Epoch 11090/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0334 - accuracy:  
0.9606  
Epoch 11091/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0329 - accuracy:  
0.9598  
Epoch 11092/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy:  
0.9593  
Epoch 11093/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9597  
Epoch 11094/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9599  
Epoch 11095/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9604  
Epoch 11096/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9604  
Epoch 11097/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9596  
Epoch 11098/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0324 - accuracy:  
0.9598  
Epoch 11099/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0326 - accuracy:  
0.9595  
Epoch 11100/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9596  
Epoch 11101/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9603  
Epoch 11102/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0321 - accuracy:  
0.9597  
Epoch 11103/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9595  
Epoch 11104/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9595  
Epoch 11105/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9593  
Epoch 11106/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0319 - accuracy:  
0.9597  
Epoch 11107/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0319 - accuracy:  
0.9589  
Epoch 11108/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0323 - accuracy:  
0.9604  
Epoch 11109/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0330 - accuracy:  
0.9604  
Epoch 11110/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0322 - accuracy:  
0.9595  
Epoch 11111/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0321 - accuracy:  
0.9588  
Epoch 11112/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0327 - accuracy:  
0.9595  
Epoch 11113/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9598  
Epoch 11114/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0330 - accuracy:  
0.9604  
Epoch 11115/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0323 - accuracy:  
0.9590  
Epoch 11116/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0330 - accuracy:  
0.9596  
Epoch 11117/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9603  
Epoch 11118/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9598  
Epoch 11119/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0330 - accuracy:  
0.9590  
Epoch 11120/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0328 - accuracy:  
0.9600  
Epoch 11121/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0334 - accuracy:  
0.9609  
Epoch 11122/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0334 - accuracy:  
0.9592  
Epoch 11123/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9599  
Epoch 11124/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0329 - accuracy:  
0.9586  
Epoch 11125/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0342 - accuracy:  
0.9608  
Epoch 11126/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0341 - accuracy:  
0.9603  
Epoch 11127/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9590  
Epoch 11128/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy:  
0.9593  
Epoch 11129/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9592  
Epoch 11130/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0326 - accuracy:  
0.9591  
Epoch 11131/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0323 - accuracy:  
0.9603  
Epoch 11132/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy:  
0.9607  
Epoch 11133/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0328 - accuracy:  
0.9605  
Epoch 11134/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0329 - accuracy:  
0.9601  
Epoch 11135/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9602  
Epoch 11136/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy:  
0.9600  
Epoch 11137/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0324 - accuracy:  
0.9591  
Epoch 11138/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9601  
Epoch 11139/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9598  
Epoch 11140/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9599  
Epoch 11141/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy:  
0.9590  
Epoch 11142/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0322 - accuracy:  
0.9600  
Epoch 11143/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9602  
Epoch 11144/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy:  
0.9604  
Epoch 11145/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9596  
Epoch 11146/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9601  
Epoch 11147/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0324 - accuracy:  
0.9602  
Epoch 11148/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9594  
Epoch 11149/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9600  
Epoch 11150/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9596  
Epoch 11151/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9600  
Epoch 11152/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9598  
Epoch 11153/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9591  
Epoch 11154/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9599  
Epoch 11155/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0330 - accuracy:  
0.9596  
Epoch 11156/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9594  
Epoch 11157/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9597  
Epoch 11158/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0329 - accuracy:  
0.9601  
Epoch 11159/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0337 - accuracy:  
0.9597  
Epoch 11160/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9594  
Epoch 11161/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9593  
Epoch 11162/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9599  
Epoch 11163/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9597  
Epoch 11164/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9600  
Epoch 11165/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9593  
Epoch 11166/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9589  
Epoch 11167/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9609  
Epoch 11168/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy: 0.9592  
Epoch 11169/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0324 - accuracy: 0.9602  
Epoch 11170/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0335 - accuracy: 0.9599  
Epoch 11171/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy: 0.9597  
Epoch 11172/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy: 0.9603  
Epoch 11173/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0328 - accuracy: 0.9601  
Epoch 11174/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0320 - accuracy: 0.9592  
Epoch 11175/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9590  
Epoch 11176/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy: 0.9598  
Epoch 11177/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0323 - accuracy: 0.9584  
Epoch 11178/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0326 - accuracy: 0.9603  
Epoch 11179/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy: 0.9595  
Epoch 11180/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0324 - accuracy: 0.9592  
Epoch 11181/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy: 0.9606  
Epoch 11182/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy: 0.9592  
Epoch 11183/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0322 - accuracy: 0.9593  
Epoch 11184/100000

2/2 [=====] - 0s 122ms/step - loss: 0.0328 - accuracy:  
0.9591  
Epoch 11185/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9602  
Epoch 11186/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0328 - accuracy:  
0.9600  
Epoch 11187/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9602  
Epoch 11188/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9593  
Epoch 11189/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9597  
Epoch 11190/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9596  
Epoch 11191/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9598  
Epoch 11192/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0331 - accuracy:  
0.9595  
Epoch 11193/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0319 - accuracy:  
0.9593  
Epoch 11194/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0320 - accuracy:  
0.9594  
Epoch 11195/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9610  
Epoch 11196/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy:  
0.9603  
Epoch 11197/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0320 - accuracy:  
0.9589  
Epoch 11198/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0328 - accuracy:  
0.9605  
Epoch 11199/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0322 - accuracy:  
0.9596  
Epoch 11200/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy: 0.9595  
Epoch 11201/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy: 0.9596  
Epoch 11202/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy: 0.9595  
Epoch 11203/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy: 0.9593  
Epoch 11204/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0327 - accuracy: 0.9607  
Epoch 11205/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy: 0.9604  
Epoch 11206/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0322 - accuracy: 0.9594  
Epoch 11207/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy: 0.9591  
Epoch 11208/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy: 0.9603  
Epoch 11209/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0319 - accuracy: 0.9593  
Epoch 11210/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0319 - accuracy: 0.9592  
Epoch 11211/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy: 0.9593  
Epoch 11212/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy: 0.9593  
Epoch 11213/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy: 0.9587  
Epoch 11214/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy: 0.9604  
Epoch 11215/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy: 0.9607  
Epoch 11216/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0334 - accuracy:  
0.9601  
Epoch 11217/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9596  
Epoch 11218/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9593  
Epoch 11219/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9596  
Epoch 11220/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0323 - accuracy:  
0.9595  
Epoch 11221/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0325 - accuracy:  
0.9590  
Epoch 11222/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0325 - accuracy:  
0.9593  
Epoch 11223/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9600  
Epoch 11224/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9598  
Epoch 11225/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0324 - accuracy:  
0.9589  
Epoch 11226/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9602  
Epoch 11227/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9587  
Epoch 11228/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9601  
Epoch 11229/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0320 - accuracy:  
0.9591  
Epoch 11230/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0329 - accuracy:  
0.9608  
Epoch 11231/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0327 - accuracy:  
0.9593  
Epoch 11232/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0324 - accuracy:  
 0.9602  
 Epoch 11233/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
 0.9591  
 Epoch 11234/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0334 - accuracy:  
 0.9597  
 Epoch 11235/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0333 - accuracy:  
 0.9595  
 Epoch 11236/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
 0.9589  
 Epoch 11237/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0328 - accuracy:  
 0.9605  
 Epoch 11238/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
 0.9591  
 Epoch 11239/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
 0.9592  
 Epoch 11240/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
 0.9602  
 Epoch 11241/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
 0.9592  
 Epoch 11242/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0321 - accuracy:  
 0.9597  
 Epoch 11243/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
 0.9602  
 Epoch 11244/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
 0.9592  
 Epoch 11245/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0329 - accuracy:  
 0.9587  
 Epoch 11246/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
 0.9602  
 Epoch 11247/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0332 - accuracy:  
 0.9603  
 Epoch 11248/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9595  
Epoch 11249/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0330 - accuracy:  
0.9605  
Epoch 11250/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0326 - accuracy:  
0.9595  
Epoch 11251/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9604  
Epoch 11252/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9592  
Epoch 11253/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9596  
Epoch 11254/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy:  
0.9594  
Epoch 11255/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0341 - accuracy:  
0.9597  
Epoch 11256/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0327 - accuracy:  
0.9609  
Epoch 11257/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9594  
Epoch 11258/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0339 - accuracy:  
0.9601  
Epoch 11259/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9601  
Epoch 11260/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9594  
Epoch 11261/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0329 - accuracy:  
0.9596  
Epoch 11262/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0332 - accuracy:  
0.9601  
Epoch 11263/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9596  
Epoch 11264/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy: 0.9594  
Epoch 11265/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy: 0.9587  
Epoch 11266/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0324 - accuracy: 0.9595  
Epoch 11267/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy: 0.9598  
Epoch 11268/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0323 - accuracy: 0.9602  
Epoch 11269/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy: 0.9618  
Epoch 11270/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0330 - accuracy: 0.9587  
Epoch 11271/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy: 0.9604  
Epoch 11272/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy: 0.9593  
Epoch 11273/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0320 - accuracy: 0.9594  
Epoch 11274/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0323 - accuracy: 0.9598  
Epoch 11275/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0322 - accuracy: 0.9593  
Epoch 11276/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0321 - accuracy: 0.9609  
Epoch 11277/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0329 - accuracy: 0.9597  
Epoch 11278/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0318 - accuracy: 0.9594  
Epoch 11279/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0323 - accuracy: 0.9595  
Epoch 11280/100000

2/2 [=====] - 0s 129ms/step - loss: 0.0325 - accuracy:  
0.9598  
Epoch 11281/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0322 - accuracy:  
0.9610  
Epoch 11282/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9591  
Epoch 11283/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9599  
Epoch 11284/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0328 - accuracy:  
0.9596  
Epoch 11285/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9599  
Epoch 11286/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9590  
Epoch 11287/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9594  
Epoch 11288/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy:  
0.9598  
Epoch 11289/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9600  
Epoch 11290/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9588  
Epoch 11291/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9595  
Epoch 11292/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0321 - accuracy:  
0.9591  
Epoch 11293/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9595  
Epoch 11294/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9596  
Epoch 11295/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0341 - accuracy:  
0.9609  
Epoch 11296/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy: 0.9603  
Epoch 11297/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy: 0.9607  
Epoch 11298/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0353 - accuracy: 0.9598  
Epoch 11299/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy: 0.9600  
Epoch 11300/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy: 0.9599  
Epoch 11301/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy: 0.9593  
Epoch 11302/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0328 - accuracy: 0.9599  
Epoch 11303/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy: 0.9594  
Epoch 11304/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy: 0.9600  
Epoch 11305/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy: 0.9597  
Epoch 11306/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy: 0.9589  
Epoch 11307/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy: 0.9604  
Epoch 11308/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy: 0.9595  
Epoch 11309/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy: 0.9603  
Epoch 11310/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy: 0.9594  
Epoch 11311/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0326 - accuracy: 0.9587  
Epoch 11312/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0330 - accuracy:  
0.9605  
Epoch 11313/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9591  
Epoch 11314/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0327 - accuracy:  
0.9594  
Epoch 11315/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9599  
Epoch 11316/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9600  
Epoch 11317/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9601  
Epoch 11318/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9595  
Epoch 11319/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0327 - accuracy:  
0.9598  
Epoch 11320/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0330 - accuracy:  
0.9598  
Epoch 11321/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9589  
Epoch 11322/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9590  
Epoch 11323/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9593  
Epoch 11324/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9597  
Epoch 11325/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9595  
Epoch 11326/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0329 - accuracy:  
0.9590  
Epoch 11327/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0324 - accuracy:  
0.9596  
Epoch 11328/100000



2/2 [=====] - 0s 119ms/step - loss: 0.0325 - accuracy:  
0.9596  
Epoch 11329/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9593  
Epoch 11330/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9589  
Epoch 11331/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0318 - accuracy:  
0.9589  
Epoch 11332/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0321 - accuracy:  
0.9609  
Epoch 11333/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0323 - accuracy:  
0.9593  
Epoch 11334/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0325 - accuracy:  
0.9598  
Epoch 11335/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9596  
Epoch 11336/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9598  
Epoch 11337/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0323 - accuracy:  
0.9597  
Epoch 11338/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9600  
Epoch 11339/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0323 - accuracy:  
0.9608  
Epoch 11340/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9599  
Epoch 11341/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9595  
Epoch 11342/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9593  
Epoch 11343/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9599  
Epoch 11344/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9604  
Epoch 11345/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9599  
Epoch 11346/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9603  
Epoch 11347/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9589  
Epoch 11348/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0331 - accuracy:  
0.9593  
Epoch 11349/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy:  
0.9599  
Epoch 11350/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9598  
Epoch 11351/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9595  
Epoch 11352/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9592  
Epoch 11353/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9592  
Epoch 11354/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9586  
Epoch 11355/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9600  
Epoch 11356/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9586  
Epoch 11357/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy:  
0.9597  
Epoch 11358/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9604  
Epoch 11359/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9593  
Epoch 11360/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy:  
0.9600  
Epoch 11361/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0343 - accuracy:  
0.9604  
Epoch 11362/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0330 - accuracy:  
0.9588  
Epoch 11363/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0332 - accuracy:  
0.9602  
Epoch 11364/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy:  
0.9590  
Epoch 11365/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0349 - accuracy:  
0.9590  
Epoch 11366/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0334 - accuracy:  
0.9587  
Epoch 11367/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy:  
0.9589  
Epoch 11368/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0332 - accuracy:  
0.9589  
Epoch 11369/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0333 - accuracy:  
0.9600  
Epoch 11370/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0334 - accuracy:  
0.9606  
Epoch 11371/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0336 - accuracy:  
0.9590  
Epoch 11372/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0333 - accuracy:  
0.9604  
Epoch 11373/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0327 - accuracy:  
0.9596  
Epoch 11374/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0327 - accuracy:  
0.9600  
Epoch 11375/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0332 - accuracy:  
0.9601  
Epoch 11376/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0334 - accuracy: 0.9604  
Epoch 11377/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0327 - accuracy: 0.9592  
Epoch 11378/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy: 0.9594  
Epoch 11379/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy: 0.9597  
Epoch 11380/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy: 0.9593  
Epoch 11381/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy: 0.9592  
Epoch 11382/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy: 0.9596  
Epoch 11383/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0325 - accuracy: 0.9594  
Epoch 11384/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy: 0.9599  
Epoch 11385/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0322 - accuracy: 0.9599  
Epoch 11386/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy: 0.9604  
Epoch 11387/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0325 - accuracy: 0.9598  
Epoch 11388/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0324 - accuracy: 0.9599  
Epoch 11389/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy: 0.9594  
Epoch 11390/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy: 0.9607  
Epoch 11391/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy: 0.9596  
Epoch 11392/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9592  
Epoch 11393/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9601  
Epoch 11394/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9601  
Epoch 11395/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9600  
Epoch 11396/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9601  
Epoch 11397/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9600  
Epoch 11398/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0326 - accuracy:  
0.9602  
Epoch 11399/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9601  
Epoch 11400/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9601  
Epoch 11401/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9594  
Epoch 11402/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0324 - accuracy:  
0.9597  
Epoch 11403/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0325 - accuracy:  
0.9599  
Epoch 11404/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0336 - accuracy:  
0.9595  
Epoch 11405/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0336 - accuracy:  
0.9603  
Epoch 11406/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0328 - accuracy:  
0.9589  
Epoch 11407/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9589  
Epoch 11408/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy: 0.9597  
Epoch 11409/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0329 - accuracy: 0.9602  
Epoch 11410/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0329 - accuracy: 0.9599  
Epoch 11411/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy: 0.9599  
Epoch 11412/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0319 - accuracy: 0.9592  
Epoch 11413/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy: 0.9586  
Epoch 11414/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy: 0.9593  
Epoch 11415/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy: 0.9605  
Epoch 11416/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0322 - accuracy: 0.9588  
Epoch 11417/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy: 0.9596  
Epoch 11418/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy: 0.9612  
Epoch 11419/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0324 - accuracy: 0.9605  
Epoch 11420/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0322 - accuracy: 0.9601  
Epoch 11421/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0323 - accuracy: 0.9590  
Epoch 11422/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy: 0.9603  
Epoch 11423/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0321 - accuracy: 0.9606  
Epoch 11424/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy: 0.9597  
Epoch 11425/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy: 0.9596  
Epoch 11426/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy: 0.9592  
Epoch 11427/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0323 - accuracy: 0.9595  
Epoch 11428/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0328 - accuracy: 0.9596  
Epoch 11429/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0335 - accuracy: 0.9604  
Epoch 11430/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy: 0.9587  
Epoch 11431/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0330 - accuracy: 0.9595  
Epoch 11432/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy: 0.9598  
Epoch 11433/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy: 0.9596  
Epoch 11434/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy: 0.9590  
Epoch 11435/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy: 0.9604  
Epoch 11436/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0322 - accuracy: 0.9591  
Epoch 11437/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0321 - accuracy: 0.9590  
Epoch 11438/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy: 0.9592  
Epoch 11439/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0323 - accuracy: 0.9596  
Epoch 11440/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9595  
Epoch 11441/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9599  
Epoch 11442/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0315 - accuracy:  
0.9586  
Epoch 11443/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9596  
Epoch 11444/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9599  
Epoch 11445/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9601  
Epoch 11446/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy:  
0.9599  
Epoch 11447/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0327 - accuracy:  
0.9609  
Epoch 11448/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0319 - accuracy:  
0.9607  
Epoch 11449/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9588  
Epoch 11450/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy:  
0.9596  
Epoch 11451/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0321 - accuracy:  
0.9592  
Epoch 11452/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0322 - accuracy:  
0.9593  
Epoch 11453/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9597  
Epoch 11454/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0324 - accuracy:  
0.9603  
Epoch 11455/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9600  
Epoch 11456/100000



2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy:  
0.9586  
Epoch 11457/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0337 - accuracy:  
0.9597  
Epoch 11458/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9593  
Epoch 11459/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9598  
Epoch 11460/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy:  
0.9596  
Epoch 11461/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9591  
Epoch 11462/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0326 - accuracy:  
0.9596  
Epoch 11463/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9597  
Epoch 11464/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9590  
Epoch 11465/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0329 - accuracy:  
0.9598  
Epoch 11466/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0329 - accuracy:  
0.9603  
Epoch 11467/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0322 - accuracy:  
0.9599  
Epoch 11468/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9604  
Epoch 11469/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0329 - accuracy:  
0.9604  
Epoch 11470/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy:  
0.9600  
Epoch 11471/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0329 - accuracy:  
0.9594  
Epoch 11472/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9592  
Epoch 11473/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9593  
Epoch 11474/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9594  
Epoch 11475/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9599  
Epoch 11476/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9595  
Epoch 11477/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9589  
Epoch 11478/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0322 - accuracy:  
0.9595  
Epoch 11479/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9594  
Epoch 11480/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9596  
Epoch 11481/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9594  
Epoch 11482/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9603  
Epoch 11483/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9597  
Epoch 11484/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9593  
Epoch 11485/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0322 - accuracy:  
0.9589  
Epoch 11486/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9596  
Epoch 11487/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0319 - accuracy:  
0.9587  
Epoch 11488/100000

2/2 [=====] - 0s 119ms/step - loss: 0.0321 - accuracy: 0.9597  
Epoch 11489/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy: 0.9600  
Epoch 11490/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy: 0.9599  
Epoch 11491/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy: 0.9592  
Epoch 11492/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0323 - accuracy: 0.9591  
Epoch 11493/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy: 0.9599  
Epoch 11494/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy: 0.9601  
Epoch 11495/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0333 - accuracy: 0.9601  
Epoch 11496/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy: 0.9593  
Epoch 11497/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0334 - accuracy: 0.9611  
Epoch 11498/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0334 - accuracy: 0.9603  
Epoch 11499/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0325 - accuracy: 0.9585  
Epoch 11500/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0325 - accuracy: 0.9599  
Epoch 11501/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy: 0.9598  
Epoch 11502/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy: 0.9593  
Epoch 11503/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy: 0.9597  
Epoch 11504/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy: 0.9592  
Epoch 11505/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0323 - accuracy: 0.9589  
Epoch 11506/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0319 - accuracy: 0.9602  
Epoch 11507/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy: 0.9605  
Epoch 11508/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy: 0.9590  
Epoch 11509/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0323 - accuracy: 0.9596  
Epoch 11510/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0324 - accuracy: 0.9603  
Epoch 11511/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0327 - accuracy: 0.9600  
Epoch 11512/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy: 0.9597  
Epoch 11513/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy: 0.9599  
Epoch 11514/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy: 0.9599  
Epoch 11515/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0324 - accuracy: 0.9605  
Epoch 11516/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy: 0.9588  
Epoch 11517/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy: 0.9602  
Epoch 11518/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0330 - accuracy: 0.9595  
Epoch 11519/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0321 - accuracy: 0.9597  
Epoch 11520/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy: 0.9589  
Epoch 11521/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy: 0.9595  
Epoch 11522/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy: 0.9595  
Epoch 11523/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy: 0.9595  
Epoch 11524/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy: 0.9604  
Epoch 11525/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy: 0.9599  
Epoch 11526/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy: 0.9603  
Epoch 11527/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0323 - accuracy: 0.9599  
Epoch 11528/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0320 - accuracy: 0.9600  
Epoch 11529/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy: 0.9595  
Epoch 11530/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy: 0.9599  
Epoch 11531/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy: 0.9602  
Epoch 11532/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy: 0.9581  
Epoch 11533/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy: 0.9594  
Epoch 11534/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy: 0.9595  
Epoch 11535/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy: 0.9600  
Epoch 11536/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9594  
Epoch 11537/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0325 - accuracy:  
0.9598  
Epoch 11538/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0327 - accuracy:  
0.9598  
Epoch 11539/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0324 - accuracy:  
0.9597  
Epoch 11540/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0320 - accuracy:  
0.9597  
Epoch 11541/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9589  
Epoch 11542/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9594  
Epoch 11543/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9599  
Epoch 11544/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0322 - accuracy:  
0.9598  
Epoch 11545/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0321 - accuracy:  
0.9598  
Epoch 11546/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9597  
Epoch 11547/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9596  
Epoch 11548/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0328 - accuracy:  
0.9603  
Epoch 11549/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0325 - accuracy:  
0.9607  
Epoch 11550/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0341 - accuracy:  
0.9596  
Epoch 11551/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9591  
Epoch 11552/100000

2/2 [=====] - 0s 120ms/step - loss: 0.0352 - accuracy: 0.9603  
Epoch 11553/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0350 - accuracy: 0.9602  
Epoch 11554/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy: 0.9599  
Epoch 11555/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0330 - accuracy: 0.9606  
Epoch 11556/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy: 0.9593  
Epoch 11557/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy: 0.9600  
Epoch 11558/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy: 0.9603  
Epoch 11559/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy: 0.9599  
Epoch 11560/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0344 - accuracy: 0.9586  
Epoch 11561/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy: 0.9598  
Epoch 11562/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy: 0.9585  
Epoch 11563/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy: 0.9607  
Epoch 11564/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy: 0.9593  
Epoch 11565/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy: 0.9600  
Epoch 11566/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy: 0.9600  
Epoch 11567/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy: 0.9599  
Epoch 11568/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0333 - accuracy:  
0.9592  
Epoch 11569/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0335 - accuracy:  
0.9603  
Epoch 11570/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0325 - accuracy:  
0.9598  
Epoch 11571/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9586  
Epoch 11572/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9593  
Epoch 11573/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9604  
Epoch 11574/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy:  
0.9596  
Epoch 11575/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0321 - accuracy:  
0.9602  
Epoch 11576/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9602  
Epoch 11577/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9601  
Epoch 11578/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9589  
Epoch 11579/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy:  
0.9586  
Epoch 11580/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9602  
Epoch 11581/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0319 - accuracy:  
0.9593  
Epoch 11582/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0324 - accuracy:  
0.9592  
Epoch 11583/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9594  
Epoch 11584/100000



2/2 [=====] - 0s 118ms/step - loss: 0.0325 - accuracy: 0.9607  
Epoch 11585/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0324 - accuracy: 0.9592  
Epoch 11586/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0326 - accuracy: 0.9596  
Epoch 11587/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0328 - accuracy: 0.9601  
Epoch 11588/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0332 - accuracy: 0.9592  
Epoch 11589/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0328 - accuracy: 0.9598  
Epoch 11590/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0329 - accuracy: 0.9593  
Epoch 11591/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0339 - accuracy: 0.9593  
Epoch 11592/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0341 - accuracy: 0.9592  
Epoch 11593/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0334 - accuracy: 0.9600  
Epoch 11594/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0325 - accuracy: 0.9599  
Epoch 11595/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy: 0.9601  
Epoch 11596/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy: 0.9600  
Epoch 11597/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy: 0.9590  
Epoch 11598/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0331 - accuracy: 0.9595  
Epoch 11599/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy: 0.9596  
Epoch 11600/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy: 0.9592  
Epoch 11601/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0326 - accuracy: 0.9602  
Epoch 11602/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy: 0.9584  
Epoch 11603/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy: 0.9586  
Epoch 11604/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy: 0.9595  
Epoch 11605/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy: 0.9598  
Epoch 11606/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0323 - accuracy: 0.9602  
Epoch 11607/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy: 0.9603  
Epoch 11608/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0325 - accuracy: 0.9599  
Epoch 11609/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy: 0.9583  
Epoch 11610/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy: 0.9588  
Epoch 11611/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0325 - accuracy: 0.9596  
Epoch 11612/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy: 0.9599  
Epoch 11613/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0327 - accuracy: 0.9607  
Epoch 11614/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy: 0.9591  
Epoch 11615/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy: 0.9599  
Epoch 11616/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9598  
Epoch 11617/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9606  
Epoch 11618/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9593  
Epoch 11619/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0319 - accuracy:  
0.9598  
Epoch 11620/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9596  
Epoch 11621/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9590  
Epoch 11622/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0323 - accuracy:  
0.9603  
Epoch 11623/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0323 - accuracy:  
0.9600  
Epoch 11624/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9597  
Epoch 11625/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9602  
Epoch 11626/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9602  
Epoch 11627/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9597  
Epoch 11628/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9591  
Epoch 11629/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9591  
Epoch 11630/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0318 - accuracy:  
0.9593  
Epoch 11631/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9597  
Epoch 11632/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9601  
Epoch 11633/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9593  
Epoch 11634/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0322 - accuracy:  
0.9598  
Epoch 11635/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9593  
Epoch 11636/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9600  
Epoch 11637/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0327 - accuracy:  
0.9601  
Epoch 11638/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9592  
Epoch 11639/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9601  
Epoch 11640/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9591  
Epoch 11641/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy:  
0.9604  
Epoch 11642/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9593  
Epoch 11643/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9601  
Epoch 11644/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0329 - accuracy:  
0.9597  
Epoch 11645/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9600  
Epoch 11646/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0323 - accuracy:  
0.9599  
Epoch 11647/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0331 - accuracy:  
0.9595  
Epoch 11648/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy: 0.9597  
Epoch 11649/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy: 0.9597  
Epoch 11650/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy: 0.9603  
Epoch 11651/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0315 - accuracy: 0.9601  
Epoch 11652/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0327 - accuracy: 0.9600  
Epoch 11653/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy: 0.9594  
Epoch 11654/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy: 0.9593  
Epoch 11655/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy: 0.9603  
Epoch 11656/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0322 - accuracy: 0.9595  
Epoch 11657/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy: 0.9597  
Epoch 11658/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy: 0.9598  
Epoch 11659/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy: 0.9589  
Epoch 11660/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy: 0.9594  
Epoch 11661/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy: 0.9599  
Epoch 11662/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0322 - accuracy: 0.9595  
Epoch 11663/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy: 0.9602  
Epoch 11664/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy: 0.9592  
Epoch 11665/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy: 0.9607  
Epoch 11666/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9584  
Epoch 11667/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy: 0.9593  
Epoch 11668/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy: 0.9597  
Epoch 11669/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy: 0.9600  
Epoch 11670/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0325 - accuracy: 0.9603  
Epoch 11671/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy: 0.9595  
Epoch 11672/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0326 - accuracy: 0.9596  
Epoch 11673/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0325 - accuracy: 0.9600  
Epoch 11674/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy: 0.9590  
Epoch 11675/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy: 0.9593  
Epoch 11676/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy: 0.9603  
Epoch 11677/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0318 - accuracy: 0.9603  
Epoch 11678/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0317 - accuracy: 0.9596  
Epoch 11679/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy: 0.9595  
Epoch 11680/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9596  
Epoch 11681/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0327 - accuracy:  
0.9602  
Epoch 11682/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9593  
Epoch 11683/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9592  
Epoch 11684/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9591  
Epoch 11685/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9595  
Epoch 11686/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0319 - accuracy:  
0.9590  
Epoch 11687/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9594  
Epoch 11688/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9591  
Epoch 11689/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9597  
Epoch 11690/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9603  
Epoch 11691/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0320 - accuracy:  
0.9597  
Epoch 11692/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9601  
Epoch 11693/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0320 - accuracy:  
0.9601  
Epoch 11694/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0319 - accuracy:  
0.9591  
Epoch 11695/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0324 - accuracy:  
0.9602  
Epoch 11696/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy: 0.9597  
Epoch 11697/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy: 0.9602  
Epoch 11698/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0327 - accuracy: 0.9595  
Epoch 11699/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy: 0.9593  
Epoch 11700/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy: 0.9604  
Epoch 11701/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy: 0.9593  
Epoch 11702/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0328 - accuracy: 0.9586  
Epoch 11703/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy: 0.9595  
Epoch 11704/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy: 0.9593  
Epoch 11705/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy: 0.9609  
Epoch 11706/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0326 - accuracy: 0.9592  
Epoch 11707/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy: 0.9589  
Epoch 11708/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy: 0.9598  
Epoch 11709/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy: 0.9598  
Epoch 11710/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0338 - accuracy: 0.9599  
Epoch 11711/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy: 0.9602  
Epoch 11712/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9596  
Epoch 11713/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0327 - accuracy:  
0.9605  
Epoch 11714/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0329 - accuracy:  
0.9594  
Epoch 11715/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9599  
Epoch 11716/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0322 - accuracy:  
0.9596  
Epoch 11717/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0329 - accuracy:  
0.9592  
Epoch 11718/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0328 - accuracy:  
0.9596  
Epoch 11719/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9598  
Epoch 11720/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0328 - accuracy:  
0.9597  
Epoch 11721/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9596  
Epoch 11722/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9599  
Epoch 11723/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0337 - accuracy:  
0.9590  
Epoch 11724/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9591  
Epoch 11725/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9598  
Epoch 11726/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9590  
Epoch 11727/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9596  
Epoch 11728/100000

2/2 [=====] - 0s 119ms/step - loss: 0.0326 - accuracy: 0.9603  
Epoch 11729/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0328 - accuracy: 0.9592  
Epoch 11730/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy: 0.9610  
Epoch 11731/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy: 0.9588  
Epoch 11732/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0326 - accuracy: 0.9598  
Epoch 11733/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0332 - accuracy: 0.9606  
Epoch 11734/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy: 0.9602  
Epoch 11735/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy: 0.9593  
Epoch 11736/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy: 0.9597  
Epoch 11737/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0329 - accuracy: 0.9599  
Epoch 11738/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0320 - accuracy: 0.9598  
Epoch 11739/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0322 - accuracy: 0.9594  
Epoch 11740/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy: 0.9598  
Epoch 11741/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy: 0.9590  
Epoch 11742/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy: 0.9604  
Epoch 11743/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0328 - accuracy: 0.9597  
Epoch 11744/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9599  
Epoch 11745/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0328 - accuracy:  
0.9611  
Epoch 11746/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0335 - accuracy:  
0.9609  
Epoch 11747/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy:  
0.9603  
Epoch 11748/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9594  
Epoch 11749/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9583  
Epoch 11750/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9591  
Epoch 11751/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0326 - accuracy:  
0.9590  
Epoch 11752/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9589  
Epoch 11753/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9598  
Epoch 11754/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9599  
Epoch 11755/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9593  
Epoch 11756/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy:  
0.9601  
Epoch 11757/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9595  
Epoch 11758/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0323 - accuracy:  
0.9586  
Epoch 11759/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9595  
Epoch 11760/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy: 0.9601  
Epoch 11761/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy: 0.9597  
Epoch 11762/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy: 0.9591  
Epoch 11763/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0328 - accuracy: 0.9595  
Epoch 11764/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy: 0.9592  
Epoch 11765/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0323 - accuracy: 0.9606  
Epoch 11766/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy: 0.9593  
Epoch 11767/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy: 0.9599  
Epoch 11768/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy: 0.9589  
Epoch 11769/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy: 0.9600  
Epoch 11770/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy: 0.9605  
Epoch 11771/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy: 0.9587  
Epoch 11772/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0330 - accuracy: 0.9597  
Epoch 11773/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0329 - accuracy: 0.9594  
Epoch 11774/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0323 - accuracy: 0.9598  
Epoch 11775/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy: 0.9597  
Epoch 11776/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9597  
Epoch 11777/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9592  
Epoch 11778/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9608  
Epoch 11779/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9594  
Epoch 11780/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0321 - accuracy:  
0.9599  
Epoch 11781/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9592  
Epoch 11782/100000  
2/2 [=====] - 0s 129ms/step - loss: 0.0326 - accuracy:  
0.9603  
Epoch 11783/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0324 - accuracy:  
0.9595  
Epoch 11784/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9590  
Epoch 11785/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0329 - accuracy:  
0.9597  
Epoch 11786/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9602  
Epoch 11787/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy:  
0.9596  
Epoch 11788/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9596  
Epoch 11789/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0324 - accuracy:  
0.9598  
Epoch 11790/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9590  
Epoch 11791/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0324 - accuracy:  
0.9592  
Epoch 11792/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0321 - accuracy:  
0.9594  
Epoch 11793/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9597  
Epoch 11794/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9603  
Epoch 11795/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9601  
Epoch 11796/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9597  
Epoch 11797/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0324 - accuracy:  
0.9604  
Epoch 11798/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9600  
Epoch 11799/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9593  
Epoch 11800/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9599  
Epoch 11801/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0322 - accuracy:  
0.9589  
Epoch 11802/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9591  
Epoch 11803/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0331 - accuracy:  
0.9593  
Epoch 11804/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0327 - accuracy:  
0.9600  
Epoch 11805/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9602  
Epoch 11806/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9596  
Epoch 11807/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9604  
Epoch 11808/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9600  
Epoch 11809/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9599  
Epoch 11810/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy:  
0.9599  
Epoch 11811/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9604  
Epoch 11812/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9592  
Epoch 11813/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9591  
Epoch 11814/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9593  
Epoch 11815/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy:  
0.9595  
Epoch 11816/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0344 - accuracy:  
0.9592  
Epoch 11817/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0339 - accuracy:  
0.9605  
Epoch 11818/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0334 - accuracy:  
0.9603  
Epoch 11819/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9592  
Epoch 11820/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0344 - accuracy:  
0.9598  
Epoch 11821/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0334 - accuracy:  
0.9603  
Epoch 11822/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0330 - accuracy:  
0.9597  
Epoch 11823/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9601  
Epoch 11824/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9597  
Epoch 11825/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0328 - accuracy:  
0.9597  
Epoch 11826/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9601  
Epoch 11827/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0337 - accuracy:  
0.9597  
Epoch 11828/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0333 - accuracy:  
0.9614  
Epoch 11829/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0331 - accuracy:  
0.9595  
Epoch 11830/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9589  
Epoch 11831/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9596  
Epoch 11832/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9591  
Epoch 11833/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0322 - accuracy:  
0.9589  
Epoch 11834/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0328 - accuracy:  
0.9598  
Epoch 11835/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9600  
Epoch 11836/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy:  
0.9586  
Epoch 11837/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0326 - accuracy:  
0.9592  
Epoch 11838/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9599  
Epoch 11839/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0320 - accuracy:  
0.9599  
Epoch 11840/100000



2/2 [=====] - 0s 117ms/step - loss: 0.0321 - accuracy:  
0.9596  
Epoch 11841/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0320 - accuracy:  
0.9596  
Epoch 11842/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9599  
Epoch 11843/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0323 - accuracy:  
0.9595  
Epoch 11844/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9592  
Epoch 11845/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9596  
Epoch 11846/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9598  
Epoch 11847/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9600  
Epoch 11848/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0323 - accuracy:  
0.9586  
Epoch 11849/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0319 - accuracy:  
0.9602  
Epoch 11850/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9592  
Epoch 11851/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9583  
Epoch 11852/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9587  
Epoch 11853/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0323 - accuracy:  
0.9593  
Epoch 11854/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0325 - accuracy:  
0.9597  
Epoch 11855/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0321 - accuracy:  
0.9589  
Epoch 11856/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9601  
Epoch 11857/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9594  
Epoch 11858/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9596  
Epoch 11859/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9593  
Epoch 11860/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9599  
Epoch 11861/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9599  
Epoch 11862/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9609  
Epoch 11863/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9589  
Epoch 11864/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9596  
Epoch 11865/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9597  
Epoch 11866/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy:  
0.9603  
Epoch 11867/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0317 - accuracy:  
0.9585  
Epoch 11868/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0323 - accuracy:  
0.9607  
Epoch 11869/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9601  
Epoch 11870/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0321 - accuracy:  
0.9601  
Epoch 11871/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9589  
Epoch 11872/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0322 - accuracy:  
0.9600  
Epoch 11873/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy:  
0.9593  
Epoch 11874/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9605  
Epoch 11875/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0322 - accuracy:  
0.9596  
Epoch 11876/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0327 - accuracy:  
0.9594  
Epoch 11877/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9590  
Epoch 11878/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0320 - accuracy:  
0.9593  
Epoch 11879/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9602  
Epoch 11880/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9591  
Epoch 11881/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9600  
Epoch 11882/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9603  
Epoch 11883/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9590  
Epoch 11884/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0328 - accuracy:  
0.9599  
Epoch 11885/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9594  
Epoch 11886/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0336 - accuracy:  
0.9587  
Epoch 11887/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0344 - accuracy:  
0.9607  
Epoch 11888/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9595  
Epoch 11889/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0345 - accuracy:  
0.9596  
Epoch 11890/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0359 - accuracy:  
0.9600  
Epoch 11891/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0351 - accuracy:  
0.9605  
Epoch 11892/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9600  
Epoch 11893/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9601  
Epoch 11894/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy:  
0.9611  
Epoch 11895/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9601  
Epoch 11896/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy:  
0.9599  
Epoch 11897/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9598  
Epoch 11898/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0332 - accuracy:  
0.9609  
Epoch 11899/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0332 - accuracy:  
0.9599  
Epoch 11900/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0334 - accuracy:  
0.9595  
Epoch 11901/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9600  
Epoch 11902/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9603  
Epoch 11903/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9590  
Epoch 11904/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy: 0.9590  
Epoch 11905/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0320 - accuracy: 0.9589  
Epoch 11906/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy: 0.9596  
Epoch 11907/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy: 0.9599  
Epoch 11908/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy: 0.9596  
Epoch 11909/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0320 - accuracy: 0.9589  
Epoch 11910/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0319 - accuracy: 0.9590  
Epoch 11911/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy: 0.9598  
Epoch 11912/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy: 0.9593  
Epoch 11913/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy: 0.9605  
Epoch 11914/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy: 0.9595  
Epoch 11915/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0324 - accuracy: 0.9604  
Epoch 11916/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9596  
Epoch 11917/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0320 - accuracy: 0.9596  
Epoch 11918/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy: 0.9599  
Epoch 11919/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0319 - accuracy: 0.9594  
Epoch 11920/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9591  
Epoch 11921/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9607  
Epoch 11922/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9599  
Epoch 11923/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0320 - accuracy:  
0.9600  
Epoch 11924/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0314 - accuracy:  
0.9592  
Epoch 11925/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0324 - accuracy:  
0.9602  
Epoch 11926/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9601  
Epoch 11927/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0321 - accuracy:  
0.9597  
Epoch 11928/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0332 - accuracy:  
0.9606  
Epoch 11929/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9605  
Epoch 11930/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0343 - accuracy:  
0.9598  
Epoch 11931/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0335 - accuracy:  
0.9601  
Epoch 11932/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0327 - accuracy:  
0.9606  
Epoch 11933/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9583  
Epoch 11934/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9609  
Epoch 11935/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0328 - accuracy:  
0.9599  
Epoch 11936/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9603  
Epoch 11937/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9591  
Epoch 11938/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9592  
Epoch 11939/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0326 - accuracy:  
0.9596  
Epoch 11940/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9587  
Epoch 11941/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9598  
Epoch 11942/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9591  
Epoch 11943/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9606  
Epoch 11944/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9595  
Epoch 11945/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9601  
Epoch 11946/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0321 - accuracy:  
0.9598  
Epoch 11947/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9593  
Epoch 11948/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9593  
Epoch 11949/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9599  
Epoch 11950/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0319 - accuracy:  
0.9602  
Epoch 11951/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0319 - accuracy:  
0.9599  
Epoch 11952/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0323 - accuracy:  
0.9601  
Epoch 11953/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0325 - accuracy:  
0.9598  
Epoch 11954/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9607  
Epoch 11955/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9596  
Epoch 11956/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0327 - accuracy:  
0.9593  
Epoch 11957/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0335 - accuracy:  
0.9606  
Epoch 11958/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0334 - accuracy:  
0.9594  
Epoch 11959/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0323 - accuracy:  
0.9600  
Epoch 11960/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy:  
0.9592  
Epoch 11961/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0328 - accuracy:  
0.9592  
Epoch 11962/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0323 - accuracy:  
0.9596  
Epoch 11963/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0334 - accuracy:  
0.9593  
Epoch 11964/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0330 - accuracy:  
0.9592  
Epoch 11965/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9600  
Epoch 11966/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0325 - accuracy:  
0.9598  
Epoch 11967/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0325 - accuracy:  
0.9594  
Epoch 11968/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy: 0.9609  
Epoch 11969/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0325 - accuracy: 0.9594  
Epoch 11970/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0322 - accuracy: 0.9597  
Epoch 11971/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy: 0.9587  
Epoch 11972/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0317 - accuracy: 0.9588  
Epoch 11973/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy: 0.9594  
Epoch 11974/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy: 0.9602  
Epoch 11975/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0330 - accuracy: 0.9596  
Epoch 11976/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0323 - accuracy: 0.9590  
Epoch 11977/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy: 0.9604  
Epoch 11978/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy: 0.9590  
Epoch 11979/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0335 - accuracy: 0.9597  
Epoch 11980/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0331 - accuracy: 0.9599  
Epoch 11981/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy: 0.9590  
Epoch 11982/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0327 - accuracy: 0.9593  
Epoch 11983/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0319 - accuracy: 0.9594  
Epoch 11984/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9586  
Epoch 11985/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9602  
Epoch 11986/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9595  
Epoch 11987/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy:  
0.9592  
Epoch 11988/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0333 - accuracy:  
0.9597  
Epoch 11989/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9607  
Epoch 11990/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0321 - accuracy:  
0.9596  
Epoch 11991/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0324 - accuracy:  
0.9596  
Epoch 11992/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9598  
Epoch 11993/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9603  
Epoch 11994/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9605  
Epoch 11995/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0322 - accuracy:  
0.9598  
Epoch 11996/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0321 - accuracy:  
0.9592  
Epoch 11997/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0319 - accuracy:  
0.9603  
Epoch 11998/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9603  
Epoch 11999/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9605  
Epoch 12000/100000

2/2 [=====] - 0s 119ms/step - loss: 0.0322 - accuracy:  
0.9600  
Epoch 12001/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9601  
Epoch 12002/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0316 - accuracy:  
0.9591  
Epoch 12003/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9598  
Epoch 12004/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0323 - accuracy:  
0.9603  
Epoch 12005/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0325 - accuracy:  
0.9593  
Epoch 12006/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0333 - accuracy:  
0.9600  
Epoch 12007/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9592  
Epoch 12008/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy:  
0.9599  
Epoch 12009/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0338 - accuracy:  
0.9601  
Epoch 12010/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0335 - accuracy:  
0.9597  
Epoch 12011/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0363 - accuracy:  
0.9588  
Epoch 12012/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0389 - accuracy:  
0.9594  
Epoch 12013/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0385 - accuracy:  
0.9602  
Epoch 12014/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy:  
0.9592  
Epoch 12015/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0351 - accuracy:  
0.9590  
Epoch 12016/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy: 0.9588  
Epoch 12017/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy: 0.9594  
Epoch 12018/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0348 - accuracy: 0.9592  
Epoch 12019/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0350 - accuracy: 0.9599  
Epoch 12020/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0347 - accuracy: 0.9593  
Epoch 12021/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0345 - accuracy: 0.9590  
Epoch 12022/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0340 - accuracy: 0.9596  
Epoch 12023/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0330 - accuracy: 0.9594  
Epoch 12024/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy: 0.9599  
Epoch 12025/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0330 - accuracy: 0.9594  
Epoch 12026/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy: 0.9612  
Epoch 12027/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy: 0.9597  
Epoch 12028/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy: 0.9595  
Epoch 12029/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy: 0.9597  
Epoch 12030/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0327 - accuracy: 0.9593  
Epoch 12031/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0327 - accuracy: 0.9595  
Epoch 12032/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy: 0.9598  
Epoch 12033/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy: 0.9604  
Epoch 12034/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy: 0.9599  
Epoch 12035/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0325 - accuracy: 0.9595  
Epoch 12036/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy: 0.9595  
Epoch 12037/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy: 0.9601  
Epoch 12038/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy: 0.9599  
Epoch 12039/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0326 - accuracy: 0.9598  
Epoch 12040/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0323 - accuracy: 0.9599  
Epoch 12041/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy: 0.9590  
Epoch 12042/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0319 - accuracy: 0.9597  
Epoch 12043/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0319 - accuracy: 0.9595  
Epoch 12044/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0317 - accuracy: 0.9593  
Epoch 12045/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0320 - accuracy: 0.9602  
Epoch 12046/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy: 0.9590  
Epoch 12047/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0324 - accuracy: 0.9595  
Epoch 12048/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9600  
Epoch 12049/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0321 - accuracy:  
0.9597  
Epoch 12050/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9591  
Epoch 12051/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9592  
Epoch 12052/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9604  
Epoch 12053/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9595  
Epoch 12054/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0325 - accuracy:  
0.9597  
Epoch 12055/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9598  
Epoch 12056/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9607  
Epoch 12057/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9595  
Epoch 12058/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9595  
Epoch 12059/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9595  
Epoch 12060/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9591  
Epoch 12061/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9606  
Epoch 12062/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0318 - accuracy:  
0.9592  
Epoch 12063/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0327 - accuracy:  
0.9602  
Epoch 12064/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9601  
Epoch 12065/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0320 - accuracy:  
0.9587  
Epoch 12066/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy:  
0.9603  
Epoch 12067/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9605  
Epoch 12068/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9598  
Epoch 12069/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9586  
Epoch 12070/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0318 - accuracy:  
0.9590  
Epoch 12071/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9595  
Epoch 12072/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9594  
Epoch 12073/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9600  
Epoch 12074/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9591  
Epoch 12075/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9593  
Epoch 12076/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9593  
Epoch 12077/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9607  
Epoch 12078/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0324 - accuracy:  
0.9604  
Epoch 12079/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9602  
Epoch 12080/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9592  
Epoch 12081/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0317 - accuracy:  
0.9592  
Epoch 12082/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9600  
Epoch 12083/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0320 - accuracy:  
0.9592  
Epoch 12084/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9594  
Epoch 12085/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0317 - accuracy:  
0.9594  
Epoch 12086/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy:  
0.9603  
Epoch 12087/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0320 - accuracy:  
0.9607  
Epoch 12088/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9600  
Epoch 12089/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9591  
Epoch 12090/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9597  
Epoch 12091/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0322 - accuracy:  
0.9599  
Epoch 12092/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0317 - accuracy:  
0.9589  
Epoch 12093/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0322 - accuracy:  
0.9602  
Epoch 12094/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9604  
Epoch 12095/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9602  
Epoch 12096/100000



2/2 [=====] - 0s 119ms/step - loss: 0.0315 - accuracy: 0.9597  
Epoch 12097/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0319 - accuracy: 0.9590  
Epoch 12098/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy: 0.9603  
Epoch 12099/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy: 0.9589  
Epoch 12100/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy: 0.9591  
Epoch 12101/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0320 - accuracy: 0.9586  
Epoch 12102/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0320 - accuracy: 0.9608  
Epoch 12103/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy: 0.9591  
Epoch 12104/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy: 0.9596  
Epoch 12105/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy: 0.9589  
Epoch 12106/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy: 0.9604  
Epoch 12107/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0325 - accuracy: 0.9592  
Epoch 12108/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy: 0.9594  
Epoch 12109/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy: 0.9599  
Epoch 12110/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy: 0.9602  
Epoch 12111/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy: 0.9596  
Epoch 12112/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0322 - accuracy:  
0.9590  
Epoch 12113/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0326 - accuracy:  
0.9599  
Epoch 12114/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9608  
Epoch 12115/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0322 - accuracy:  
0.9593  
Epoch 12116/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0320 - accuracy:  
0.9590  
Epoch 12117/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0328 - accuracy:  
0.9604  
Epoch 12118/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9599  
Epoch 12119/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy:  
0.9601  
Epoch 12120/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9591  
Epoch 12121/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0322 - accuracy:  
0.9598  
Epoch 12122/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0321 - accuracy:  
0.9602  
Epoch 12123/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9594  
Epoch 12124/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9603  
Epoch 12125/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9595  
Epoch 12126/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0320 - accuracy:  
0.9605  
Epoch 12127/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0318 - accuracy:  
0.9595  
Epoch 12128/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0314 - accuracy:  
0.9592  
Epoch 12129/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9593  
Epoch 12130/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9597  
Epoch 12131/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9595  
Epoch 12132/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0322 - accuracy:  
0.9593  
Epoch 12133/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9591  
Epoch 12134/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9602  
Epoch 12135/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9594  
Epoch 12136/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9597  
Epoch 12137/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0325 - accuracy:  
0.9597  
Epoch 12138/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0325 - accuracy:  
0.9606  
Epoch 12139/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9605  
Epoch 12140/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0352 - accuracy:  
0.9594  
Epoch 12141/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0327 - accuracy:  
0.9590  
Epoch 12142/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0337 - accuracy:  
0.9606  
Epoch 12143/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0337 - accuracy:  
0.9600  
Epoch 12144/100000

2/2 [=====] - 0s 119ms/step - loss: 0.0333 - accuracy:  
0.9600  
Epoch 12145/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0324 - accuracy:  
0.9592  
Epoch 12146/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0323 - accuracy:  
0.9594  
Epoch 12147/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9598  
Epoch 12148/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9598  
Epoch 12149/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9594  
Epoch 12150/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0323 - accuracy:  
0.9588  
Epoch 12151/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9591  
Epoch 12152/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9585  
Epoch 12153/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9601  
Epoch 12154/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9599  
Epoch 12155/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9598  
Epoch 12156/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0322 - accuracy:  
0.9601  
Epoch 12157/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9599  
Epoch 12158/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0326 - accuracy:  
0.9596  
Epoch 12159/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9593  
Epoch 12160/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9602  
Epoch 12161/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0324 - accuracy:  
0.9593  
Epoch 12162/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9595  
Epoch 12163/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0320 - accuracy:  
0.9591  
Epoch 12164/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9592  
Epoch 12165/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy:  
0.9605  
Epoch 12166/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9596  
Epoch 12167/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0334 - accuracy:  
0.9596  
Epoch 12168/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9598  
Epoch 12169/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9602  
Epoch 12170/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0347 - accuracy:  
0.9594  
Epoch 12171/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9592  
Epoch 12172/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9610  
Epoch 12173/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0326 - accuracy:  
0.9601  
Epoch 12174/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0332 - accuracy:  
0.9604  
Epoch 12175/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9593  
Epoch 12176/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9589  
Epoch 12177/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0332 - accuracy:  
0.9598  
Epoch 12178/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0325 - accuracy:  
0.9604  
Epoch 12179/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0327 - accuracy:  
0.9602  
Epoch 12180/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9582  
Epoch 12181/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9600  
Epoch 12182/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy:  
0.9601  
Epoch 12183/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0323 - accuracy:  
0.9599  
Epoch 12184/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9599  
Epoch 12185/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0321 - accuracy:  
0.9598  
Epoch 12186/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9591  
Epoch 12187/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9601  
Epoch 12188/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9598  
Epoch 12189/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0323 - accuracy:  
0.9598  
Epoch 12190/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0322 - accuracy:  
0.9603  
Epoch 12191/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0316 - accuracy:  
0.9590  
Epoch 12192/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy: 0.9587  
Epoch 12193/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0318 - accuracy: 0.9605  
Epoch 12194/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy: 0.9602  
Epoch 12195/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0316 - accuracy: 0.9606  
Epoch 12196/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy: 0.9590  
Epoch 12197/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy: 0.9591  
Epoch 12198/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy: 0.9608  
Epoch 12199/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0332 - accuracy: 0.9605  
Epoch 12200/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy: 0.9590  
Epoch 12201/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy: 0.9600  
Epoch 12202/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy: 0.9598  
Epoch 12203/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy: 0.9599  
Epoch 12204/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0328 - accuracy: 0.9605  
Epoch 12205/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0323 - accuracy: 0.9595  
Epoch 12206/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0326 - accuracy: 0.9595  
Epoch 12207/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0324 - accuracy: 0.9594  
Epoch 12208/100000

2/2 [=====] - 0s 125ms/step - loss: 0.0319 - accuracy: 0.9600  
Epoch 12209/100000  
2/2 [=====] - 0s 133ms/step - loss: 0.0327 - accuracy: 0.9595  
Epoch 12210/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0321 - accuracy: 0.9591  
Epoch 12211/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0326 - accuracy: 0.9604  
Epoch 12212/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0326 - accuracy: 0.9601  
Epoch 12213/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy: 0.9601  
Epoch 12214/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0328 - accuracy: 0.9591  
Epoch 12215/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy: 0.9595  
Epoch 12216/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy: 0.9591  
Epoch 12217/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0324 - accuracy: 0.9601  
Epoch 12218/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy: 0.9596  
Epoch 12219/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy: 0.9590  
Epoch 12220/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0335 - accuracy: 0.9610  
Epoch 12221/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0335 - accuracy: 0.9597  
Epoch 12222/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0328 - accuracy: 0.9605  
Epoch 12223/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy: 0.9599  
Epoch 12224/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy: 0.9595  
Epoch 12225/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0324 - accuracy: 0.9600  
Epoch 12226/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy: 0.9591  
Epoch 12227/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy: 0.9602  
Epoch 12228/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy: 0.9596  
Epoch 12229/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy: 0.9597  
Epoch 12230/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0318 - accuracy: 0.9587  
Epoch 12231/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0322 - accuracy: 0.9596  
Epoch 12232/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0321 - accuracy: 0.9602  
Epoch 12233/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy: 0.9599  
Epoch 12234/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy: 0.9597  
Epoch 12235/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy: 0.9599  
Epoch 12236/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0319 - accuracy: 0.9597  
Epoch 12237/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0318 - accuracy: 0.9602  
Epoch 12238/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy: 0.9600  
Epoch 12239/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy: 0.9595  
Epoch 12240/100000

2/2 [=====] - 0s 119ms/step - loss: 0.0319 - accuracy:  
0.9590  
Epoch 12241/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9599  
Epoch 12242/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9604  
Epoch 12243/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9598  
Epoch 12244/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0321 - accuracy:  
0.9592  
Epoch 12245/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0325 - accuracy:  
0.9603  
Epoch 12246/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9597  
Epoch 12247/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9600  
Epoch 12248/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9596  
Epoch 12249/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0318 - accuracy:  
0.9592  
Epoch 12250/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9596  
Epoch 12251/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9594  
Epoch 12252/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0327 - accuracy:  
0.9588  
Epoch 12253/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0328 - accuracy:  
0.9594  
Epoch 12254/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0322 - accuracy:  
0.9595  
Epoch 12255/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9603  
Epoch 12256/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0325 - accuracy:  
0.9598  
Epoch 12257/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9597  
Epoch 12258/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9599  
Epoch 12259/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0321 - accuracy:  
0.9594  
Epoch 12260/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9603  
Epoch 12261/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy:  
0.9592  
Epoch 12262/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9597  
Epoch 12263/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0320 - accuracy:  
0.9592  
Epoch 12264/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9595  
Epoch 12265/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9603  
Epoch 12266/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9589  
Epoch 12267/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0318 - accuracy:  
0.9594  
Epoch 12268/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9594  
Epoch 12269/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9603  
Epoch 12270/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9605  
Epoch 12271/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0323 - accuracy:  
0.9601  
Epoch 12272/100000

2/2 [=====] - 0s 120ms/step - loss: 0.0322 - accuracy:  
0.9595  
Epoch 12273/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9597  
Epoch 12274/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9593  
Epoch 12275/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0321 - accuracy:  
0.9602  
Epoch 12276/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9601  
Epoch 12277/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9592  
Epoch 12278/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9603  
Epoch 12279/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0322 - accuracy:  
0.9599  
Epoch 12280/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0330 - accuracy:  
0.9597  
Epoch 12281/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy:  
0.9606  
Epoch 12282/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0336 - accuracy:  
0.9599  
Epoch 12283/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0335 - accuracy:  
0.9593  
Epoch 12284/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy:  
0.9601  
Epoch 12285/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9592  
Epoch 12286/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0334 - accuracy:  
0.9596  
Epoch 12287/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy:  
0.9599  
Epoch 12288/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0340 - accuracy: 0.9604  
Epoch 12289/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy: 0.9593  
Epoch 12290/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0329 - accuracy: 0.9596  
Epoch 12291/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy: 0.9603  
Epoch 12292/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy: 0.9596  
Epoch 12293/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy: 0.9587  
Epoch 12294/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy: 0.9598  
Epoch 12295/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0324 - accuracy: 0.9595  
Epoch 12296/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy: 0.9607  
Epoch 12297/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy: 0.9587  
Epoch 12298/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy: 0.9595  
Epoch 12299/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0319 - accuracy: 0.9596  
Epoch 12300/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy: 0.9593  
Epoch 12301/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy: 0.9593  
Epoch 12302/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0335 - accuracy: 0.9594  
Epoch 12303/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0327 - accuracy: 0.9597  
Epoch 12304/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy: 0.9602  
Epoch 12305/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy: 0.9596  
Epoch 12306/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy: 0.9595  
Epoch 12307/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0323 - accuracy: 0.9595  
Epoch 12308/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy: 0.9596  
Epoch 12309/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0322 - accuracy: 0.9603  
Epoch 12310/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0332 - accuracy: 0.9602  
Epoch 12311/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0325 - accuracy: 0.9595  
Epoch 12312/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy: 0.9597  
Epoch 12313/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy: 0.9599  
Epoch 12314/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0321 - accuracy: 0.9601  
Epoch 12315/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0321 - accuracy: 0.9592  
Epoch 12316/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy: 0.9597  
Epoch 12317/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy: 0.9604  
Epoch 12318/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0320 - accuracy: 0.9603  
Epoch 12319/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy: 0.9600  
Epoch 12320/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9594  
Epoch 12321/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9596  
Epoch 12322/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9588  
Epoch 12323/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy:  
0.9598  
Epoch 12324/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0326 - accuracy:  
0.9597  
Epoch 12325/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9598  
Epoch 12326/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0321 - accuracy:  
0.9597  
Epoch 12327/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0317 - accuracy:  
0.9592  
Epoch 12328/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9592  
Epoch 12329/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9603  
Epoch 12330/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9596  
Epoch 12331/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9599  
Epoch 12332/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0320 - accuracy:  
0.9602  
Epoch 12333/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0319 - accuracy:  
0.9596  
Epoch 12334/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9601  
Epoch 12335/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0317 - accuracy:  
0.9597  
Epoch 12336/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9598  
Epoch 12337/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0317 - accuracy:  
0.9595  
Epoch 12338/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0321 - accuracy:  
0.9596  
Epoch 12339/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9598  
Epoch 12340/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0320 - accuracy:  
0.9602  
Epoch 12341/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9600  
Epoch 12342/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9600  
Epoch 12343/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9596  
Epoch 12344/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0318 - accuracy:  
0.9598  
Epoch 12345/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9592  
Epoch 12346/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9605  
Epoch 12347/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9596  
Epoch 12348/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0325 - accuracy:  
0.9598  
Epoch 12349/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0332 - accuracy:  
0.9599  
Epoch 12350/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9591  
Epoch 12351/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0329 - accuracy:  
0.9597  
Epoch 12352/100000



2/2 [=====] - 0s 118ms/step - loss: 0.0327 - accuracy:  
0.9589  
Epoch 12353/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9597  
Epoch 12354/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9597  
Epoch 12355/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0320 - accuracy:  
0.9587  
Epoch 12356/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0327 - accuracy:  
0.9595  
Epoch 12357/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9595  
Epoch 12358/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9601  
Epoch 12359/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9588  
Epoch 12360/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0318 - accuracy:  
0.9585  
Epoch 12361/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0320 - accuracy:  
0.9599  
Epoch 12362/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9606  
Epoch 12363/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy:  
0.9593  
Epoch 12364/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0326 - accuracy:  
0.9601  
Epoch 12365/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9604  
Epoch 12366/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0339 - accuracy:  
0.9594  
Epoch 12367/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9601  
Epoch 12368/100000

2/2 [=====] - 0s 121ms/step - loss: 0.0327 - accuracy:  
0.9595  
Epoch 12369/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9586  
Epoch 12370/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy:  
0.9602  
Epoch 12371/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0331 - accuracy:  
0.9607  
Epoch 12372/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0335 - accuracy:  
0.9582  
Epoch 12373/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0331 - accuracy:  
0.9594  
Epoch 12374/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy:  
0.9597  
Epoch 12375/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0329 - accuracy:  
0.9594  
Epoch 12376/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0327 - accuracy:  
0.9603  
Epoch 12377/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy:  
0.9594  
Epoch 12378/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9592  
Epoch 12379/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0334 - accuracy:  
0.9591  
Epoch 12380/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0330 - accuracy:  
0.9587  
Epoch 12381/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9597  
Epoch 12382/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0326 - accuracy:  
0.9589  
Epoch 12383/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0324 - accuracy:  
0.9593  
Epoch 12384/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9598  
Epoch 12385/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9603  
Epoch 12386/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9600  
Epoch 12387/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0321 - accuracy:  
0.9593  
Epoch 12388/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0323 - accuracy:  
0.9594  
Epoch 12389/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9594  
Epoch 12390/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy:  
0.9588  
Epoch 12391/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0333 - accuracy:  
0.9596  
Epoch 12392/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9606  
Epoch 12393/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9588  
Epoch 12394/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0338 - accuracy:  
0.9614  
Epoch 12395/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0322 - accuracy:  
0.9599  
Epoch 12396/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0337 - accuracy:  
0.9603  
Epoch 12397/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0361 - accuracy:  
0.9606  
Epoch 12398/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0345 - accuracy:  
0.9602  
Epoch 12399/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0332 - accuracy:  
0.9588  
Epoch 12400/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy: 0.9607  
Epoch 12401/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0340 - accuracy: 0.9601  
Epoch 12402/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0346 - accuracy: 0.9600  
Epoch 12403/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0341 - accuracy: 0.9599  
Epoch 12404/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy: 0.9606  
Epoch 12405/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0331 - accuracy: 0.9592  
Epoch 12406/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0336 - accuracy: 0.9593  
Epoch 12407/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy: 0.9603  
Epoch 12408/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0333 - accuracy: 0.9599  
Epoch 12409/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy: 0.9591  
Epoch 12410/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0322 - accuracy: 0.9599  
Epoch 12411/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy: 0.9600  
Epoch 12412/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy: 0.9599  
Epoch 12413/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy: 0.9600  
Epoch 12414/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy: 0.9599  
Epoch 12415/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0324 - accuracy: 0.9594  
Epoch 12416/100000

2/2 [=====] - 0s 120ms/step - loss: 0.0320 - accuracy:  
0.9594  
Epoch 12417/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9600  
Epoch 12418/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9592  
Epoch 12419/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9598  
Epoch 12420/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9596  
Epoch 12421/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0320 - accuracy:  
0.9593  
Epoch 12422/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9595  
Epoch 12423/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9600  
Epoch 12424/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0320 - accuracy:  
0.9597  
Epoch 12425/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0322 - accuracy:  
0.9585  
Epoch 12426/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9599  
Epoch 12427/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9596  
Epoch 12428/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9595  
Epoch 12429/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0319 - accuracy:  
0.9593  
Epoch 12430/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9600  
Epoch 12431/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy:  
0.9607  
Epoch 12432/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0331 - accuracy: 0.9602  
Epoch 12433/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy: 0.9598  
Epoch 12434/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy: 0.9597  
Epoch 12435/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy: 0.9604  
Epoch 12436/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9589  
Epoch 12437/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy: 0.9597  
Epoch 12438/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0318 - accuracy: 0.9591  
Epoch 12439/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy: 0.9594  
Epoch 12440/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy: 0.9602  
Epoch 12441/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy: 0.9588  
Epoch 12442/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0316 - accuracy: 0.9608  
Epoch 12443/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy: 0.9596  
Epoch 12444/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy: 0.9596  
Epoch 12445/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0322 - accuracy: 0.9602  
Epoch 12446/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy: 0.9595  
Epoch 12447/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy: 0.9593  
Epoch 12448/100000

2/2 [=====] - 0s 120ms/step - loss: 0.0323 - accuracy:  
0.9597  
Epoch 12449/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0325 - accuracy:  
0.9600  
Epoch 12450/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9601  
Epoch 12451/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9598  
Epoch 12452/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0317 - accuracy:  
0.9588  
Epoch 12453/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9590  
Epoch 12454/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9592  
Epoch 12455/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0322 - accuracy:  
0.9600  
Epoch 12456/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9602  
Epoch 12457/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9599  
Epoch 12458/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0322 - accuracy:  
0.9590  
Epoch 12459/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9598  
Epoch 12460/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0324 - accuracy:  
0.9608  
Epoch 12461/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0325 - accuracy:  
0.9609  
Epoch 12462/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9596  
Epoch 12463/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9583  
Epoch 12464/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0321 - accuracy:  
0.9602  
Epoch 12465/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9594  
Epoch 12466/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9584  
Epoch 12467/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0328 - accuracy:  
0.9594  
Epoch 12468/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9597  
Epoch 12469/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9583  
Epoch 12470/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0324 - accuracy:  
0.9593  
Epoch 12471/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9595  
Epoch 12472/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9601  
Epoch 12473/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9600  
Epoch 12474/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0326 - accuracy:  
0.9597  
Epoch 12475/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9601  
Epoch 12476/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9592  
Epoch 12477/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0322 - accuracy:  
0.9593  
Epoch 12478/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0330 - accuracy:  
0.9600  
Epoch 12479/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0332 - accuracy:  
0.9602  
Epoch 12480/100000



2/2 [=====] - 0s 116ms/step - loss: 0.0337 - accuracy: 0.9601  
Epoch 12481/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy: 0.9603  
Epoch 12482/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0330 - accuracy: 0.9608  
Epoch 12483/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0334 - accuracy: 0.9590  
Epoch 12484/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy: 0.9589  
Epoch 12485/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy: 0.9589  
Epoch 12486/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0329 - accuracy: 0.9595  
Epoch 12487/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy: 0.9593  
Epoch 12488/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0326 - accuracy: 0.9590  
Epoch 12489/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy: 0.9595  
Epoch 12490/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0329 - accuracy: 0.9598  
Epoch 12491/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy: 0.9599  
Epoch 12492/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0331 - accuracy: 0.9607  
Epoch 12493/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy: 0.9597  
Epoch 12494/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0336 - accuracy: 0.9599  
Epoch 12495/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0326 - accuracy: 0.9594  
Epoch 12496/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9603  
Epoch 12497/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0322 - accuracy:  
0.9590  
Epoch 12498/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0334 - accuracy:  
0.9601  
Epoch 12499/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9588  
Epoch 12500/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0329 - accuracy:  
0.9599  
Epoch 12501/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0326 - accuracy:  
0.9590  
Epoch 12502/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9601  
Epoch 12503/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9593  
Epoch 12504/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0327 - accuracy:  
0.9602  
Epoch 12505/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9593  
Epoch 12506/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0325 - accuracy:  
0.9592  
Epoch 12507/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0330 - accuracy:  
0.9594  
Epoch 12508/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0324 - accuracy:  
0.9590  
Epoch 12509/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9593  
Epoch 12510/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9599  
Epoch 12511/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0325 - accuracy:  
0.9588  
Epoch 12512/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy: 0.9599  
Epoch 12513/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy: 0.9600  
Epoch 12514/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0328 - accuracy: 0.9602  
Epoch 12515/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0332 - accuracy: 0.9594  
Epoch 12516/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy: 0.9594  
Epoch 12517/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0327 - accuracy: 0.9596  
Epoch 12518/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0321 - accuracy: 0.9594  
Epoch 12519/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy: 0.9591  
Epoch 12520/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy: 0.9601  
Epoch 12521/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0320 - accuracy: 0.9590  
Epoch 12522/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0322 - accuracy: 0.9602  
Epoch 12523/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy: 0.9596  
Epoch 12524/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0319 - accuracy: 0.9603  
Epoch 12525/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0324 - accuracy: 0.9601  
Epoch 12526/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0317 - accuracy: 0.9593  
Epoch 12527/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy: 0.9595  
Epoch 12528/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0317 - accuracy:  
0.9595  
Epoch 12529/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0322 - accuracy:  
0.9605  
Epoch 12530/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9594  
Epoch 12531/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9588  
Epoch 12532/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0325 - accuracy:  
0.9596  
Epoch 12533/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9596  
Epoch 12534/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy:  
0.9601  
Epoch 12535/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9602  
Epoch 12536/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9600  
Epoch 12537/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9590  
Epoch 12538/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0321 - accuracy:  
0.9601  
Epoch 12539/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0324 - accuracy:  
0.9604  
Epoch 12540/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9595  
Epoch 12541/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9588  
Epoch 12542/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9597  
Epoch 12543/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9590  
Epoch 12544/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy:  
0.9593  
Epoch 12545/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0330 - accuracy:  
0.9596  
Epoch 12546/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0326 - accuracy:  
0.9599  
Epoch 12547/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9593  
Epoch 12548/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9599  
Epoch 12549/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0328 - accuracy:  
0.9600  
Epoch 12550/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9608  
Epoch 12551/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9597  
Epoch 12552/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9598  
Epoch 12553/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9595  
Epoch 12554/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9593  
Epoch 12555/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9598  
Epoch 12556/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9599  
Epoch 12557/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0318 - accuracy:  
0.9592  
Epoch 12558/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9594  
Epoch 12559/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9600  
Epoch 12560/100000

2/2 [=====] - 0s 121ms/step - loss: 0.0322 - accuracy:  
0.9601  
Epoch 12561/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0317 - accuracy:  
0.9600  
Epoch 12562/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9600  
Epoch 12563/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0315 - accuracy:  
0.9591  
Epoch 12564/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0324 - accuracy:  
0.9594  
Epoch 12565/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0322 - accuracy:  
0.9596  
Epoch 12566/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0330 - accuracy:  
0.9588  
Epoch 12567/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy:  
0.9586  
Epoch 12568/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9595  
Epoch 12569/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy:  
0.9595  
Epoch 12570/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy:  
0.9588  
Epoch 12571/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9600  
Epoch 12572/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0322 - accuracy:  
0.9597  
Epoch 12573/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0323 - accuracy:  
0.9600  
Epoch 12574/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9597  
Epoch 12575/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy:  
0.9594  
Epoch 12576/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9597  
Epoch 12577/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9591  
Epoch 12578/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9591  
Epoch 12579/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy:  
0.9591  
Epoch 12580/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9600  
Epoch 12581/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9598  
Epoch 12582/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9602  
Epoch 12583/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9588  
Epoch 12584/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9599  
Epoch 12585/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0322 - accuracy:  
0.9600  
Epoch 12586/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9592  
Epoch 12587/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9589  
Epoch 12588/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0330 - accuracy:  
0.9606  
Epoch 12589/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9602  
Epoch 12590/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9593  
Epoch 12591/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9592  
Epoch 12592/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9605  
Epoch 12593/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9595  
Epoch 12594/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0320 - accuracy:  
0.9592  
Epoch 12595/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9596  
Epoch 12596/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9600  
Epoch 12597/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9592  
Epoch 12598/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9600  
Epoch 12599/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0320 - accuracy:  
0.9597  
Epoch 12600/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9599  
Epoch 12601/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0317 - accuracy:  
0.9604  
Epoch 12602/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9596  
Epoch 12603/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy:  
0.9592  
Epoch 12604/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9603  
Epoch 12605/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9585  
Epoch 12606/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0319 - accuracy:  
0.9605  
Epoch 12607/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9597  
Epoch 12608/100000



2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9604  
Epoch 12609/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0320 - accuracy:  
0.9600  
Epoch 12610/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9601  
Epoch 12611/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0316 - accuracy:  
0.9587  
Epoch 12612/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9598  
Epoch 12613/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9598  
Epoch 12614/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9598  
Epoch 12615/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9606  
Epoch 12616/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9598  
Epoch 12617/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0317 - accuracy:  
0.9595  
Epoch 12618/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0318 - accuracy:  
0.9588  
Epoch 12619/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9589  
Epoch 12620/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0315 - accuracy:  
0.9589  
Epoch 12621/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9598  
Epoch 12622/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy:  
0.9590  
Epoch 12623/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0339 - accuracy:  
0.9593  
Epoch 12624/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9592  
Epoch 12625/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9600  
Epoch 12626/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0325 - accuracy:  
0.9600  
Epoch 12627/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0327 - accuracy:  
0.9604  
Epoch 12628/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9608  
Epoch 12629/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0330 - accuracy:  
0.9603  
Epoch 12630/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0333 - accuracy:  
0.9595  
Epoch 12631/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9590  
Epoch 12632/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0326 - accuracy:  
0.9595  
Epoch 12633/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0333 - accuracy:  
0.9602  
Epoch 12634/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9605  
Epoch 12635/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0329 - accuracy:  
0.9600  
Epoch 12636/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0327 - accuracy:  
0.9601  
Epoch 12637/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0320 - accuracy:  
0.9596  
Epoch 12638/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0327 - accuracy:  
0.9597  
Epoch 12639/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0326 - accuracy:  
0.9604  
Epoch 12640/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9596  
Epoch 12641/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9598  
Epoch 12642/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9595  
Epoch 12643/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy:  
0.9601  
Epoch 12644/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9595  
Epoch 12645/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0326 - accuracy:  
0.9595  
Epoch 12646/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9597  
Epoch 12647/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9598  
Epoch 12648/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9596  
Epoch 12649/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0322 - accuracy:  
0.9605  
Epoch 12650/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9607  
Epoch 12651/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9603  
Epoch 12652/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9592  
Epoch 12653/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9595  
Epoch 12654/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0329 - accuracy:  
0.9605  
Epoch 12655/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9590  
Epoch 12656/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9607  
Epoch 12657/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9594  
Epoch 12658/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9594  
Epoch 12659/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0320 - accuracy:  
0.9595  
Epoch 12660/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0327 - accuracy:  
0.9607  
Epoch 12661/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9599  
Epoch 12662/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0333 - accuracy:  
0.9593  
Epoch 12663/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9595  
Epoch 12664/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9606  
Epoch 12665/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0330 - accuracy:  
0.9601  
Epoch 12666/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0322 - accuracy:  
0.9593  
Epoch 12667/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9602  
Epoch 12668/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9594  
Epoch 12669/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0339 - accuracy:  
0.9593  
Epoch 12670/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9592  
Epoch 12671/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9605  
Epoch 12672/100000

2/2 [=====] - 0s 120ms/step - loss: 0.0335 - accuracy: 0.9592  
Epoch 12673/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy: 0.9597  
Epoch 12674/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy: 0.9590  
Epoch 12675/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy: 0.9608  
Epoch 12676/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0321 - accuracy: 0.9594  
Epoch 12677/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy: 0.9589  
Epoch 12678/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy: 0.9595  
Epoch 12679/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0328 - accuracy: 0.9604  
Epoch 12680/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0320 - accuracy: 0.9598  
Epoch 12681/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0321 - accuracy: 0.9589  
Epoch 12682/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy: 0.9592  
Epoch 12683/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0323 - accuracy: 0.9601  
Epoch 12684/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy: 0.9597  
Epoch 12685/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0325 - accuracy: 0.9598  
Epoch 12686/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0314 - accuracy: 0.9592  
Epoch 12687/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy: 0.9594  
Epoch 12688/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0326 - accuracy: 0.9599  
 Epoch 12689/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9593  
 Epoch 12690/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0319 - accuracy: 0.9596  
 Epoch 12691/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0324 - accuracy: 0.9592  
 Epoch 12692/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy: 0.9595  
 Epoch 12693/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy: 0.9600  
 Epoch 12694/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0331 - accuracy: 0.9586  
 Epoch 12695/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0325 - accuracy: 0.9597  
 Epoch 12696/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0335 - accuracy: 0.9600  
 Epoch 12697/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy: 0.9599  
 Epoch 12698/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0331 - accuracy: 0.9605  
 Epoch 12699/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0342 - accuracy: 0.9596  
 Epoch 12700/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy: 0.9591  
 Epoch 12701/100000  
 2/2 [=====] - 0s 121ms/step - loss: 0.0328 - accuracy: 0.9593  
 Epoch 12702/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0329 - accuracy: 0.9600  
 Epoch 12703/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy: 0.9590  
 Epoch 12704/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0328 - accuracy:  
0.9600  
Epoch 12705/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0326 - accuracy:  
0.9595  
Epoch 12706/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9598  
Epoch 12707/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9592  
Epoch 12708/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0320 - accuracy:  
0.9599  
Epoch 12709/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9595  
Epoch 12710/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9597  
Epoch 12711/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0322 - accuracy:  
0.9605  
Epoch 12712/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9600  
Epoch 12713/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9605  
Epoch 12714/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9602  
Epoch 12715/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0322 - accuracy:  
0.9593  
Epoch 12716/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9601  
Epoch 12717/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9602  
Epoch 12718/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0334 - accuracy:  
0.9599  
Epoch 12719/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9597  
Epoch 12720/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0327 - accuracy:  
0.9592  
Epoch 12721/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0343 - accuracy:  
0.9590  
Epoch 12722/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy:  
0.9605  
Epoch 12723/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
0.9595  
Epoch 12724/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9597  
Epoch 12725/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9588  
Epoch 12726/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0341 - accuracy:  
0.9602  
Epoch 12727/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0338 - accuracy:  
0.9594  
Epoch 12728/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9598  
Epoch 12729/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0326 - accuracy:  
0.9597  
Epoch 12730/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0332 - accuracy:  
0.9595  
Epoch 12731/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9598  
Epoch 12732/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9588  
Epoch 12733/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9595  
Epoch 12734/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9591  
Epoch 12735/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9600  
Epoch 12736/100000



2/2 [=====] - 0s 117ms/step - loss: 0.0324 - accuracy:  
0.9608  
Epoch 12737/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9596  
Epoch 12738/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9597  
Epoch 12739/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0324 - accuracy:  
0.9601  
Epoch 12740/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9592  
Epoch 12741/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9588  
Epoch 12742/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy:  
0.9597  
Epoch 12743/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9600  
Epoch 12744/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0332 - accuracy:  
0.9597  
Epoch 12745/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9602  
Epoch 12746/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9603  
Epoch 12747/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9591  
Epoch 12748/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy:  
0.9604  
Epoch 12749/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0321 - accuracy:  
0.9594  
Epoch 12750/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0322 - accuracy:  
0.9597  
Epoch 12751/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9595  
Epoch 12752/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy:  
0.9612  
Epoch 12753/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9592  
Epoch 12754/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9599  
Epoch 12755/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9598  
Epoch 12756/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9602  
Epoch 12757/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9598  
Epoch 12758/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0329 - accuracy:  
0.9601  
Epoch 12759/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9599  
Epoch 12760/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9605  
Epoch 12761/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9591  
Epoch 12762/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy:  
0.9598  
Epoch 12763/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0318 - accuracy:  
0.9604  
Epoch 12764/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9595  
Epoch 12765/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9600  
Epoch 12766/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0320 - accuracy:  
0.9599  
Epoch 12767/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0319 - accuracy:  
0.9597  
Epoch 12768/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9604  
Epoch 12769/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9603  
Epoch 12770/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0323 - accuracy:  
0.9598  
Epoch 12771/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9586  
Epoch 12772/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9601  
Epoch 12773/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0324 - accuracy:  
0.9608  
Epoch 12774/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0322 - accuracy:  
0.9591  
Epoch 12775/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0327 - accuracy:  
0.9605  
Epoch 12776/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9592  
Epoch 12777/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0320 - accuracy:  
0.9586  
Epoch 12778/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0349 - accuracy:  
0.9605  
Epoch 12779/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0330 - accuracy:  
0.9600  
Epoch 12780/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0336 - accuracy:  
0.9596  
Epoch 12781/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0345 - accuracy:  
0.9596  
Epoch 12782/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9594  
Epoch 12783/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9597  
Epoch 12784/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0324 - accuracy: 0.9593  
 Epoch 12785/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0330 - accuracy: 0.9606  
 Epoch 12786/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy: 0.9590  
 Epoch 12787/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0319 - accuracy: 0.9594  
 Epoch 12788/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy: 0.9589  
 Epoch 12789/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy: 0.9604  
 Epoch 12790/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0320 - accuracy: 0.9595  
 Epoch 12791/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy: 0.9598  
 Epoch 12792/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy: 0.9593  
 Epoch 12793/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy: 0.9595  
 Epoch 12794/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy: 0.9599  
 Epoch 12795/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy: 0.9589  
 Epoch 12796/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy: 0.9602  
 Epoch 12797/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0324 - accuracy: 0.9601  
 Epoch 12798/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy: 0.9606  
 Epoch 12799/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy: 0.9588  
 Epoch 12800/100000

2/2 [=====] - 0s 125ms/step - loss: 0.0319 - accuracy:  
0.9600  
Epoch 12801/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9589  
Epoch 12802/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9587  
Epoch 12803/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0316 - accuracy:  
0.9589  
Epoch 12804/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0319 - accuracy:  
0.9592  
Epoch 12805/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0321 - accuracy:  
0.9598  
Epoch 12806/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9595  
Epoch 12807/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0328 - accuracy:  
0.9600  
Epoch 12808/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0328 - accuracy:  
0.9599  
Epoch 12809/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9602  
Epoch 12810/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0330 - accuracy:  
0.9608  
Epoch 12811/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9597  
Epoch 12812/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9596  
Epoch 12813/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9599  
Epoch 12814/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9601  
Epoch 12815/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0331 - accuracy:  
0.9599  
Epoch 12816/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy:  
0.9594  
Epoch 12817/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy:  
0.9595  
Epoch 12818/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9591  
Epoch 12819/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9598  
Epoch 12820/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0323 - accuracy:  
0.9596  
Epoch 12821/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9603  
Epoch 12822/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0316 - accuracy:  
0.9595  
Epoch 12823/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9590  
Epoch 12824/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9594  
Epoch 12825/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9593  
Epoch 12826/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9595  
Epoch 12827/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9595  
Epoch 12828/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0314 - accuracy:  
0.9592  
Epoch 12829/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0319 - accuracy:  
0.9594  
Epoch 12830/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9595  
Epoch 12831/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9608  
Epoch 12832/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0324 - accuracy:  
0.9598  
Epoch 12833/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9594  
Epoch 12834/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy:  
0.9590  
Epoch 12835/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9612  
Epoch 12836/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9592  
Epoch 12837/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy:  
0.9598  
Epoch 12838/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0319 - accuracy:  
0.9599  
Epoch 12839/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9589  
Epoch 12840/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0336 - accuracy:  
0.9599  
Epoch 12841/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0335 - accuracy:  
0.9598  
Epoch 12842/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0330 - accuracy:  
0.9609  
Epoch 12843/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0335 - accuracy:  
0.9600  
Epoch 12844/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0328 - accuracy:  
0.9592  
Epoch 12845/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9598  
Epoch 12846/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0327 - accuracy:  
0.9598  
Epoch 12847/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9597  
Epoch 12848/100000

2/2 [=====] - 0s 121ms/step - loss: 0.0331 - accuracy: 0.9590  
Epoch 12849/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy: 0.9599  
Epoch 12850/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy: 0.9588  
Epoch 12851/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0361 - accuracy: 0.9603  
Epoch 12852/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0355 - accuracy: 0.9595  
Epoch 12853/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy: 0.9596  
Epoch 12854/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0334 - accuracy: 0.9609  
Epoch 12855/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy: 0.9601  
Epoch 12856/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy: 0.9602  
Epoch 12857/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy: 0.9589  
Epoch 12858/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0325 - accuracy: 0.9595  
Epoch 12859/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy: 0.9594  
Epoch 12860/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy: 0.9589  
Epoch 12861/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0332 - accuracy: 0.9590  
Epoch 12862/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy: 0.9605  
Epoch 12863/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0329 - accuracy: 0.9593  
Epoch 12864/100000



2/2 [=====] - 0s 116ms/step - loss: 0.0333 - accuracy:  
0.9603  
Epoch 12865/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy:  
0.9592  
Epoch 12866/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9592  
Epoch 12867/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9593  
Epoch 12868/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0326 - accuracy:  
0.9598  
Epoch 12869/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0320 - accuracy:  
0.9585  
Epoch 12870/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy:  
0.9587  
Epoch 12871/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0324 - accuracy:  
0.9596  
Epoch 12872/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0321 - accuracy:  
0.9600  
Epoch 12873/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9588  
Epoch 12874/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9605  
Epoch 12875/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9599  
Epoch 12876/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9598  
Epoch 12877/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9602  
Epoch 12878/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9593  
Epoch 12879/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0325 - accuracy:  
0.9605  
Epoch 12880/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy: 0.9598  
Epoch 12881/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy: 0.9605  
Epoch 12882/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0317 - accuracy: 0.9598  
Epoch 12883/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy: 0.9596  
Epoch 12884/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0322 - accuracy: 0.9602  
Epoch 12885/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy: 0.9591  
Epoch 12886/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0317 - accuracy: 0.9601  
Epoch 12887/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0321 - accuracy: 0.9593  
Epoch 12888/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy: 0.9595  
Epoch 12889/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy: 0.9598  
Epoch 12890/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy: 0.9600  
Epoch 12891/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0330 - accuracy: 0.9611  
Epoch 12892/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy: 0.9596  
Epoch 12893/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy: 0.9596  
Epoch 12894/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0322 - accuracy: 0.9589  
Epoch 12895/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy: 0.9598  
Epoch 12896/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0314 - accuracy:  
0.9590  
Epoch 12897/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0323 - accuracy:  
0.9591  
Epoch 12898/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9595  
Epoch 12899/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9593  
Epoch 12900/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0327 - accuracy:  
0.9606  
Epoch 12901/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9599  
Epoch 12902/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0323 - accuracy:  
0.9600  
Epoch 12903/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9593  
Epoch 12904/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0324 - accuracy:  
0.9595  
Epoch 12905/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9603  
Epoch 12906/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9602  
Epoch 12907/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0328 - accuracy:  
0.9593  
Epoch 12908/100000  
2/2 [=====] - 0s 126ms/step - loss: 0.0329 - accuracy:  
0.9598  
Epoch 12909/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9596  
Epoch 12910/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0328 - accuracy:  
0.9599  
Epoch 12911/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy:  
0.9596  
Epoch 12912/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9593  
Epoch 12913/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0327 - accuracy:  
0.9603  
Epoch 12914/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9596  
Epoch 12915/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0322 - accuracy:  
0.9598  
Epoch 12916/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0318 - accuracy:  
0.9598  
Epoch 12917/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9598  
Epoch 12918/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9592  
Epoch 12919/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0327 - accuracy:  
0.9590  
Epoch 12920/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9596  
Epoch 12921/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9589  
Epoch 12922/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0328 - accuracy:  
0.9587  
Epoch 12923/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0337 - accuracy:  
0.9596  
Epoch 12924/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9602  
Epoch 12925/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0336 - accuracy:  
0.9601  
Epoch 12926/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0348 - accuracy:  
0.9601  
Epoch 12927/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9594  
Epoch 12928/100000

2/2 [=====] - 0s 119ms/step - loss: 0.0325 - accuracy: 0.9597  
Epoch 12929/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy: 0.9595  
Epoch 12930/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy: 0.9592  
Epoch 12931/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0322 - accuracy: 0.9597  
Epoch 12932/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy: 0.9597  
Epoch 12933/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0321 - accuracy: 0.9596  
Epoch 12934/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0322 - accuracy: 0.9596  
Epoch 12935/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0314 - accuracy: 0.9593  
Epoch 12936/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0329 - accuracy: 0.9603  
Epoch 12937/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy: 0.9604  
Epoch 12938/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy: 0.9600  
Epoch 12939/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0324 - accuracy: 0.9587  
Epoch 12940/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0321 - accuracy: 0.9602  
Epoch 12941/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy: 0.9599  
Epoch 12942/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy: 0.9608  
Epoch 12943/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0322 - accuracy: 0.9586  
Epoch 12944/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy: 0.9595  
Epoch 12945/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0316 - accuracy: 0.9594  
Epoch 12946/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9589  
Epoch 12947/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy: 0.9591  
Epoch 12948/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy: 0.9600  
Epoch 12949/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0320 - accuracy: 0.9596  
Epoch 12950/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy: 0.9601  
Epoch 12951/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0327 - accuracy: 0.9598  
Epoch 12952/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0326 - accuracy: 0.9594  
Epoch 12953/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy: 0.9593  
Epoch 12954/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0321 - accuracy: 0.9599  
Epoch 12955/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0320 - accuracy: 0.9592  
Epoch 12956/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy: 0.9592  
Epoch 12957/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0322 - accuracy: 0.9599  
Epoch 12958/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy: 0.9600  
Epoch 12959/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0324 - accuracy: 0.9590  
Epoch 12960/100000

2/2 [=====] - 0s 119ms/step - loss: 0.0315 - accuracy:  
0.9594  
Epoch 12961/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0319 - accuracy:  
0.9594  
Epoch 12962/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0317 - accuracy:  
0.9590  
Epoch 12963/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9596  
Epoch 12964/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9590  
Epoch 12965/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9596  
Epoch 12966/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9591  
Epoch 12967/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9595  
Epoch 12968/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9595  
Epoch 12969/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9598  
Epoch 12970/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9596  
Epoch 12971/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0323 - accuracy:  
0.9600  
Epoch 12972/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0323 - accuracy:  
0.9582  
Epoch 12973/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9585  
Epoch 12974/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0321 - accuracy:  
0.9591  
Epoch 12975/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9593  
Epoch 12976/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9605  
Epoch 12977/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9586  
Epoch 12978/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9604  
Epoch 12979/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy:  
0.9599  
Epoch 12980/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9597  
Epoch 12981/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9597  
Epoch 12982/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9593  
Epoch 12983/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0330 - accuracy:  
0.9607  
Epoch 12984/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9588  
Epoch 12985/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0334 - accuracy:  
0.9597  
Epoch 12986/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9602  
Epoch 12987/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9609  
Epoch 12988/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0330 - accuracy:  
0.9596  
Epoch 12989/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0327 - accuracy:  
0.9603  
Epoch 12990/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9597  
Epoch 12991/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0329 - accuracy:  
0.9597  
Epoch 12992/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9593  
Epoch 12993/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9596  
Epoch 12994/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9588  
Epoch 12995/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9594  
Epoch 12996/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9598  
Epoch 12997/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9600  
Epoch 12998/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9596  
Epoch 12999/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9594  
Epoch 13000/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9604  
Epoch 13001/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0320 - accuracy:  
0.9588  
Epoch 13002/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy:  
0.9596  
Epoch 13003/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9598  
Epoch 13004/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0316 - accuracy:  
0.9599  
Epoch 13005/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0317 - accuracy:  
0.9592  
Epoch 13006/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0318 - accuracy:  
0.9602  
Epoch 13007/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9593  
Epoch 13008/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9595  
Epoch 13009/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9601  
Epoch 13010/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy:  
0.9592  
Epoch 13011/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9584  
Epoch 13012/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0317 - accuracy:  
0.9585  
Epoch 13013/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9589  
Epoch 13014/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9594  
Epoch 13015/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0314 - accuracy:  
0.9595  
Epoch 13016/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9606  
Epoch 13017/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0317 - accuracy:  
0.9599  
Epoch 13018/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy:  
0.9586  
Epoch 13019/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0318 - accuracy:  
0.9598  
Epoch 13020/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0326 - accuracy:  
0.9599  
Epoch 13021/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9593  
Epoch 13022/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9594  
Epoch 13023/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9590  
Epoch 13024/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9589  
Epoch 13025/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0318 - accuracy:  
0.9593  
Epoch 13026/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9594  
Epoch 13027/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9589  
Epoch 13028/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9590  
Epoch 13029/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9593  
Epoch 13030/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9590  
Epoch 13031/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9598  
Epoch 13032/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9604  
Epoch 13033/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9595  
Epoch 13034/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9594  
Epoch 13035/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9590  
Epoch 13036/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9587  
Epoch 13037/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0325 - accuracy:  
0.9587  
Epoch 13038/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0323 - accuracy:  
0.9597  
Epoch 13039/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9593  
Epoch 13040/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0319 - accuracy: 0.9597  
Epoch 13041/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0320 - accuracy: 0.9596  
Epoch 13042/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy: 0.9593  
Epoch 13043/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy: 0.9601  
Epoch 13044/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy: 0.9591  
Epoch 13045/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy: 0.9596  
Epoch 13046/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy: 0.9601  
Epoch 13047/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy: 0.9594  
Epoch 13048/100000  
2/2 [=====] - 0s 126ms/step - loss: 0.0321 - accuracy: 0.9606  
Epoch 13049/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy: 0.9598  
Epoch 13050/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy: 0.9588  
Epoch 13051/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy: 0.9608  
Epoch 13052/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0326 - accuracy: 0.9586  
Epoch 13053/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy: 0.9600  
Epoch 13054/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0329 - accuracy: 0.9590  
Epoch 13055/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0329 - accuracy: 0.9598  
Epoch 13056/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9604  
Epoch 13057/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9602  
Epoch 13058/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9591  
Epoch 13059/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0323 - accuracy:  
0.9596  
Epoch 13060/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0323 - accuracy:  
0.9592  
Epoch 13061/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9599  
Epoch 13062/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9589  
Epoch 13063/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9596  
Epoch 13064/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9600  
Epoch 13065/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0320 - accuracy:  
0.9600  
Epoch 13066/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9606  
Epoch 13067/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9588  
Epoch 13068/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy:  
0.9600  
Epoch 13069/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9592  
Epoch 13070/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9600  
Epoch 13071/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0323 - accuracy:  
0.9599  
Epoch 13072/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9591  
Epoch 13073/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9599  
Epoch 13074/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0331 - accuracy:  
0.9599  
Epoch 13075/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9595  
Epoch 13076/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0333 - accuracy:  
0.9602  
Epoch 13077/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9583  
Epoch 13078/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0324 - accuracy:  
0.9594  
Epoch 13079/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9586  
Epoch 13080/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9593  
Epoch 13081/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0325 - accuracy:  
0.9593  
Epoch 13082/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy:  
0.9600  
Epoch 13083/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9592  
Epoch 13084/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0326 - accuracy:  
0.9596  
Epoch 13085/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0317 - accuracy:  
0.9597  
Epoch 13086/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9598  
Epoch 13087/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0323 - accuracy:  
0.9600  
Epoch 13088/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9589  
Epoch 13089/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9600  
Epoch 13090/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0325 - accuracy:  
0.9592  
Epoch 13091/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9591  
Epoch 13092/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0343 - accuracy:  
0.9591  
Epoch 13093/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy:  
0.9601  
Epoch 13094/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
0.9598  
Epoch 13095/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0353 - accuracy:  
0.9592  
Epoch 13096/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy:  
0.9590  
Epoch 13097/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0332 - accuracy:  
0.9595  
Epoch 13098/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9589  
Epoch 13099/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0331 - accuracy:  
0.9587  
Epoch 13100/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0332 - accuracy:  
0.9600  
Epoch 13101/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0326 - accuracy:  
0.9595  
Epoch 13102/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0330 - accuracy:  
0.9595  
Epoch 13103/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9594  
Epoch 13104/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy: 0.9590  
Epoch 13105/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0334 - accuracy: 0.9586  
Epoch 13106/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy: 0.9594  
Epoch 13107/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0340 - accuracy: 0.9596  
Epoch 13108/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy: 0.9592  
Epoch 13109/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy: 0.9594  
Epoch 13110/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0327 - accuracy: 0.9595  
Epoch 13111/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy: 0.9594  
Epoch 13112/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0337 - accuracy: 0.9607  
Epoch 13113/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0326 - accuracy: 0.9603  
Epoch 13114/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy: 0.9595  
Epoch 13115/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy: 0.9598  
Epoch 13116/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy: 0.9602  
Epoch 13117/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0320 - accuracy: 0.9590  
Epoch 13118/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0325 - accuracy: 0.9597  
Epoch 13119/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy: 0.9600  
Epoch 13120/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9601  
Epoch 13121/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0332 - accuracy:  
0.9595  
Epoch 13122/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9587  
Epoch 13123/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9593  
Epoch 13124/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9607  
Epoch 13125/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9592  
Epoch 13126/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9606  
Epoch 13127/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9599  
Epoch 13128/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9596  
Epoch 13129/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9608  
Epoch 13130/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9596  
Epoch 13131/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0321 - accuracy:  
0.9603  
Epoch 13132/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9601  
Epoch 13133/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9596  
Epoch 13134/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0319 - accuracy:  
0.9603  
Epoch 13135/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0321 - accuracy:  
0.9595  
Epoch 13136/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0320 - accuracy:  
0.9590  
Epoch 13137/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9609  
Epoch 13138/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9590  
Epoch 13139/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9607  
Epoch 13140/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9601  
Epoch 13141/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9602  
Epoch 13142/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0319 - accuracy:  
0.9599  
Epoch 13143/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0318 - accuracy:  
0.9604  
Epoch 13144/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9603  
Epoch 13145/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9599  
Epoch 13146/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9594  
Epoch 13147/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0318 - accuracy:  
0.9596  
Epoch 13148/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0324 - accuracy:  
0.9594  
Epoch 13149/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9600  
Epoch 13150/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9601  
Epoch 13151/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0317 - accuracy:  
0.9594  
Epoch 13152/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy: 0.9597  
Epoch 13153/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9596  
Epoch 13154/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy: 0.9591  
Epoch 13155/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0320 - accuracy: 0.9592  
Epoch 13156/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy: 0.9596  
Epoch 13157/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy: 0.9596  
Epoch 13158/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy: 0.9598  
Epoch 13159/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0316 - accuracy: 0.9603  
Epoch 13160/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy: 0.9594  
Epoch 13161/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0328 - accuracy: 0.9605  
Epoch 13162/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy: 0.9598  
Epoch 13163/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy: 0.9594  
Epoch 13164/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy: 0.9604  
Epoch 13165/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0319 - accuracy: 0.9592  
Epoch 13166/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0322 - accuracy: 0.9583  
Epoch 13167/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0342 - accuracy: 0.9609  
Epoch 13168/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0345 - accuracy: 0.9597  
Epoch 13169/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0334 - accuracy: 0.9592  
Epoch 13170/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy: 0.9587  
Epoch 13171/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0327 - accuracy: 0.9591  
Epoch 13172/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy: 0.9592  
Epoch 13173/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy: 0.9595  
Epoch 13174/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0328 - accuracy: 0.9593  
Epoch 13175/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0327 - accuracy: 0.9599  
Epoch 13176/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy: 0.9600  
Epoch 13177/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0329 - accuracy: 0.9598  
Epoch 13178/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy: 0.9590  
Epoch 13179/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy: 0.9593  
Epoch 13180/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0328 - accuracy: 0.9595  
Epoch 13181/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy: 0.9599  
Epoch 13182/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0317 - accuracy: 0.9597  
Epoch 13183/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy: 0.9607  
Epoch 13184/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9600  
Epoch 13185/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0332 - accuracy:  
0.9595  
Epoch 13186/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9596  
Epoch 13187/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy:  
0.9596  
Epoch 13188/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9594  
Epoch 13189/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9599  
Epoch 13190/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9588  
Epoch 13191/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0320 - accuracy:  
0.9599  
Epoch 13192/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy:  
0.9595  
Epoch 13193/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9600  
Epoch 13194/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9602  
Epoch 13195/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0328 - accuracy:  
0.9608  
Epoch 13196/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0321 - accuracy:  
0.9597  
Epoch 13197/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0324 - accuracy:  
0.9591  
Epoch 13198/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9594  
Epoch 13199/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9596  
Epoch 13200/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy: 0.9595  
Epoch 13201/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0321 - accuracy: 0.9608  
Epoch 13202/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0321 - accuracy: 0.9592  
Epoch 13203/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy: 0.9599  
Epoch 13204/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy: 0.9604  
Epoch 13205/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy: 0.9599  
Epoch 13206/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy: 0.9605  
Epoch 13207/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy: 0.9592  
Epoch 13208/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy: 0.9598  
Epoch 13209/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy: 0.9601  
Epoch 13210/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy: 0.9604  
Epoch 13211/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0331 - accuracy: 0.9601  
Epoch 13212/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0324 - accuracy: 0.9592  
Epoch 13213/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0324 - accuracy: 0.9591  
Epoch 13214/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy: 0.9597  
Epoch 13215/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy: 0.9600  
Epoch 13216/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9602  
Epoch 13217/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9597  
Epoch 13218/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy:  
0.9595  
Epoch 13219/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9596  
Epoch 13220/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9592  
Epoch 13221/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9599  
Epoch 13222/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9598  
Epoch 13223/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0321 - accuracy:  
0.9592  
Epoch 13224/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0314 - accuracy:  
0.9593  
Epoch 13225/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy:  
0.9588  
Epoch 13226/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9601  
Epoch 13227/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9590  
Epoch 13228/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0320 - accuracy:  
0.9593  
Epoch 13229/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9592  
Epoch 13230/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9596  
Epoch 13231/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9610  
Epoch 13232/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy: 0.9594  
Epoch 13233/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy: 0.9597  
Epoch 13234/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy: 0.9603  
Epoch 13235/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0324 - accuracy: 0.9599  
Epoch 13236/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0322 - accuracy: 0.9586  
Epoch 13237/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy: 0.9597  
Epoch 13238/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy: 0.9604  
Epoch 13239/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy: 0.9600  
Epoch 13240/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0319 - accuracy: 0.9594  
Epoch 13241/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0322 - accuracy: 0.9595  
Epoch 13242/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy: 0.9596  
Epoch 13243/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy: 0.9599  
Epoch 13244/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9597  
Epoch 13245/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9597  
Epoch 13246/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy: 0.9592  
Epoch 13247/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0320 - accuracy: 0.9603  
Epoch 13248/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9605  
Epoch 13249/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9599  
Epoch 13250/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9598  
Epoch 13251/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9604  
Epoch 13252/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0329 - accuracy:  
0.9590  
Epoch 13253/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9597  
Epoch 13254/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9602  
Epoch 13255/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9604  
Epoch 13256/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9596  
Epoch 13257/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9592  
Epoch 13258/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9591  
Epoch 13259/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0346 - accuracy:  
0.9593  
Epoch 13260/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0335 - accuracy:  
0.9603  
Epoch 13261/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0333 - accuracy:  
0.9598  
Epoch 13262/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy:  
0.9610  
Epoch 13263/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9592  
Epoch 13264/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9598  
Epoch 13265/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9597  
Epoch 13266/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9602  
Epoch 13267/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9589  
Epoch 13268/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0321 - accuracy:  
0.9594  
Epoch 13269/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0322 - accuracy:  
0.9600  
Epoch 13270/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0320 - accuracy:  
0.9589  
Epoch 13271/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9603  
Epoch 13272/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9605  
Epoch 13273/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0322 - accuracy:  
0.9588  
Epoch 13274/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9609  
Epoch 13275/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0329 - accuracy:  
0.9604  
Epoch 13276/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0332 - accuracy:  
0.9601  
Epoch 13277/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9589  
Epoch 13278/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0322 - accuracy:  
0.9589  
Epoch 13279/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9590  
Epoch 13280/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9601  
Epoch 13281/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0327 - accuracy:  
0.9593  
Epoch 13282/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9593  
Epoch 13283/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0329 - accuracy:  
0.9598  
Epoch 13284/100000  
2/2 [=====] - 0s 129ms/step - loss: 0.0326 - accuracy:  
0.9594  
Epoch 13285/100000  
2/2 [=====] - 0s 128ms/step - loss: 0.0323 - accuracy:  
0.9587  
Epoch 13286/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0324 - accuracy:  
0.9587  
Epoch 13287/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0332 - accuracy:  
0.9594  
Epoch 13288/100000  
2/2 [=====] - 0s 126ms/step - loss: 0.0321 - accuracy:  
0.9587  
Epoch 13289/100000  
2/2 [=====] - 0s 126ms/step - loss: 0.0323 - accuracy:  
0.9608  
Epoch 13290/100000  
2/2 [=====] - 0s 129ms/step - loss: 0.0329 - accuracy:  
0.9596  
Epoch 13291/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0324 - accuracy:  
0.9595  
Epoch 13292/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9597  
Epoch 13293/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9597  
Epoch 13294/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0324 - accuracy:  
0.9591  
Epoch 13295/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9596  
Epoch 13296/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0322 - accuracy:  
0.9606  
Epoch 13297/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9594  
Epoch 13298/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0324 - accuracy:  
0.9599  
Epoch 13299/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9594  
Epoch 13300/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9588  
Epoch 13301/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0323 - accuracy:  
0.9594  
Epoch 13302/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9597  
Epoch 13303/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0332 - accuracy:  
0.9600  
Epoch 13304/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9591  
Epoch 13305/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0332 - accuracy:  
0.9604  
Epoch 13306/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9595  
Epoch 13307/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy:  
0.9606  
Epoch 13308/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0336 - accuracy:  
0.9602  
Epoch 13309/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy:  
0.9593  
Epoch 13310/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy:  
0.9590  
Epoch 13311/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9608  
Epoch 13312/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9599  
Epoch 13313/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0328 - accuracy:  
0.9596  
Epoch 13314/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9594  
Epoch 13315/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9594  
Epoch 13316/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0327 - accuracy:  
0.9594  
Epoch 13317/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0331 - accuracy:  
0.9603  
Epoch 13318/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0324 - accuracy:  
0.9594  
Epoch 13319/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9597  
Epoch 13320/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9586  
Epoch 13321/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0325 - accuracy:  
0.9601  
Epoch 13322/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0321 - accuracy:  
0.9602  
Epoch 13323/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9593  
Epoch 13324/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0328 - accuracy:  
0.9605  
Epoch 13325/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0333 - accuracy:  
0.9599  
Epoch 13326/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9604  
Epoch 13327/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9594  
Epoch 13328/100000

2/2 [=====] - 0s 122ms/step - loss: 0.0322 - accuracy:  
0.9591  
Epoch 13329/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9592  
Epoch 13330/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0320 - accuracy:  
0.9597  
Epoch 13331/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0315 - accuracy:  
0.9599  
Epoch 13332/100000  
2/2 [=====] - 0s 136ms/step - loss: 0.0318 - accuracy:  
0.9596  
Epoch 13333/100000  
2/2 [=====] - 0s 128ms/step - loss: 0.0318 - accuracy:  
0.9590  
Epoch 13334/100000  
2/2 [=====] - 0s 134ms/step - loss: 0.0320 - accuracy:  
0.9596  
Epoch 13335/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0319 - accuracy:  
0.9603  
Epoch 13336/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0317 - accuracy:  
0.9595  
Epoch 13337/100000  
2/2 [=====] - 0s 127ms/step - loss: 0.0317 - accuracy:  
0.9595  
Epoch 13338/100000  
2/2 [=====] - 0s 143ms/step - loss: 0.0315 - accuracy:  
0.9597  
Epoch 13339/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9592  
Epoch 13340/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9596  
Epoch 13341/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9582  
Epoch 13342/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0315 - accuracy:  
0.9587  
Epoch 13343/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9594  
Epoch 13344/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0321 - accuracy:  
0.9602  
Epoch 13345/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9596  
Epoch 13346/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0328 - accuracy:  
0.9606  
Epoch 13347/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9594  
Epoch 13348/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9601  
Epoch 13349/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0323 - accuracy:  
0.9594  
Epoch 13350/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0323 - accuracy:  
0.9597  
Epoch 13351/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9595  
Epoch 13352/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9591  
Epoch 13353/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9589  
Epoch 13354/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9598  
Epoch 13355/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9598  
Epoch 13356/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9588  
Epoch 13357/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0320 - accuracy:  
0.9595  
Epoch 13358/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9589  
Epoch 13359/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9602  
Epoch 13360/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9599  
Epoch 13361/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9593  
Epoch 13362/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0319 - accuracy:  
0.9594  
Epoch 13363/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0321 - accuracy:  
0.9600  
Epoch 13364/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0322 - accuracy:  
0.9595  
Epoch 13365/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0317 - accuracy:  
0.9600  
Epoch 13366/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0319 - accuracy:  
0.9595  
Epoch 13367/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9602  
Epoch 13368/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9600  
Epoch 13369/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9601  
Epoch 13370/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0310 - accuracy:  
0.9589  
Epoch 13371/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9599  
Epoch 13372/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0317 - accuracy:  
0.9601  
Epoch 13373/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9598  
Epoch 13374/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9594  
Epoch 13375/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0315 - accuracy:  
0.9600  
Epoch 13376/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9594  
Epoch 13377/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0317 - accuracy:  
0.9597  
Epoch 13378/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0318 - accuracy:  
0.9593  
Epoch 13379/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0319 - accuracy:  
0.9607  
Epoch 13380/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9597  
Epoch 13381/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9593  
Epoch 13382/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9598  
Epoch 13383/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9586  
Epoch 13384/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0318 - accuracy:  
0.9596  
Epoch 13385/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9593  
Epoch 13386/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9594  
Epoch 13387/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9590  
Epoch 13388/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy:  
0.9606  
Epoch 13389/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0320 - accuracy:  
0.9592  
Epoch 13390/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0319 - accuracy:  
0.9590  
Epoch 13391/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9606  
Epoch 13392/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9593  
Epoch 13393/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9603  
Epoch 13394/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9602  
Epoch 13395/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0319 - accuracy:  
0.9591  
Epoch 13396/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9599  
Epoch 13397/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0320 - accuracy:  
0.9609  
Epoch 13398/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy:  
0.9595  
Epoch 13399/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9590  
Epoch 13400/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9591  
Epoch 13401/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9590  
Epoch 13402/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0323 - accuracy:  
0.9600  
Epoch 13403/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0323 - accuracy:  
0.9595  
Epoch 13404/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9600  
Epoch 13405/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0322 - accuracy:  
0.9596  
Epoch 13406/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9605  
Epoch 13407/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9597  
Epoch 13408/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0329 - accuracy: 0.9589  
Epoch 13409/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy: 0.9592  
Epoch 13410/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy: 0.9602  
Epoch 13411/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy: 0.9595  
Epoch 13412/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy: 0.9605  
Epoch 13413/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy: 0.9603  
Epoch 13414/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy: 0.9601  
Epoch 13415/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy: 0.9593  
Epoch 13416/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy: 0.9602  
Epoch 13417/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy: 0.9592  
Epoch 13418/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0319 - accuracy: 0.9593  
Epoch 13419/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0320 - accuracy: 0.9601  
Epoch 13420/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0314 - accuracy: 0.9600  
Epoch 13421/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0316 - accuracy: 0.9595  
Epoch 13422/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy: 0.9592  
Epoch 13423/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy: 0.9601  
Epoch 13424/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9596  
Epoch 13425/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9601  
Epoch 13426/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0318 - accuracy:  
0.9593  
Epoch 13427/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9595  
Epoch 13428/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9602  
Epoch 13429/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9595  
Epoch 13430/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0321 - accuracy:  
0.9590  
Epoch 13431/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0320 - accuracy:  
0.9593  
Epoch 13432/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9595  
Epoch 13433/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0317 - accuracy:  
0.9588  
Epoch 13434/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9594  
Epoch 13435/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0324 - accuracy:  
0.9600  
Epoch 13436/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9595  
Epoch 13437/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9596  
Epoch 13438/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9590  
Epoch 13439/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9604  
Epoch 13440/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0327 - accuracy:  
0.9593  
Epoch 13441/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0319 - accuracy:  
0.9589  
Epoch 13442/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0326 - accuracy:  
0.9594  
Epoch 13443/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0325 - accuracy:  
0.9605  
Epoch 13444/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0321 - accuracy:  
0.9596  
Epoch 13445/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0319 - accuracy:  
0.9601  
Epoch 13446/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0332 - accuracy:  
0.9608  
Epoch 13447/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9584  
Epoch 13448/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy:  
0.9599  
Epoch 13449/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9599  
Epoch 13450/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0350 - accuracy:  
0.9593  
Epoch 13451/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0342 - accuracy:  
0.9592  
Epoch 13452/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9599  
Epoch 13453/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9590  
Epoch 13454/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9608  
Epoch 13455/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9597  
Epoch 13456/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9602  
Epoch 13457/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9589  
Epoch 13458/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0324 - accuracy:  
0.9590  
Epoch 13459/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9602  
Epoch 13460/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9601  
Epoch 13461/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0320 - accuracy:  
0.9600  
Epoch 13462/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9592  
Epoch 13463/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0326 - accuracy:  
0.9596  
Epoch 13464/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9593  
Epoch 13465/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9602  
Epoch 13466/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9603  
Epoch 13467/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9596  
Epoch 13468/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0319 - accuracy:  
0.9598  
Epoch 13469/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9599  
Epoch 13470/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0319 - accuracy:  
0.9597  
Epoch 13471/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9599  
Epoch 13472/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9594  
Epoch 13473/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9597  
Epoch 13474/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9595  
Epoch 13475/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0329 - accuracy:  
0.9605  
Epoch 13476/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0331 - accuracy:  
0.9598  
Epoch 13477/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0329 - accuracy:  
0.9601  
Epoch 13478/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9613  
Epoch 13479/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9593  
Epoch 13480/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9601  
Epoch 13481/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9592  
Epoch 13482/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9598  
Epoch 13483/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0317 - accuracy:  
0.9598  
Epoch 13484/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9598  
Epoch 13485/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9594  
Epoch 13486/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9594  
Epoch 13487/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy:  
0.9597  
Epoch 13488/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9594  
Epoch 13489/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9590  
Epoch 13490/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0317 - accuracy:  
0.9605  
Epoch 13491/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9591  
Epoch 13492/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9595  
Epoch 13493/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0324 - accuracy:  
0.9603  
Epoch 13494/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9608  
Epoch 13495/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9599  
Epoch 13496/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0320 - accuracy:  
0.9600  
Epoch 13497/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9599  
Epoch 13498/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9596  
Epoch 13499/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0317 - accuracy:  
0.9611  
Epoch 13500/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0316 - accuracy:  
0.9587  
Epoch 13501/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9601  
Epoch 13502/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy:  
0.9592  
Epoch 13503/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9602  
Epoch 13504/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy: 0.9597  
Epoch 13505/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy: 0.9593  
Epoch 13506/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy: 0.9602  
Epoch 13507/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0320 - accuracy: 0.9592  
Epoch 13508/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy: 0.9611  
Epoch 13509/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy: 0.9594  
Epoch 13510/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy: 0.9597  
Epoch 13511/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0325 - accuracy: 0.9601  
Epoch 13512/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9599  
Epoch 13513/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy: 0.9601  
Epoch 13514/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9595  
Epoch 13515/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0315 - accuracy: 0.9591  
Epoch 13516/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0317 - accuracy: 0.9592  
Epoch 13517/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy: 0.9604  
Epoch 13518/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0318 - accuracy: 0.9597  
Epoch 13519/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9597  
Epoch 13520/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9594  
Epoch 13521/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9606  
Epoch 13522/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9604  
Epoch 13523/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9603  
Epoch 13524/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9604  
Epoch 13525/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0322 - accuracy:  
0.9587  
Epoch 13526/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9601  
Epoch 13527/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9593  
Epoch 13528/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9596  
Epoch 13529/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9597  
Epoch 13530/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0323 - accuracy:  
0.9594  
Epoch 13531/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9596  
Epoch 13532/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy:  
0.9595  
Epoch 13533/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9601  
Epoch 13534/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9592  
Epoch 13535/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0319 - accuracy:  
0.9593  
Epoch 13536/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9598  
Epoch 13537/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9583  
Epoch 13538/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9595  
Epoch 13539/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0328 - accuracy:  
0.9590  
Epoch 13540/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy:  
0.9599  
Epoch 13541/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9597  
Epoch 13542/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9593  
Epoch 13543/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0320 - accuracy:  
0.9589  
Epoch 13544/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9593  
Epoch 13545/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0326 - accuracy:  
0.9601  
Epoch 13546/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9603  
Epoch 13547/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0321 - accuracy:  
0.9594  
Epoch 13548/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9603  
Epoch 13549/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9593  
Epoch 13550/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9590  
Epoch 13551/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9601  
Epoch 13552/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9595  
Epoch 13553/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9594  
Epoch 13554/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9594  
Epoch 13555/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0317 - accuracy:  
0.9598  
Epoch 13556/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0315 - accuracy:  
0.9586  
Epoch 13557/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9588  
Epoch 13558/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9600  
Epoch 13559/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0322 - accuracy:  
0.9598  
Epoch 13560/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9603  
Epoch 13561/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9601  
Epoch 13562/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0320 - accuracy:  
0.9601  
Epoch 13563/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9589  
Epoch 13564/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0322 - accuracy:  
0.9598  
Epoch 13565/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9602  
Epoch 13566/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9592  
Epoch 13567/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0329 - accuracy:  
0.9600  
Epoch 13568/100000

2/2 [=====] - 0s 121ms/step - loss: 0.0321 - accuracy:  
0.9604  
Epoch 13569/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0331 - accuracy:  
0.9593  
Epoch 13570/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0352 - accuracy:  
0.9591  
Epoch 13571/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0333 - accuracy:  
0.9597  
Epoch 13572/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0357 - accuracy:  
0.9597  
Epoch 13573/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0353 - accuracy:  
0.9601  
Epoch 13574/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0350 - accuracy:  
0.9605  
Epoch 13575/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9600  
Epoch 13576/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0337 - accuracy:  
0.9606  
Epoch 13577/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy:  
0.9600  
Epoch 13578/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0347 - accuracy:  
0.9606  
Epoch 13579/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy:  
0.9601  
Epoch 13580/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0335 - accuracy:  
0.9591  
Epoch 13581/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9599  
Epoch 13582/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0322 - accuracy:  
0.9583  
Epoch 13583/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0327 - accuracy:  
0.9587  
Epoch 13584/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9597  
Epoch 13585/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0319 - accuracy:  
0.9593  
Epoch 13586/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9597  
Epoch 13587/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0321 - accuracy:  
0.9600  
Epoch 13588/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9598  
Epoch 13589/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0316 - accuracy:  
0.9596  
Epoch 13590/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0315 - accuracy:  
0.9600  
Epoch 13591/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0314 - accuracy:  
0.9595  
Epoch 13592/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9604  
Epoch 13593/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0320 - accuracy:  
0.9582  
Epoch 13594/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0323 - accuracy:  
0.9599  
Epoch 13595/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9587  
Epoch 13596/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9596  
Epoch 13597/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy:  
0.9596  
Epoch 13598/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9591  
Epoch 13599/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9599  
Epoch 13600/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9590  
Epoch 13601/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9599  
Epoch 13602/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0317 - accuracy:  
0.9593  
Epoch 13603/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0326 - accuracy:  
0.9595  
Epoch 13604/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9594  
Epoch 13605/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0324 - accuracy:  
0.9593  
Epoch 13606/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0329 - accuracy:  
0.9593  
Epoch 13607/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0322 - accuracy:  
0.9601  
Epoch 13608/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0327 - accuracy:  
0.9607  
Epoch 13609/100000  
2/2 [=====] - 0s 127ms/step - loss: 0.0317 - accuracy:  
0.9599  
Epoch 13610/100000  
2/2 [=====] - 0s 126ms/step - loss: 0.0314 - accuracy:  
0.9592  
Epoch 13611/100000  
2/2 [=====] - 0s 129ms/step - loss: 0.0319 - accuracy:  
0.9594  
Epoch 13612/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0321 - accuracy:  
0.9603  
Epoch 13613/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0318 - accuracy:  
0.9599  
Epoch 13614/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9594  
Epoch 13615/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0312 - accuracy:  
0.9592  
Epoch 13616/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy: 0.9593  
Epoch 13617/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0315 - accuracy: 0.9602  
Epoch 13618/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy: 0.9593  
Epoch 13619/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0321 - accuracy: 0.9599  
Epoch 13620/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy: 0.9604  
Epoch 13621/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0321 - accuracy: 0.9604  
Epoch 13622/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0319 - accuracy: 0.9605  
Epoch 13623/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy: 0.9593  
Epoch 13624/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy: 0.9595  
Epoch 13625/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9588  
Epoch 13626/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy: 0.9605  
Epoch 13627/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy: 0.9602  
Epoch 13628/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy: 0.9600  
Epoch 13629/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy: 0.9602  
Epoch 13630/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy: 0.9595  
Epoch 13631/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0326 - accuracy: 0.9602  
Epoch 13632/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9595  
Epoch 13633/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9597  
Epoch 13634/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0318 - accuracy:  
0.9602  
Epoch 13635/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0318 - accuracy:  
0.9598  
Epoch 13636/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0317 - accuracy:  
0.9597  
Epoch 13637/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9592  
Epoch 13638/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9596  
Epoch 13639/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0317 - accuracy:  
0.9596  
Epoch 13640/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9600  
Epoch 13641/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9598  
Epoch 13642/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0313 - accuracy:  
0.9591  
Epoch 13643/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9592  
Epoch 13644/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0330 - accuracy:  
0.9598  
Epoch 13645/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9600  
Epoch 13646/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0326 - accuracy:  
0.9594  
Epoch 13647/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0329 - accuracy:  
0.9598  
Epoch 13648/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9595  
Epoch 13649/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0339 - accuracy:  
0.9606  
Epoch 13650/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0330 - accuracy:  
0.9594  
Epoch 13651/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9588  
Epoch 13652/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9609  
Epoch 13653/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0325 - accuracy:  
0.9592  
Epoch 13654/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9595  
Epoch 13655/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9603  
Epoch 13656/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9601  
Epoch 13657/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0324 - accuracy:  
0.9592  
Epoch 13658/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9596  
Epoch 13659/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0319 - accuracy:  
0.9600  
Epoch 13660/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9591  
Epoch 13661/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9591  
Epoch 13662/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9593  
Epoch 13663/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0323 - accuracy:  
0.9597  
Epoch 13664/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0321 - accuracy:  
0.9604  
Epoch 13665/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9603  
Epoch 13666/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9605  
Epoch 13667/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0338 - accuracy:  
0.9597  
Epoch 13668/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9599  
Epoch 13669/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0343 - accuracy:  
0.9596  
Epoch 13670/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0342 - accuracy:  
0.9599  
Epoch 13671/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9597  
Epoch 13672/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy:  
0.9600  
Epoch 13673/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0330 - accuracy:  
0.9594  
Epoch 13674/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0330 - accuracy:  
0.9591  
Epoch 13675/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9601  
Epoch 13676/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0336 - accuracy:  
0.9589  
Epoch 13677/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0336 - accuracy:  
0.9600  
Epoch 13678/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0329 - accuracy:  
0.9596  
Epoch 13679/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9586  
Epoch 13680/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9600  
Epoch 13681/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9587  
Epoch 13682/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0335 - accuracy:  
0.9598  
Epoch 13683/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9600  
Epoch 13684/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9595  
Epoch 13685/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9596  
Epoch 13686/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0325 - accuracy:  
0.9596  
Epoch 13687/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9604  
Epoch 13688/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9599  
Epoch 13689/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9599  
Epoch 13690/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9584  
Epoch 13691/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0327 - accuracy:  
0.9613  
Epoch 13692/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9590  
Epoch 13693/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0330 - accuracy:  
0.9600  
Epoch 13694/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9594  
Epoch 13695/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0328 - accuracy:  
0.9593  
Epoch 13696/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9604  
Epoch 13697/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0334 - accuracy:  
0.9607  
Epoch 13698/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9596  
Epoch 13699/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0326 - accuracy:  
0.9593  
Epoch 13700/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0328 - accuracy:  
0.9594  
Epoch 13701/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9601  
Epoch 13702/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9591  
Epoch 13703/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0320 - accuracy:  
0.9590  
Epoch 13704/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9592  
Epoch 13705/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9597  
Epoch 13706/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9600  
Epoch 13707/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0320 - accuracy:  
0.9600  
Epoch 13708/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0316 - accuracy:  
0.9594  
Epoch 13709/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0314 - accuracy:  
0.9598  
Epoch 13710/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9601  
Epoch 13711/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0317 - accuracy:  
0.9597  
Epoch 13712/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9607  
Epoch 13713/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9605  
Epoch 13714/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9597  
Epoch 13715/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0320 - accuracy:  
0.9604  
Epoch 13716/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9595  
Epoch 13717/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9587  
Epoch 13718/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9608  
Epoch 13719/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0327 - accuracy:  
0.9604  
Epoch 13720/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9596  
Epoch 13721/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9596  
Epoch 13722/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0318 - accuracy:  
0.9595  
Epoch 13723/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9601  
Epoch 13724/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0330 - accuracy:  
0.9595  
Epoch 13725/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9593  
Epoch 13726/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0327 - accuracy:  
0.9602  
Epoch 13727/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9597  
Epoch 13728/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0327 - accuracy:  
0.9602  
Epoch 13729/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9598  
Epoch 13730/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9598  
Epoch 13731/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9602  
Epoch 13732/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0323 - accuracy:  
0.9590  
Epoch 13733/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0321 - accuracy:  
0.9587  
Epoch 13734/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9592  
Epoch 13735/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9592  
Epoch 13736/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9590  
Epoch 13737/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9604  
Epoch 13738/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0329 - accuracy:  
0.9597  
Epoch 13739/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9602  
Epoch 13740/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0335 - accuracy:  
0.9593  
Epoch 13741/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9604  
Epoch 13742/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0329 - accuracy:  
0.9591  
Epoch 13743/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0329 - accuracy:  
0.9602  
Epoch 13744/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9596  
Epoch 13745/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy:  
0.9592  
Epoch 13746/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0321 - accuracy:  
0.9593  
Epoch 13747/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0324 - accuracy:  
0.9601  
Epoch 13748/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0324 - accuracy:  
0.9607  
Epoch 13749/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9599  
Epoch 13750/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9587  
Epoch 13751/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9604  
Epoch 13752/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9596  
Epoch 13753/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9595  
Epoch 13754/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0318 - accuracy:  
0.9586  
Epoch 13755/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9589  
Epoch 13756/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0319 - accuracy:  
0.9600  
Epoch 13757/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9597  
Epoch 13758/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0320 - accuracy:  
0.9601  
Epoch 13759/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9597  
Epoch 13760/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9594  
Epoch 13761/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9603  
Epoch 13762/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9593  
Epoch 13763/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9593  
Epoch 13764/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0318 - accuracy:  
0.9589  
Epoch 13765/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0322 - accuracy:  
0.9597  
Epoch 13766/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0319 - accuracy:  
0.9593  
Epoch 13767/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9601  
Epoch 13768/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9606  
Epoch 13769/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0314 - accuracy:  
0.9594  
Epoch 13770/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9592  
Epoch 13771/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9598  
Epoch 13772/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9602  
Epoch 13773/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0318 - accuracy:  
0.9588  
Epoch 13774/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0322 - accuracy:  
0.9603  
Epoch 13775/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0317 - accuracy:  
0.9598  
Epoch 13776/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9603  
Epoch 13777/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0316 - accuracy:  
0.9596  
Epoch 13778/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9600  
Epoch 13779/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0319 - accuracy:  
0.9597  
Epoch 13780/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0319 - accuracy:  
0.9596  
Epoch 13781/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0317 - accuracy:  
0.9597  
Epoch 13782/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9601  
Epoch 13783/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy:  
0.9605  
Epoch 13784/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0314 - accuracy:  
0.9594  
Epoch 13785/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0316 - accuracy:  
0.9601  
Epoch 13786/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9596  
Epoch 13787/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9597  
Epoch 13788/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9591  
Epoch 13789/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9592  
Epoch 13790/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9597  
Epoch 13791/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0317 - accuracy:  
0.9594  
Epoch 13792/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9604  
Epoch 13793/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0326 - accuracy:  
0.9598  
Epoch 13794/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9600  
Epoch 13795/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy:  
0.9601  
Epoch 13796/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9597  
Epoch 13797/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0323 - accuracy:  
0.9602  
Epoch 13798/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9596  
Epoch 13799/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0323 - accuracy:  
0.9596  
Epoch 13800/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9596  
Epoch 13801/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9591  
Epoch 13802/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9586  
Epoch 13803/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9597  
Epoch 13804/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9599  
Epoch 13805/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9588  
Epoch 13806/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9595  
Epoch 13807/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0319 - accuracy:  
0.9606  
Epoch 13808/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0320 - accuracy:  
0.9598  
Epoch 13809/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy:  
0.9603  
Epoch 13810/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0315 - accuracy:  
0.9596  
Epoch 13811/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9592  
Epoch 13812/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0319 - accuracy:  
0.9595  
Epoch 13813/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9588  
Epoch 13814/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9594  
Epoch 13815/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9596  
Epoch 13816/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9597  
Epoch 13817/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9598  
Epoch 13818/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0319 - accuracy:  
0.9588  
Epoch 13819/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0318 - accuracy:  
0.9592  
Epoch 13820/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9598  
Epoch 13821/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0317 - accuracy:  
0.9595  
Epoch 13822/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9601  
Epoch 13823/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0320 - accuracy:  
0.9596  
Epoch 13824/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9603  
Epoch 13825/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9594  
Epoch 13826/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9597  
Epoch 13827/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9599  
Epoch 13828/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9600  
Epoch 13829/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0318 - accuracy:  
0.9592  
Epoch 13830/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9605  
Epoch 13831/100000  
2/2 [=====] - 0s 126ms/step - loss: 0.0316 - accuracy:  
0.9598  
Epoch 13832/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9594  
Epoch 13833/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9595  
Epoch 13834/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9596  
Epoch 13835/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy:  
0.9597  
Epoch 13836/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9601  
Epoch 13837/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0323 - accuracy:  
0.9600  
Epoch 13838/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9599  
Epoch 13839/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9602  
Epoch 13840/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9592  
Epoch 13841/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9599  
Epoch 13842/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9584  
Epoch 13843/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9601  
Epoch 13844/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0324 - accuracy:  
0.9593  
Epoch 13845/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0324 - accuracy:  
0.9590  
Epoch 13846/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0318 - accuracy:  
0.9598  
Epoch 13847/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9607  
Epoch 13848/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9591  
Epoch 13849/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9590  
Epoch 13850/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0321 - accuracy:  
0.9594  
Epoch 13851/100000  
2/2 [=====] - 0s 132ms/step - loss: 0.0319 - accuracy:  
0.9595  
Epoch 13852/100000  
2/2 [=====] - 0s 128ms/step - loss: 0.0315 - accuracy:  
0.9586  
Epoch 13853/100000  
2/2 [=====] - 0s 130ms/step - loss: 0.0317 - accuracy:  
0.9590  
Epoch 13854/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0327 - accuracy:  
0.9601  
Epoch 13855/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0321 - accuracy:  
0.9586  
Epoch 13856/100000

2/2 [=====] - 0s 126ms/step - loss: 0.0322 - accuracy:  
0.9606  
Epoch 13857/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9605  
Epoch 13858/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy:  
0.9602  
Epoch 13859/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9589  
Epoch 13860/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9598  
Epoch 13861/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9598  
Epoch 13862/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9595  
Epoch 13863/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0325 - accuracy:  
0.9597  
Epoch 13864/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0320 - accuracy:  
0.9595  
Epoch 13865/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9596  
Epoch 13866/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9607  
Epoch 13867/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0319 - accuracy:  
0.9599  
Epoch 13868/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9597  
Epoch 13869/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9599  
Epoch 13870/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0325 - accuracy:  
0.9599  
Epoch 13871/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0323 - accuracy:  
0.9600  
Epoch 13872/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0321 - accuracy: 0.9600  
Epoch 13873/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy: 0.9600  
Epoch 13874/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy: 0.9589  
Epoch 13875/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0329 - accuracy: 0.9594  
Epoch 13876/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0319 - accuracy: 0.9589  
Epoch 13877/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0326 - accuracy: 0.9594  
Epoch 13878/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0338 - accuracy: 0.9601  
Epoch 13879/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0327 - accuracy: 0.9597  
Epoch 13880/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy: 0.9590  
Epoch 13881/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy: 0.9603  
Epoch 13882/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0334 - accuracy: 0.9596  
Epoch 13883/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy: 0.9592  
Epoch 13884/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0328 - accuracy: 0.9607  
Epoch 13885/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy: 0.9604  
Epoch 13886/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy: 0.9598  
Epoch 13887/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy: 0.9595  
Epoch 13888/100000



2/2 [=====] - 0s 116ms/step - loss: 0.0329 - accuracy: 0.9595  
Epoch 13889/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0336 - accuracy: 0.9593  
Epoch 13890/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy: 0.9600  
Epoch 13891/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy: 0.9589  
Epoch 13892/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy: 0.9603  
Epoch 13893/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy: 0.9607  
Epoch 13894/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0318 - accuracy: 0.9600  
Epoch 13895/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy: 0.9607  
Epoch 13896/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy: 0.9590  
Epoch 13897/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0323 - accuracy: 0.9602  
Epoch 13898/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy: 0.9596  
Epoch 13899/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy: 0.9595  
Epoch 13900/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy: 0.9595  
Epoch 13901/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0322 - accuracy: 0.9595  
Epoch 13902/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0318 - accuracy: 0.9605  
Epoch 13903/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0316 - accuracy: 0.9589  
Epoch 13904/100000

2/2 [=====] - 0s 121ms/step - loss: 0.0317 - accuracy:  
0.9590  
Epoch 13905/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9597  
Epoch 13906/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0323 - accuracy:  
0.9600  
Epoch 13907/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9603  
Epoch 13908/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0322 - accuracy:  
0.9592  
Epoch 13909/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9597  
Epoch 13910/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0321 - accuracy:  
0.9591  
Epoch 13911/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9593  
Epoch 13912/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0339 - accuracy:  
0.9587  
Epoch 13913/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9591  
Epoch 13914/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
0.9610  
Epoch 13915/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9594  
Epoch 13916/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0319 - accuracy:  
0.9587  
Epoch 13917/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9602  
Epoch 13918/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9587  
Epoch 13919/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0322 - accuracy:  
0.9598  
Epoch 13920/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0330 - accuracy:  
0.9603  
Epoch 13921/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy:  
0.9599  
Epoch 13922/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0326 - accuracy:  
0.9592  
Epoch 13923/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9604  
Epoch 13924/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9597  
Epoch 13925/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0320 - accuracy:  
0.9586  
Epoch 13926/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0323 - accuracy:  
0.9595  
Epoch 13927/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9595  
Epoch 13928/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9596  
Epoch 13929/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0328 - accuracy:  
0.9590  
Epoch 13930/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9594  
Epoch 13931/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9597  
Epoch 13932/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9590  
Epoch 13933/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0317 - accuracy:  
0.9595  
Epoch 13934/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9597  
Epoch 13935/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9601  
Epoch 13936/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9602  
Epoch 13937/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9593  
Epoch 13938/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9606  
Epoch 13939/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy:  
0.9589  
Epoch 13940/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9593  
Epoch 13941/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9595  
Epoch 13942/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9598  
Epoch 13943/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9595  
Epoch 13944/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9602  
Epoch 13945/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9605  
Epoch 13946/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy:  
0.9596  
Epoch 13947/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy:  
0.9591  
Epoch 13948/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9601  
Epoch 13949/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0336 - accuracy:  
0.9595  
Epoch 13950/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9594  
Epoch 13951/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0327 - accuracy:  
0.9603  
Epoch 13952/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9596  
Epoch 13953/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0328 - accuracy:  
0.9599  
Epoch 13954/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9600  
Epoch 13955/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9587  
Epoch 13956/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0334 - accuracy:  
0.9593  
Epoch 13957/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9601  
Epoch 13958/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0317 - accuracy:  
0.9586  
Epoch 13959/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9604  
Epoch 13960/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0337 - accuracy:  
0.9599  
Epoch 13961/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0333 - accuracy:  
0.9601  
Epoch 13962/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0324 - accuracy:  
0.9594  
Epoch 13963/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9593  
Epoch 13964/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9593  
Epoch 13965/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9603  
Epoch 13966/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0315 - accuracy:  
0.9596  
Epoch 13967/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9594  
Epoch 13968/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9592  
Epoch 13969/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9596  
Epoch 13970/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9595  
Epoch 13971/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0315 - accuracy:  
0.9592  
Epoch 13972/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9607  
Epoch 13973/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0325 - accuracy:  
0.9599  
Epoch 13974/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9595  
Epoch 13975/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9604  
Epoch 13976/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0325 - accuracy:  
0.9599  
Epoch 13977/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9587  
Epoch 13978/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9604  
Epoch 13979/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9600  
Epoch 13980/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0319 - accuracy:  
0.9594  
Epoch 13981/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9589  
Epoch 13982/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9598  
Epoch 13983/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0338 - accuracy:  
0.9605  
Epoch 13984/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9615  
Epoch 13985/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy:  
0.9600  
Epoch 13986/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0342 - accuracy:  
0.9589  
Epoch 13987/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0329 - accuracy:  
0.9597  
Epoch 13988/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy:  
0.9599  
Epoch 13989/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0317 - accuracy:  
0.9599  
Epoch 13990/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy:  
0.9603  
Epoch 13991/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0327 - accuracy:  
0.9585  
Epoch 13992/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0325 - accuracy:  
0.9598  
Epoch 13993/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9595  
Epoch 13994/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9587  
Epoch 13995/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9600  
Epoch 13996/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9597  
Epoch 13997/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9601  
Epoch 13998/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9589  
Epoch 13999/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9595  
Epoch 14000/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0317 - accuracy:  
0.9588  
Epoch 14001/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9595  
Epoch 14002/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9600  
Epoch 14003/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9595  
Epoch 14004/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9597  
Epoch 14005/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9590  
Epoch 14006/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0310 - accuracy:  
0.9589  
Epoch 14007/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9601  
Epoch 14008/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0322 - accuracy:  
0.9598  
Epoch 14009/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0320 - accuracy:  
0.9598  
Epoch 14010/100000  
2/2 [=====] - 0s 143ms/step - loss: 0.0314 - accuracy:  
0.9596  
Epoch 14011/100000  
2/2 [=====] - 0s 126ms/step - loss: 0.0315 - accuracy:  
0.9596  
Epoch 14012/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0327 - accuracy:  
0.9609  
Epoch 14013/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0319 - accuracy:  
0.9598  
Epoch 14014/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0319 - accuracy:  
0.9600  
Epoch 14015/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9605  
Epoch 14016/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy: 0.9606  
Epoch 14017/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy: 0.9599  
Epoch 14018/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9598  
Epoch 14019/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0317 - accuracy: 0.9593  
Epoch 14020/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy: 0.9601  
Epoch 14021/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy: 0.9587  
Epoch 14022/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy: 0.9597  
Epoch 14023/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy: 0.9595  
Epoch 14024/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy: 0.9590  
Epoch 14025/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0314 - accuracy: 0.9593  
Epoch 14026/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy: 0.9602  
Epoch 14027/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0319 - accuracy: 0.9592  
Epoch 14028/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0314 - accuracy: 0.9599  
Epoch 14029/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0320 - accuracy: 0.9594  
Epoch 14030/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy: 0.9590  
Epoch 14031/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy: 0.9598  
Epoch 14032/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9596  
Epoch 14033/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9593  
Epoch 14034/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9593  
Epoch 14035/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9603  
Epoch 14036/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9588  
Epoch 14037/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0317 - accuracy:  
0.9609  
Epoch 14038/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9596  
Epoch 14039/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0322 - accuracy:  
0.9601  
Epoch 14040/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0319 - accuracy:  
0.9601  
Epoch 14041/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9597  
Epoch 14042/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9593  
Epoch 14043/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9597  
Epoch 14044/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9597  
Epoch 14045/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0323 - accuracy:  
0.9598  
Epoch 14046/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9600  
Epoch 14047/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0317 - accuracy:  
0.9593  
Epoch 14048/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9598  
Epoch 14049/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0320 - accuracy:  
0.9591  
Epoch 14050/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9603  
Epoch 14051/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9594  
Epoch 14052/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0321 - accuracy:  
0.9603  
Epoch 14053/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy:  
0.9604  
Epoch 14054/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9598  
Epoch 14055/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9592  
Epoch 14056/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9600  
Epoch 14057/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy:  
0.9595  
Epoch 14058/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9602  
Epoch 14059/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9598  
Epoch 14060/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9602  
Epoch 14061/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9589  
Epoch 14062/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0319 - accuracy:  
0.9598  
Epoch 14063/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9598  
Epoch 14064/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9599  
Epoch 14065/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0317 - accuracy:  
0.9590  
Epoch 14066/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9597  
Epoch 14067/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9593  
Epoch 14068/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9599  
Epoch 14069/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0324 - accuracy:  
0.9594  
Epoch 14070/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9584  
Epoch 14071/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9598  
Epoch 14072/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0318 - accuracy:  
0.9590  
Epoch 14073/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0320 - accuracy:  
0.9607  
Epoch 14074/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0318 - accuracy:  
0.9598  
Epoch 14075/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9589  
Epoch 14076/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0316 - accuracy:  
0.9595  
Epoch 14077/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9604  
Epoch 14078/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9600  
Epoch 14079/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9593  
Epoch 14080/100000

2/2 [=====] - 0s 125ms/step - loss: 0.0318 - accuracy: 0.9598  
Epoch 14081/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0311 - accuracy: 0.9595  
Epoch 14082/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy: 0.9592  
Epoch 14083/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy: 0.9589  
Epoch 14084/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0317 - accuracy: 0.9587  
Epoch 14085/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0320 - accuracy: 0.9606  
Epoch 14086/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy: 0.9607  
Epoch 14087/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy: 0.9588  
Epoch 14088/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy: 0.9592  
Epoch 14089/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0326 - accuracy: 0.9599  
Epoch 14090/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0324 - accuracy: 0.9594  
Epoch 14091/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy: 0.9591  
Epoch 14092/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0328 - accuracy: 0.9605  
Epoch 14093/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0321 - accuracy: 0.9594  
Epoch 14094/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy: 0.9600  
Epoch 14095/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy: 0.9595  
Epoch 14096/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy: 0.9603  
Epoch 14097/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy: 0.9592  
Epoch 14098/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0324 - accuracy: 0.9596  
Epoch 14099/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy: 0.9591  
Epoch 14100/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0319 - accuracy: 0.9601  
Epoch 14101/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy: 0.9599  
Epoch 14102/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0318 - accuracy: 0.9594  
Epoch 14103/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy: 0.9592  
Epoch 14104/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0320 - accuracy: 0.9595  
Epoch 14105/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9598  
Epoch 14106/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0321 - accuracy: 0.9595  
Epoch 14107/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy: 0.9599  
Epoch 14108/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy: 0.9592  
Epoch 14109/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy: 0.9603  
Epoch 14110/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy: 0.9601  
Epoch 14111/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0318 - accuracy: 0.9596  
Epoch 14112/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9596  
Epoch 14113/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9596  
Epoch 14114/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9591  
Epoch 14115/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0327 - accuracy:  
0.9602  
Epoch 14116/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9598  
Epoch 14117/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9595  
Epoch 14118/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9612  
Epoch 14119/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0323 - accuracy:  
0.9596  
Epoch 14120/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9599  
Epoch 14121/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0352 - accuracy:  
0.9594  
Epoch 14122/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy:  
0.9589  
Epoch 14123/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0335 - accuracy:  
0.9599  
Epoch 14124/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9591  
Epoch 14125/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0342 - accuracy:  
0.9598  
Epoch 14126/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy:  
0.9589  
Epoch 14127/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy:  
0.9603  
Epoch 14128/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9594  
Epoch 14129/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0326 - accuracy:  
0.9595  
Epoch 14130/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9593  
Epoch 14131/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9589  
Epoch 14132/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0324 - accuracy:  
0.9609  
Epoch 14133/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9589  
Epoch 14134/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9600  
Epoch 14135/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0329 - accuracy:  
0.9597  
Epoch 14136/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9591  
Epoch 14137/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy:  
0.9603  
Epoch 14138/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0329 - accuracy:  
0.9595  
Epoch 14139/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9601  
Epoch 14140/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9592  
Epoch 14141/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0331 - accuracy:  
0.9594  
Epoch 14142/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0328 - accuracy:  
0.9594  
Epoch 14143/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9593  
Epoch 14144/100000



2/2 [=====] - 0s 118ms/step - loss: 0.0332 - accuracy: 0.9598  
Epoch 14145/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy: 0.9591  
Epoch 14146/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy: 0.9591  
Epoch 14147/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy: 0.9601  
Epoch 14148/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0329 - accuracy: 0.9591  
Epoch 14149/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy: 0.9591  
Epoch 14150/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0325 - accuracy: 0.9595  
Epoch 14151/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy: 0.9593  
Epoch 14152/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0322 - accuracy: 0.9594  
Epoch 14153/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy: 0.9595  
Epoch 14154/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0320 - accuracy: 0.9605  
Epoch 14155/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy: 0.9596  
Epoch 14156/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0316 - accuracy: 0.9599  
Epoch 14157/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy: 0.9597  
Epoch 14158/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0317 - accuracy: 0.9595  
Epoch 14159/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy: 0.9595  
Epoch 14160/100000

2/2 [=====] - 0s 120ms/step - loss: 0.0321 - accuracy: 0.9597  
Epoch 14161/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy: 0.9594  
Epoch 14162/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy: 0.9601  
Epoch 14163/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0319 - accuracy: 0.9599  
Epoch 14164/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy: 0.9602  
Epoch 14165/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy: 0.9584  
Epoch 14166/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy: 0.9604  
Epoch 14167/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy: 0.9606  
Epoch 14168/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy: 0.9589  
Epoch 14169/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0324 - accuracy: 0.9597  
Epoch 14170/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0316 - accuracy: 0.9591  
Epoch 14171/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0318 - accuracy: 0.9597  
Epoch 14172/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy: 0.9594  
Epoch 14173/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0320 - accuracy: 0.9592  
Epoch 14174/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0319 - accuracy: 0.9601  
Epoch 14175/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy: 0.9599  
Epoch 14176/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy: 0.9594  
Epoch 14177/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy: 0.9598  
Epoch 14178/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy: 0.9585  
Epoch 14179/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0318 - accuracy: 0.9593  
Epoch 14180/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy: 0.9587  
Epoch 14181/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy: 0.9595  
Epoch 14182/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy: 0.9595  
Epoch 14183/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy: 0.9599  
Epoch 14184/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy: 0.9599  
Epoch 14185/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0318 - accuracy: 0.9599  
Epoch 14186/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy: 0.9603  
Epoch 14187/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0317 - accuracy: 0.9600  
Epoch 14188/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy: 0.9592  
Epoch 14189/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy: 0.9601  
Epoch 14190/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0323 - accuracy: 0.9595  
Epoch 14191/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0325 - accuracy: 0.9609  
Epoch 14192/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0325 - accuracy:  
0.9599  
Epoch 14193/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9589  
Epoch 14194/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9590  
Epoch 14195/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9592  
Epoch 14196/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy:  
0.9600  
Epoch 14197/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9596  
Epoch 14198/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9588  
Epoch 14199/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9592  
Epoch 14200/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9593  
Epoch 14201/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9602  
Epoch 14202/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0321 - accuracy:  
0.9597  
Epoch 14203/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9600  
Epoch 14204/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0321 - accuracy:  
0.9600  
Epoch 14205/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9590  
Epoch 14206/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9596  
Epoch 14207/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9592  
Epoch 14208/100000

2/2 [=====] - 0s 119ms/step - loss: 0.0319 - accuracy:  
0.9599  
Epoch 14209/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9593  
Epoch 14210/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9602  
Epoch 14211/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9598  
Epoch 14212/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0318 - accuracy:  
0.9597  
Epoch 14213/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9590  
Epoch 14214/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9588  
Epoch 14215/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0318 - accuracy:  
0.9596  
Epoch 14216/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9593  
Epoch 14217/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9597  
Epoch 14218/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9602  
Epoch 14219/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0314 - accuracy:  
0.9589  
Epoch 14220/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9595  
Epoch 14221/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0317 - accuracy:  
0.9597  
Epoch 14222/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9591  
Epoch 14223/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0324 - accuracy:  
0.9605  
Epoch 14224/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0323 - accuracy:  
0.9593  
Epoch 14225/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9599  
Epoch 14226/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0332 - accuracy:  
0.9602  
Epoch 14227/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy:  
0.9590  
Epoch 14228/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9597  
Epoch 14229/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9598  
Epoch 14230/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9599  
Epoch 14231/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0318 - accuracy:  
0.9603  
Epoch 14232/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0320 - accuracy:  
0.9606  
Epoch 14233/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9603  
Epoch 14234/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0324 - accuracy:  
0.9599  
Epoch 14235/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy:  
0.9590  
Epoch 14236/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9589  
Epoch 14237/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9596  
Epoch 14238/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0312 - accuracy:  
0.9600  
Epoch 14239/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9604  
Epoch 14240/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9594  
Epoch 14241/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9591  
Epoch 14242/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0324 - accuracy:  
0.9602  
Epoch 14243/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0315 - accuracy:  
0.9596  
Epoch 14244/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9592  
Epoch 14245/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9590  
Epoch 14246/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0328 - accuracy:  
0.9607  
Epoch 14247/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0360 - accuracy:  
0.9588  
Epoch 14248/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0367 - accuracy:  
0.9598  
Epoch 14249/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0350 - accuracy:  
0.9594  
Epoch 14250/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy:  
0.9597  
Epoch 14251/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0344 - accuracy:  
0.9590  
Epoch 14252/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0336 - accuracy:  
0.9591  
Epoch 14253/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0357 - accuracy:  
0.9595  
Epoch 14254/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
0.9594  
Epoch 14255/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0338 - accuracy:  
0.9593  
Epoch 14256/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0334 - accuracy:  
0.9604  
Epoch 14257/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0335 - accuracy:  
0.9586  
Epoch 14258/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9594  
Epoch 14259/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9595  
Epoch 14260/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0337 - accuracy:  
0.9599  
Epoch 14261/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9598  
Epoch 14262/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9596  
Epoch 14263/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9592  
Epoch 14264/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0320 - accuracy:  
0.9590  
Epoch 14265/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9601  
Epoch 14266/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9591  
Epoch 14267/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0325 - accuracy:  
0.9589  
Epoch 14268/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0319 - accuracy:  
0.9601  
Epoch 14269/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy:  
0.9597  
Epoch 14270/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9598  
Epoch 14271/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0324 - accuracy:  
0.9595  
Epoch 14272/100000



2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy: 0.9595  
Epoch 14273/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy: 0.9584  
Epoch 14274/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy: 0.9604  
Epoch 14275/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0315 - accuracy: 0.9582  
Epoch 14276/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0317 - accuracy: 0.9591  
Epoch 14277/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9593  
Epoch 14278/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy: 0.9589  
Epoch 14279/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0319 - accuracy: 0.9601  
Epoch 14280/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy: 0.9590  
Epoch 14281/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy: 0.9597  
Epoch 14282/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0319 - accuracy: 0.9601  
Epoch 14283/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy: 0.9598  
Epoch 14284/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0319 - accuracy: 0.9592  
Epoch 14285/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy: 0.9600  
Epoch 14286/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy: 0.9598  
Epoch 14287/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0322 - accuracy: 0.9599  
Epoch 14288/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy: 0.9590  
Epoch 14289/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy: 0.9593  
Epoch 14290/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy: 0.9598  
Epoch 14291/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0317 - accuracy: 0.9599  
Epoch 14292/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9595  
Epoch 14293/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy: 0.9591  
Epoch 14294/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy: 0.9596  
Epoch 14295/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0319 - accuracy: 0.9602  
Epoch 14296/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0319 - accuracy: 0.9599  
Epoch 14297/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy: 0.9592  
Epoch 14298/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy: 0.9595  
Epoch 14299/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9594  
Epoch 14300/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy: 0.9589  
Epoch 14301/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9591  
Epoch 14302/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy: 0.9595  
Epoch 14303/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy: 0.9593  
Epoch 14304/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0312 - accuracy: 0.9593  
Epoch 14305/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy: 0.9604  
Epoch 14306/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9595  
Epoch 14307/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0314 - accuracy: 0.9597  
Epoch 14308/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9596  
Epoch 14309/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy: 0.9602  
Epoch 14310/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy: 0.9601  
Epoch 14311/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0313 - accuracy: 0.9596  
Epoch 14312/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy: 0.9596  
Epoch 14313/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9595  
Epoch 14314/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy: 0.9591  
Epoch 14315/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy: 0.9586  
Epoch 14316/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9599  
Epoch 14317/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy: 0.9601  
Epoch 14318/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy: 0.9602  
Epoch 14319/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0320 - accuracy: 0.9592  
Epoch 14320/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9600  
Epoch 14321/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0317 - accuracy:  
0.9594  
Epoch 14322/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9601  
Epoch 14323/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0313 - accuracy:  
0.9591  
Epoch 14324/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9593  
Epoch 14325/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0317 - accuracy:  
0.9596  
Epoch 14326/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9594  
Epoch 14327/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9596  
Epoch 14328/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9600  
Epoch 14329/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy:  
0.9600  
Epoch 14330/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9589  
Epoch 14331/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0327 - accuracy:  
0.9597  
Epoch 14332/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9597  
Epoch 14333/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0319 - accuracy:  
0.9598  
Epoch 14334/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9589  
Epoch 14335/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0320 - accuracy:  
0.9596  
Epoch 14336/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9594  
Epoch 14337/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0317 - accuracy:  
0.9596  
Epoch 14338/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0316 - accuracy:  
0.9601  
Epoch 14339/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9600  
Epoch 14340/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9605  
Epoch 14341/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9596  
Epoch 14342/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9601  
Epoch 14343/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9607  
Epoch 14344/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0336 - accuracy:  
0.9586  
Epoch 14345/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0357 - accuracy:  
0.9597  
Epoch 14346/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0345 - accuracy:  
0.9601  
Epoch 14347/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0338 - accuracy:  
0.9597  
Epoch 14348/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0351 - accuracy:  
0.9602  
Epoch 14349/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0359 - accuracy:  
0.9597  
Epoch 14350/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0361 - accuracy:  
0.9587  
Epoch 14351/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0349 - accuracy:  
0.9597  
Epoch 14352/100000

2/2 [=====] - 0s 121ms/step - loss: 0.0344 - accuracy: 0.9588  
Epoch 14353/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0339 - accuracy: 0.9598  
Epoch 14354/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0332 - accuracy: 0.9594  
Epoch 14355/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0342 - accuracy: 0.9606  
Epoch 14356/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy: 0.9593  
Epoch 14357/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0342 - accuracy: 0.9605  
Epoch 14358/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy: 0.9597  
Epoch 14359/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy: 0.9593  
Epoch 14360/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy: 0.9595  
Epoch 14361/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0322 - accuracy: 0.9593  
Epoch 14362/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy: 0.9589  
Epoch 14363/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy: 0.9600  
Epoch 14364/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0320 - accuracy: 0.9591  
Epoch 14365/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy: 0.9587  
Epoch 14366/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy: 0.9599  
Epoch 14367/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9588  
Epoch 14368/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9596  
Epoch 14369/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0322 - accuracy:  
0.9601  
Epoch 14370/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9599  
Epoch 14371/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9598  
Epoch 14372/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9601  
Epoch 14373/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9588  
Epoch 14374/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0329 - accuracy:  
0.9604  
Epoch 14375/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9594  
Epoch 14376/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9596  
Epoch 14377/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9600  
Epoch 14378/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0329 - accuracy:  
0.9599  
Epoch 14379/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9601  
Epoch 14380/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9604  
Epoch 14381/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9585  
Epoch 14382/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9589  
Epoch 14383/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9605  
Epoch 14384/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0325 - accuracy:  
0.9599  
Epoch 14385/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9593  
Epoch 14386/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy:  
0.9594  
Epoch 14387/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0322 - accuracy:  
0.9602  
Epoch 14388/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9599  
Epoch 14389/100000  
2/2 [=====] - 0s 126ms/step - loss: 0.0323 - accuracy:  
0.9596  
Epoch 14390/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9589  
Epoch 14391/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0337 - accuracy:  
0.9594  
Epoch 14392/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0320 - accuracy:  
0.9581  
Epoch 14393/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9587  
Epoch 14394/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0324 - accuracy:  
0.9601  
Epoch 14395/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0330 - accuracy:  
0.9595  
Epoch 14396/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9595  
Epoch 14397/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0323 - accuracy:  
0.9587  
Epoch 14398/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0320 - accuracy:  
0.9592  
Epoch 14399/100000  
2/2 [=====] - 0s 127ms/step - loss: 0.0320 - accuracy:  
0.9596  
Epoch 14400/100000



2/2 [=====] - 0s 124ms/step - loss: 0.0325 - accuracy:  
0.9613  
Epoch 14401/100000  
2/2 [=====] - 0s 128ms/step - loss: 0.0316 - accuracy:  
0.9591  
Epoch 14402/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0317 - accuracy:  
0.9593  
Epoch 14403/100000  
2/2 [=====] - 0s 128ms/step - loss: 0.0322 - accuracy:  
0.9598  
Epoch 14404/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0340 - accuracy:  
0.9605  
Epoch 14405/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0339 - accuracy:  
0.9598  
Epoch 14406/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9603  
Epoch 14407/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9589  
Epoch 14408/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0333 - accuracy:  
0.9592  
Epoch 14409/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9598  
Epoch 14410/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9602  
Epoch 14411/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9594  
Epoch 14412/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9606  
Epoch 14413/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0319 - accuracy:  
0.9593  
Epoch 14414/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9602  
Epoch 14415/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9592  
Epoch 14416/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy: 0.9602  
Epoch 14417/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy: 0.9600  
Epoch 14418/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy: 0.9582  
Epoch 14419/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy: 0.9601  
Epoch 14420/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy: 0.9606  
Epoch 14421/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy: 0.9593  
Epoch 14422/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy: 0.9594  
Epoch 14423/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy: 0.9601  
Epoch 14424/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0314 - accuracy: 0.9601  
Epoch 14425/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy: 0.9596  
Epoch 14426/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy: 0.9599  
Epoch 14427/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9594  
Epoch 14428/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy: 0.9604  
Epoch 14429/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy: 0.9604  
Epoch 14430/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0315 - accuracy: 0.9592  
Epoch 14431/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0316 - accuracy: 0.9591  
Epoch 14432/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy: 0.9595  
Epoch 14433/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0316 - accuracy: 0.9596  
Epoch 14434/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy: 0.9595  
Epoch 14435/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy: 0.9590  
Epoch 14436/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy: 0.9594  
Epoch 14437/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy: 0.9588  
Epoch 14438/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy: 0.9593  
Epoch 14439/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy: 0.9592  
Epoch 14440/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0314 - accuracy: 0.9596  
Epoch 14441/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy: 0.9593  
Epoch 14442/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0315 - accuracy: 0.9600  
Epoch 14443/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy: 0.9605  
Epoch 14444/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0320 - accuracy: 0.9604  
Epoch 14445/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy: 0.9591  
Epoch 14446/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy: 0.9598  
Epoch 14447/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy: 0.9597  
Epoch 14448/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9600  
Epoch 14449/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0321 - accuracy:  
0.9592  
Epoch 14450/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9601  
Epoch 14451/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0320 - accuracy:  
0.9591  
Epoch 14452/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9597  
Epoch 14453/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0318 - accuracy:  
0.9601  
Epoch 14454/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9592  
Epoch 14455/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9595  
Epoch 14456/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0315 - accuracy:  
0.9605  
Epoch 14457/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0316 - accuracy:  
0.9596  
Epoch 14458/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9590  
Epoch 14459/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9601  
Epoch 14460/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9599  
Epoch 14461/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9592  
Epoch 14462/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9591  
Epoch 14463/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0312 - accuracy:  
0.9591  
Epoch 14464/100000

2/2 [=====] - 0s 119ms/step - loss: 0.0313 - accuracy:  
0.9593  
Epoch 14465/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9591  
Epoch 14466/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9600  
Epoch 14467/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9599  
Epoch 14468/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0319 - accuracy:  
0.9600  
Epoch 14469/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9596  
Epoch 14470/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9586  
Epoch 14471/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9603  
Epoch 14472/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9583  
Epoch 14473/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9593  
Epoch 14474/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9598  
Epoch 14475/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0315 - accuracy:  
0.9597  
Epoch 14476/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9614  
Epoch 14477/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9601  
Epoch 14478/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9589  
Epoch 14479/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0317 - accuracy:  
0.9599  
Epoch 14480/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0321 - accuracy:  
0.9604  
Epoch 14481/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9592  
Epoch 14482/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0316 - accuracy:  
0.9600  
Epoch 14483/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9591  
Epoch 14484/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9589  
Epoch 14485/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy:  
0.9594  
Epoch 14486/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9596  
Epoch 14487/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0320 - accuracy:  
0.9598  
Epoch 14488/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9597  
Epoch 14489/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9589  
Epoch 14490/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9599  
Epoch 14491/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9599  
Epoch 14492/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0317 - accuracy:  
0.9601  
Epoch 14493/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9593  
Epoch 14494/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9597  
Epoch 14495/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0321 - accuracy:  
0.9601  
Epoch 14496/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0319 - accuracy: 0.9608  
Epoch 14497/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy: 0.9602  
Epoch 14498/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy: 0.9594  
Epoch 14499/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9592  
Epoch 14500/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0316 - accuracy: 0.9597  
Epoch 14501/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy: 0.9598  
Epoch 14502/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy: 0.9594  
Epoch 14503/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0319 - accuracy: 0.9603  
Epoch 14504/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy: 0.9595  
Epoch 14505/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0323 - accuracy: 0.9600  
Epoch 14506/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy: 0.9597  
Epoch 14507/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy: 0.9592  
Epoch 14508/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0321 - accuracy: 0.9602  
Epoch 14509/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy: 0.9593  
Epoch 14510/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy: 0.9587  
Epoch 14511/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0321 - accuracy: 0.9592  
Epoch 14512/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9596  
Epoch 14513/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9594  
Epoch 14514/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0315 - accuracy:  
0.9593  
Epoch 14515/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0315 - accuracy:  
0.9587  
Epoch 14516/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9594  
Epoch 14517/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9598  
Epoch 14518/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9592  
Epoch 14519/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9591  
Epoch 14520/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9592  
Epoch 14521/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9590  
Epoch 14522/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9601  
Epoch 14523/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0319 - accuracy:  
0.9591  
Epoch 14524/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9602  
Epoch 14525/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0323 - accuracy:  
0.9602  
Epoch 14526/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0320 - accuracy:  
0.9591  
Epoch 14527/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9591  
Epoch 14528/100000



2/2 [=====] - 0s 123ms/step - loss: 0.0320 - accuracy:  
0.9600  
Epoch 14529/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9596  
Epoch 14530/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0318 - accuracy:  
0.9602  
Epoch 14531/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0327 - accuracy:  
0.9606  
Epoch 14532/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0323 - accuracy:  
0.9600  
Epoch 14533/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9596  
Epoch 14534/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9602  
Epoch 14535/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
0.9605  
Epoch 14536/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0353 - accuracy:  
0.9598  
Epoch 14537/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0338 - accuracy:  
0.9602  
Epoch 14538/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
0.9591  
Epoch 14539/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0349 - accuracy:  
0.9601  
Epoch 14540/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0342 - accuracy:  
0.9606  
Epoch 14541/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9591  
Epoch 14542/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9610  
Epoch 14543/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0334 - accuracy:  
0.9590  
Epoch 14544/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy: 0.9588  
Epoch 14545/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy: 0.9598  
Epoch 14546/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0326 - accuracy: 0.9599  
Epoch 14547/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy: 0.9598  
Epoch 14548/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0335 - accuracy: 0.9602  
Epoch 14549/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy: 0.9591  
Epoch 14550/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy: 0.9594  
Epoch 14551/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0325 - accuracy: 0.9604  
Epoch 14552/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy: 0.9591  
Epoch 14553/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy: 0.9594  
Epoch 14554/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0319 - accuracy: 0.9598  
Epoch 14555/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy: 0.9599  
Epoch 14556/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0319 - accuracy: 0.9589  
Epoch 14557/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy: 0.9597  
Epoch 14558/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy: 0.9600  
Epoch 14559/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy: 0.9600  
Epoch 14560/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9598  
Epoch 14561/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9594  
Epoch 14562/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9600  
Epoch 14563/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9602  
Epoch 14564/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9596  
Epoch 14565/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9600  
Epoch 14566/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9596  
Epoch 14567/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9595  
Epoch 14568/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9595  
Epoch 14569/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9596  
Epoch 14570/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0311 - accuracy:  
0.9598  
Epoch 14571/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy:  
0.9594  
Epoch 14572/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9591  
Epoch 14573/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0320 - accuracy:  
0.9586  
Epoch 14574/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9598  
Epoch 14575/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9603  
Epoch 14576/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9600  
Epoch 14577/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy:  
0.9585  
Epoch 14578/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9597  
Epoch 14579/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9600  
Epoch 14580/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0320 - accuracy:  
0.9600  
Epoch 14581/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9600  
Epoch 14582/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0320 - accuracy:  
0.9604  
Epoch 14583/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9601  
Epoch 14584/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9594  
Epoch 14585/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0317 - accuracy:  
0.9589  
Epoch 14586/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9602  
Epoch 14587/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0318 - accuracy:  
0.9596  
Epoch 14588/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9592  
Epoch 14589/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0322 - accuracy:  
0.9602  
Epoch 14590/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9597  
Epoch 14591/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9602  
Epoch 14592/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9614  
Epoch 14593/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9584  
Epoch 14594/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0319 - accuracy:  
0.9596  
Epoch 14595/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0334 - accuracy:  
0.9598  
Epoch 14596/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9598  
Epoch 14597/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9603  
Epoch 14598/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9594  
Epoch 14599/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0329 - accuracy:  
0.9598  
Epoch 14600/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0320 - accuracy:  
0.9591  
Epoch 14601/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9587  
Epoch 14602/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0321 - accuracy:  
0.9598  
Epoch 14603/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0329 - accuracy:  
0.9605  
Epoch 14604/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy:  
0.9587  
Epoch 14605/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy:  
0.9606  
Epoch 14606/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0332 - accuracy:  
0.9601  
Epoch 14607/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9593  
Epoch 14608/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy: 0.9595  
Epoch 14609/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0333 - accuracy: 0.9591  
Epoch 14610/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0335 - accuracy: 0.9600  
Epoch 14611/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy: 0.9594  
Epoch 14612/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy: 0.9588  
Epoch 14613/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy: 0.9587  
Epoch 14614/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0327 - accuracy: 0.9595  
Epoch 14615/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy: 0.9591  
Epoch 14616/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0320 - accuracy: 0.9595  
Epoch 14617/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy: 0.9594  
Epoch 14618/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy: 0.9595  
Epoch 14619/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy: 0.9594  
Epoch 14620/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy: 0.9598  
Epoch 14621/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy: 0.9589  
Epoch 14622/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy: 0.9604  
Epoch 14623/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy: 0.9598  
Epoch 14624/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9600  
Epoch 14625/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9595  
Epoch 14626/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9597  
Epoch 14627/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0322 - accuracy:  
0.9604  
Epoch 14628/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9592  
Epoch 14629/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9597  
Epoch 14630/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9605  
Epoch 14631/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0315 - accuracy:  
0.9601  
Epoch 14632/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9596  
Epoch 14633/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9601  
Epoch 14634/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9598  
Epoch 14635/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9595  
Epoch 14636/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0314 - accuracy:  
0.9599  
Epoch 14637/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9609  
Epoch 14638/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9588  
Epoch 14639/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9598  
Epoch 14640/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9605  
Epoch 14641/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9594  
Epoch 14642/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9599  
Epoch 14643/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9593  
Epoch 14644/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0325 - accuracy:  
0.9597  
Epoch 14645/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy:  
0.9590  
Epoch 14646/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9589  
Epoch 14647/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9595  
Epoch 14648/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9595  
Epoch 14649/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy:  
0.9589  
Epoch 14650/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9594  
Epoch 14651/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9595  
Epoch 14652/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0319 - accuracy:  
0.9595  
Epoch 14653/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9596  
Epoch 14654/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0326 - accuracy:  
0.9597  
Epoch 14655/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9598  
Epoch 14656/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9602  
Epoch 14657/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9592  
Epoch 14658/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0324 - accuracy:  
0.9591  
Epoch 14659/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0320 - accuracy:  
0.9592  
Epoch 14660/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0323 - accuracy:  
0.9594  
Epoch 14661/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9604  
Epoch 14662/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy:  
0.9609  
Epoch 14663/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0328 - accuracy:  
0.9598  
Epoch 14664/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9602  
Epoch 14665/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9599  
Epoch 14666/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0321 - accuracy:  
0.9597  
Epoch 14667/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0322 - accuracy:  
0.9592  
Epoch 14668/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0318 - accuracy:  
0.9595  
Epoch 14669/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0318 - accuracy:  
0.9595  
Epoch 14670/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9603  
Epoch 14671/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9593  
Epoch 14672/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9592  
Epoch 14673/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy: 0.9597  
Epoch 14674/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy: 0.9600  
Epoch 14675/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0318 - accuracy: 0.9593  
Epoch 14676/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy: 0.9600  
Epoch 14677/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy: 0.9595  
Epoch 14678/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy: 0.9595  
Epoch 14679/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy: 0.9593  
Epoch 14680/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy: 0.9598  
Epoch 14681/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy: 0.9600  
Epoch 14682/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0314 - accuracy: 0.9589  
Epoch 14683/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy: 0.9593  
Epoch 14684/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy: 0.9588  
Epoch 14685/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy: 0.9596  
Epoch 14686/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy: 0.9603  
Epoch 14687/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0320 - accuracy: 0.9603  
Epoch 14688/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9593  
Epoch 14689/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9593  
Epoch 14690/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9600  
Epoch 14691/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9592  
Epoch 14692/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9602  
Epoch 14693/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9597  
Epoch 14694/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9594  
Epoch 14695/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9600  
Epoch 14696/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9601  
Epoch 14697/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9598  
Epoch 14698/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9602  
Epoch 14699/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0315 - accuracy:  
0.9593  
Epoch 14700/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9604  
Epoch 14701/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9587  
Epoch 14702/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9592  
Epoch 14703/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9597  
Epoch 14704/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9589  
Epoch 14705/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9608  
Epoch 14706/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0319 - accuracy:  
0.9601  
Epoch 14707/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9597  
Epoch 14708/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9595  
Epoch 14709/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0315 - accuracy:  
0.9592  
Epoch 14710/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9591  
Epoch 14711/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9598  
Epoch 14712/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0323 - accuracy:  
0.9606  
Epoch 14713/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9594  
Epoch 14714/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0317 - accuracy:  
0.9605  
Epoch 14715/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9593  
Epoch 14716/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9597  
Epoch 14717/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9600  
Epoch 14718/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9596  
Epoch 14719/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0332 - accuracy:  
0.9602  
Epoch 14720/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy: 0.9597  
Epoch 14721/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy: 0.9603  
Epoch 14722/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0337 - accuracy: 0.9596  
Epoch 14723/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0327 - accuracy: 0.9602  
Epoch 14724/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy: 0.9590  
Epoch 14725/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0324 - accuracy: 0.9596  
Epoch 14726/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy: 0.9588  
Epoch 14727/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0320 - accuracy: 0.9600  
Epoch 14728/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0316 - accuracy: 0.9592  
Epoch 14729/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0316 - accuracy: 0.9587  
Epoch 14730/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0326 - accuracy: 0.9596  
Epoch 14731/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0315 - accuracy: 0.9596  
Epoch 14732/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy: 0.9595  
Epoch 14733/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy: 0.9595  
Epoch 14734/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy: 0.9599  
Epoch 14735/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy: 0.9599  
Epoch 14736/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9596  
Epoch 14737/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9598  
Epoch 14738/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0321 - accuracy:  
0.9589  
Epoch 14739/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9598  
Epoch 14740/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0321 - accuracy:  
0.9593  
Epoch 14741/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9611  
Epoch 14742/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0316 - accuracy:  
0.9595  
Epoch 14743/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9589  
Epoch 14744/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0321 - accuracy:  
0.9589  
Epoch 14745/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9596  
Epoch 14746/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9603  
Epoch 14747/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0320 - accuracy:  
0.9596  
Epoch 14748/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9607  
Epoch 14749/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9593  
Epoch 14750/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0320 - accuracy:  
0.9597  
Epoch 14751/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9593  
Epoch 14752/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0319 - accuracy: 0.9594  
Epoch 14753/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy: 0.9586  
Epoch 14754/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy: 0.9600  
Epoch 14755/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0323 - accuracy: 0.9592  
Epoch 14756/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy: 0.9598  
Epoch 14757/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy: 0.9597  
Epoch 14758/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy: 0.9604  
Epoch 14759/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy: 0.9601  
Epoch 14760/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy: 0.9594  
Epoch 14761/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0321 - accuracy: 0.9589  
Epoch 14762/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy: 0.9601  
Epoch 14763/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0343 - accuracy: 0.9598  
Epoch 14764/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy: 0.9586  
Epoch 14765/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0350 - accuracy: 0.9600  
Epoch 14766/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0345 - accuracy: 0.9589  
Epoch 14767/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy: 0.9594  
Epoch 14768/100000

2/2 [=====] - 0s 120ms/step - loss: 0.0329 - accuracy: 0.9594  
Epoch 14769/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0328 - accuracy: 0.9591  
Epoch 14770/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0328 - accuracy: 0.9600  
Epoch 14771/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0323 - accuracy: 0.9591  
Epoch 14772/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy: 0.9593  
Epoch 14773/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy: 0.9596  
Epoch 14774/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0326 - accuracy: 0.9599  
Epoch 14775/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0329 - accuracy: 0.9595  
Epoch 14776/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0318 - accuracy: 0.9601  
Epoch 14777/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy: 0.9605  
Epoch 14778/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9592  
Epoch 14779/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0312 - accuracy: 0.9592  
Epoch 14780/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy: 0.9602  
Epoch 14781/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy: 0.9593  
Epoch 14782/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9595  
Epoch 14783/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy: 0.9596  
Epoch 14784/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy: 0.9595  
Epoch 14785/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy: 0.9602  
Epoch 14786/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy: 0.9601  
Epoch 14787/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy: 0.9601  
Epoch 14788/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9589  
Epoch 14789/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy: 0.9592  
Epoch 14790/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy: 0.9603  
Epoch 14791/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy: 0.9597  
Epoch 14792/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0315 - accuracy: 0.9605  
Epoch 14793/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy: 0.9590  
Epoch 14794/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9596  
Epoch 14795/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy: 0.9588  
Epoch 14796/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy: 0.9595  
Epoch 14797/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy: 0.9604  
Epoch 14798/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy: 0.9592  
Epoch 14799/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy: 0.9597  
Epoch 14800/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy: 0.9596  
Epoch 14801/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy: 0.9605  
Epoch 14802/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy: 0.9597  
Epoch 14803/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy: 0.9591  
Epoch 14804/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0319 - accuracy: 0.9602  
Epoch 14805/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0316 - accuracy: 0.9603  
Epoch 14806/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0310 - accuracy: 0.9593  
Epoch 14807/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9600  
Epoch 14808/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0313 - accuracy: 0.9602  
Epoch 14809/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9592  
Epoch 14810/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy: 0.9607  
Epoch 14811/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy: 0.9592  
Epoch 14812/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy: 0.9599  
Epoch 14813/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy: 0.9592  
Epoch 14814/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy: 0.9601  
Epoch 14815/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy: 0.9596  
Epoch 14816/100000

2/2 [=====] - 0s 120ms/step - loss: 0.0318 - accuracy:  
0.9594  
Epoch 14817/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9589  
Epoch 14818/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9595  
Epoch 14819/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9602  
Epoch 14820/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9594  
Epoch 14821/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9593  
Epoch 14822/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9596  
Epoch 14823/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0322 - accuracy:  
0.9603  
Epoch 14824/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9593  
Epoch 14825/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9602  
Epoch 14826/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0314 - accuracy:  
0.9588  
Epoch 14827/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0319 - accuracy:  
0.9600  
Epoch 14828/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9595  
Epoch 14829/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0314 - accuracy:  
0.9600  
Epoch 14830/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0318 - accuracy:  
0.9600  
Epoch 14831/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy:  
0.9594  
Epoch 14832/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9609  
Epoch 14833/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0314 - accuracy:  
0.9586  
Epoch 14834/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0319 - accuracy:  
0.9596  
Epoch 14835/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9592  
Epoch 14836/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9598  
Epoch 14837/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9598  
Epoch 14838/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9593  
Epoch 14839/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0322 - accuracy:  
0.9598  
Epoch 14840/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0334 - accuracy:  
0.9587  
Epoch 14841/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9589  
Epoch 14842/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9601  
Epoch 14843/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9599  
Epoch 14844/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0340 - accuracy:  
0.9589  
Epoch 14845/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0319 - accuracy:  
0.9597  
Epoch 14846/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9596  
Epoch 14847/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9585  
Epoch 14848/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy:  
0.9595  
Epoch 14849/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9596  
Epoch 14850/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9604  
Epoch 14851/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy:  
0.9596  
Epoch 14852/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0339 - accuracy:  
0.9593  
Epoch 14853/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9595  
Epoch 14854/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy:  
0.9597  
Epoch 14855/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0329 - accuracy:  
0.9597  
Epoch 14856/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0331 - accuracy:  
0.9600  
Epoch 14857/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9603  
Epoch 14858/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9599  
Epoch 14859/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9592  
Epoch 14860/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9596  
Epoch 14861/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9600  
Epoch 14862/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9605  
Epoch 14863/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9598  
Epoch 14864/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9595  
Epoch 14865/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9592  
Epoch 14866/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0319 - accuracy:  
0.9595  
Epoch 14867/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9595  
Epoch 14868/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy:  
0.9604  
Epoch 14869/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0315 - accuracy:  
0.9598  
Epoch 14870/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9595  
Epoch 14871/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9606  
Epoch 14872/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9601  
Epoch 14873/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9599  
Epoch 14874/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy:  
0.9596  
Epoch 14875/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9589  
Epoch 14876/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9590  
Epoch 14877/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0317 - accuracy:  
0.9595  
Epoch 14878/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9598  
Epoch 14879/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0321 - accuracy:  
0.9600  
Epoch 14880/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9595  
Epoch 14881/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0318 - accuracy:  
0.9585  
Epoch 14882/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0320 - accuracy:  
0.9604  
Epoch 14883/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9592  
Epoch 14884/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0316 - accuracy:  
0.9601  
Epoch 14885/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9599  
Epoch 14886/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9585  
Epoch 14887/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9605  
Epoch 14888/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy:  
0.9599  
Epoch 14889/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9602  
Epoch 14890/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0318 - accuracy:  
0.9605  
Epoch 14891/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0320 - accuracy:  
0.9589  
Epoch 14892/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9599  
Epoch 14893/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9586  
Epoch 14894/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9592  
Epoch 14895/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0338 - accuracy:  
0.9598  
Epoch 14896/100000

2/2 [=====] - 0s 120ms/step - loss: 0.0345 - accuracy:  
0.9604  
Epoch 14897/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0324 - accuracy:  
0.9598  
Epoch 14898/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9594  
Epoch 14899/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9593  
Epoch 14900/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9601  
Epoch 14901/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0326 - accuracy:  
0.9598  
Epoch 14902/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9603  
Epoch 14903/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9601  
Epoch 14904/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0321 - accuracy:  
0.9601  
Epoch 14905/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9593  
Epoch 14906/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9593  
Epoch 14907/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0317 - accuracy:  
0.9600  
Epoch 14908/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9604  
Epoch 14909/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy:  
0.9599  
Epoch 14910/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9597  
Epoch 14911/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9601  
Epoch 14912/100000



2/2 [=====] - 0s 119ms/step - loss: 0.0320 - accuracy:  
0.9607  
Epoch 14913/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9599  
Epoch 14914/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9600  
Epoch 14915/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0314 - accuracy:  
0.9592  
Epoch 14916/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9598  
Epoch 14917/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9602  
Epoch 14918/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0329 - accuracy:  
0.9596  
Epoch 14919/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy:  
0.9594  
Epoch 14920/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0323 - accuracy:  
0.9595  
Epoch 14921/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9593  
Epoch 14922/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9594  
Epoch 14923/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0319 - accuracy:  
0.9605  
Epoch 14924/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0318 - accuracy:  
0.9594  
Epoch 14925/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0311 - accuracy:  
0.9595  
Epoch 14926/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0319 - accuracy:  
0.9602  
Epoch 14927/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0314 - accuracy:  
0.9585  
Epoch 14928/100000

2/2 [=====] - 0s 124ms/step - loss: 0.0316 - accuracy:  
0.9597  
Epoch 14929/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0320 - accuracy:  
0.9601  
Epoch 14930/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0316 - accuracy:  
0.9598  
Epoch 14931/100000  
2/2 [=====] - 0s 130ms/step - loss: 0.0316 - accuracy:  
0.9588  
Epoch 14932/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0315 - accuracy:  
0.9597  
Epoch 14933/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0329 - accuracy:  
0.9592  
Epoch 14934/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9600  
Epoch 14935/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9599  
Epoch 14936/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0335 - accuracy:  
0.9601  
Epoch 14937/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0334 - accuracy:  
0.9590  
Epoch 14938/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9602  
Epoch 14939/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9597  
Epoch 14940/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9587  
Epoch 14941/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9597  
Epoch 14942/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9601  
Epoch 14943/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy:  
0.9602  
Epoch 14944/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9598  
Epoch 14945/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9595  
Epoch 14946/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0313 - accuracy:  
0.9593  
Epoch 14947/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9596  
Epoch 14948/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9598  
Epoch 14949/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0318 - accuracy:  
0.9595  
Epoch 14950/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9594  
Epoch 14951/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0319 - accuracy:  
0.9597  
Epoch 14952/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9596  
Epoch 14953/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0314 - accuracy:  
0.9595  
Epoch 14954/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9591  
Epoch 14955/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9602  
Epoch 14956/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9609  
Epoch 14957/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9594  
Epoch 14958/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9603  
Epoch 14959/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy:  
0.9600  
Epoch 14960/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9595  
Epoch 14961/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9595  
Epoch 14962/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0320 - accuracy:  
0.9601  
Epoch 14963/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy:  
0.9588  
Epoch 14964/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9599  
Epoch 14965/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9598  
Epoch 14966/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0327 - accuracy:  
0.9607  
Epoch 14967/100000  
2/2 [=====] - 0s 126ms/step - loss: 0.0325 - accuracy:  
0.9593  
Epoch 14968/100000  
2/2 [=====] - 0s 131ms/step - loss: 0.0325 - accuracy:  
0.9605  
Epoch 14969/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0318 - accuracy:  
0.9593  
Epoch 14970/100000  
2/2 [=====] - 0s 126ms/step - loss: 0.0329 - accuracy:  
0.9596  
Epoch 14971/100000  
2/2 [=====] - 0s 134ms/step - loss: 0.0324 - accuracy:  
0.9597  
Epoch 14972/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9594  
Epoch 14973/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9607  
Epoch 14974/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9596  
Epoch 14975/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9598  
Epoch 14976/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0318 - accuracy:  
0.9604  
Epoch 14977/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0320 - accuracy:  
0.9603  
Epoch 14978/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9594  
Epoch 14979/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0321 - accuracy:  
0.9593  
Epoch 14980/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0319 - accuracy:  
0.9603  
Epoch 14981/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9602  
Epoch 14982/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9599  
Epoch 14983/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9597  
Epoch 14984/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9590  
Epoch 14985/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy:  
0.9599  
Epoch 14986/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0317 - accuracy:  
0.9597  
Epoch 14987/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9594  
Epoch 14988/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9605  
Epoch 14989/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9596  
Epoch 14990/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9601  
Epoch 14991/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0318 - accuracy:  
0.9602  
Epoch 14992/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy: 0.9595  
Epoch 14993/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy: 0.9596  
Epoch 14994/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0314 - accuracy: 0.9600  
Epoch 14995/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy: 0.9605  
Epoch 14996/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0334 - accuracy: 0.9599  
Epoch 14997/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy: 0.9590  
Epoch 14998/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy: 0.9596  
Epoch 14999/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0318 - accuracy: 0.9596  
Epoch 15000/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy: 0.9599  
Epoch 15001/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy: 0.9594  
Epoch 15002/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0317 - accuracy: 0.9603  
Epoch 15003/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0318 - accuracy: 0.9591  
Epoch 15004/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy: 0.9599  
Epoch 15005/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy: 0.9589  
Epoch 15006/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy: 0.9594  
Epoch 15007/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy: 0.9587  
Epoch 15008/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy:  
0.9594  
Epoch 15009/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9594  
Epoch 15010/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9603  
Epoch 15011/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9595  
Epoch 15012/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9603  
Epoch 15013/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0311 - accuracy:  
0.9598  
Epoch 15014/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9599  
Epoch 15015/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9588  
Epoch 15016/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9605  
Epoch 15017/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9601  
Epoch 15018/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0314 - accuracy:  
0.9597  
Epoch 15019/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9599  
Epoch 15020/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0317 - accuracy:  
0.9603  
Epoch 15021/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0315 - accuracy:  
0.9596  
Epoch 15022/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9593  
Epoch 15023/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0315 - accuracy:  
0.9591  
Epoch 15024/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
 0.9602  
 Epoch 15025/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0314 - accuracy:  
 0.9589  
 Epoch 15026/100000  
 2/2 [=====] - 0s 121ms/step - loss: 0.0342 - accuracy:  
 0.9593  
 Epoch 15027/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
 0.9593  
 Epoch 15028/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
 0.9590  
 Epoch 15029/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0346 - accuracy:  
 0.9599  
 Epoch 15030/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0337 - accuracy:  
 0.9597  
 Epoch 15031/100000  
 2/2 [=====] - 0s 120ms/step - loss: 0.0356 - accuracy:  
 0.9592  
 Epoch 15032/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0328 - accuracy:  
 0.9584  
 Epoch 15033/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0326 - accuracy:  
 0.9594  
 Epoch 15034/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0338 - accuracy:  
 0.9602  
 Epoch 15035/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
 0.9601  
 Epoch 15036/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0338 - accuracy:  
 0.9586  
 Epoch 15037/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0328 - accuracy:  
 0.9596  
 Epoch 15038/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
 0.9600  
 Epoch 15039/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0322 - accuracy:  
 0.9606  
 Epoch 15040/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9594  
Epoch 15041/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9591  
Epoch 15042/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0329 - accuracy:  
0.9601  
Epoch 15043/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9596  
Epoch 15044/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0321 - accuracy:  
0.9606  
Epoch 15045/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9604  
Epoch 15046/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9595  
Epoch 15047/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9590  
Epoch 15048/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0328 - accuracy:  
0.9600  
Epoch 15049/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9594  
Epoch 15050/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0317 - accuracy:  
0.9599  
Epoch 15051/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy:  
0.9600  
Epoch 15052/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0317 - accuracy:  
0.9593  
Epoch 15053/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9592  
Epoch 15054/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9596  
Epoch 15055/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0320 - accuracy:  
0.9602  
Epoch 15056/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0324 - accuracy:  
0.9591  
Epoch 15057/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9603  
Epoch 15058/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0322 - accuracy:  
0.9596  
Epoch 15059/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0320 - accuracy:  
0.9601  
Epoch 15060/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9597  
Epoch 15061/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9589  
Epoch 15062/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9593  
Epoch 15063/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9600  
Epoch 15064/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9598  
Epoch 15065/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9595  
Epoch 15066/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9600  
Epoch 15067/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9601  
Epoch 15068/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0323 - accuracy:  
0.9593  
Epoch 15069/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0323 - accuracy:  
0.9605  
Epoch 15070/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0318 - accuracy:  
0.9597  
Epoch 15071/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0320 - accuracy:  
0.9599  
Epoch 15072/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9607  
Epoch 15073/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy:  
0.9596  
Epoch 15074/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0320 - accuracy:  
0.9592  
Epoch 15075/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0318 - accuracy:  
0.9612  
Epoch 15076/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9591  
Epoch 15077/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0321 - accuracy:  
0.9601  
Epoch 15078/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9601  
Epoch 15079/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0342 - accuracy:  
0.9596  
Epoch 15080/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0356 - accuracy:  
0.9606  
Epoch 15081/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy:  
0.9597  
Epoch 15082/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0341 - accuracy:  
0.9599  
Epoch 15083/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy:  
0.9596  
Epoch 15084/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9595  
Epoch 15085/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9592  
Epoch 15086/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9591  
Epoch 15087/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0329 - accuracy:  
0.9600  
Epoch 15088/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy: 0.9595  
Epoch 15089/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0331 - accuracy: 0.9593  
Epoch 15090/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy: 0.9583  
Epoch 15091/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0317 - accuracy: 0.9598  
Epoch 15092/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy: 0.9599  
Epoch 15093/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy: 0.9589  
Epoch 15094/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy: 0.9598  
Epoch 15095/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy: 0.9591  
Epoch 15096/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy: 0.9602  
Epoch 15097/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy: 0.9598  
Epoch 15098/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy: 0.9600  
Epoch 15099/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9600  
Epoch 15100/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy: 0.9595  
Epoch 15101/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy: 0.9600  
Epoch 15102/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy: 0.9604  
Epoch 15103/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy: 0.9595  
Epoch 15104/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9614  
Epoch 15105/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0322 - accuracy:  
0.9600  
Epoch 15106/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0317 - accuracy:  
0.9585  
Epoch 15107/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9586  
Epoch 15108/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9598  
Epoch 15109/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9592  
Epoch 15110/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0314 - accuracy:  
0.9589  
Epoch 15111/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9605  
Epoch 15112/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9601  
Epoch 15113/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9599  
Epoch 15114/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9592  
Epoch 15115/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0319 - accuracy:  
0.9610  
Epoch 15116/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9600  
Epoch 15117/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9603  
Epoch 15118/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9594  
Epoch 15119/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0319 - accuracy:  
0.9591  
Epoch 15120/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9589  
Epoch 15121/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9589  
Epoch 15122/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9602  
Epoch 15123/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9598  
Epoch 15124/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9596  
Epoch 15125/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0316 - accuracy:  
0.9597  
Epoch 15126/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9593  
Epoch 15127/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9597  
Epoch 15128/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9597  
Epoch 15129/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9602  
Epoch 15130/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9589  
Epoch 15131/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0319 - accuracy:  
0.9594  
Epoch 15132/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9595  
Epoch 15133/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0318 - accuracy:  
0.9589  
Epoch 15134/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9583  
Epoch 15135/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9604  
Epoch 15136/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0319 - accuracy:  
0.9593  
Epoch 15137/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9601  
Epoch 15138/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9597  
Epoch 15139/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9603  
Epoch 15140/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0336 - accuracy:  
0.9599  
Epoch 15141/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy:  
0.9599  
Epoch 15142/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9590  
Epoch 15143/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9598  
Epoch 15144/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9591  
Epoch 15145/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9593  
Epoch 15146/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0325 - accuracy:  
0.9592  
Epoch 15147/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy:  
0.9605  
Epoch 15148/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0326 - accuracy:  
0.9598  
Epoch 15149/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0319 - accuracy:  
0.9598  
Epoch 15150/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9594  
Epoch 15151/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9605  
Epoch 15152/100000

2/2 [=====] - 0s 119ms/step - loss: 0.0316 - accuracy: 0.9597  
Epoch 15153/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy: 0.9591  
Epoch 15154/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9596  
Epoch 15155/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy: 0.9595  
Epoch 15156/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0322 - accuracy: 0.9601  
Epoch 15157/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy: 0.9598  
Epoch 15158/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy: 0.9607  
Epoch 15159/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy: 0.9590  
Epoch 15160/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy: 0.9603  
Epoch 15161/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy: 0.9601  
Epoch 15162/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0330 - accuracy: 0.9592  
Epoch 15163/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy: 0.9601  
Epoch 15164/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0322 - accuracy: 0.9592  
Epoch 15165/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy: 0.9594  
Epoch 15166/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy: 0.9593  
Epoch 15167/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy: 0.9587  
Epoch 15168/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9596  
Epoch 15169/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9585  
Epoch 15170/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0320 - accuracy:  
0.9591  
Epoch 15171/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9588  
Epoch 15172/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9589  
Epoch 15173/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0315 - accuracy:  
0.9588  
Epoch 15174/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0314 - accuracy:  
0.9587  
Epoch 15175/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9599  
Epoch 15176/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0319 - accuracy:  
0.9608  
Epoch 15177/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9583  
Epoch 15178/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9594  
Epoch 15179/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0323 - accuracy:  
0.9605  
Epoch 15180/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9600  
Epoch 15181/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9596  
Epoch 15182/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9592  
Epoch 15183/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9587  
Epoch 15184/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9599  
Epoch 15185/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9587  
Epoch 15186/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy:  
0.9589  
Epoch 15187/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9598  
Epoch 15188/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0316 - accuracy:  
0.9598  
Epoch 15189/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9595  
Epoch 15190/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9606  
Epoch 15191/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9596  
Epoch 15192/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0312 - accuracy:  
0.9605  
Epoch 15193/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9592  
Epoch 15194/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9596  
Epoch 15195/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9595  
Epoch 15196/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0339 - accuracy:  
0.9609  
Epoch 15197/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0327 - accuracy:  
0.9590  
Epoch 15198/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9586  
Epoch 15199/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0319 - accuracy:  
0.9608  
Epoch 15200/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0319 - accuracy:  
0.9591  
Epoch 15201/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9588  
Epoch 15202/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9596  
Epoch 15203/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0320 - accuracy:  
0.9600  
Epoch 15204/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9591  
Epoch 15205/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0328 - accuracy:  
0.9597  
Epoch 15206/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9587  
Epoch 15207/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9597  
Epoch 15208/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9590  
Epoch 15209/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy:  
0.9600  
Epoch 15210/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy:  
0.9595  
Epoch 15211/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9597  
Epoch 15212/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9601  
Epoch 15213/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9601  
Epoch 15214/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy:  
0.9593  
Epoch 15215/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9594  
Epoch 15216/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy: 0.9605  
Epoch 15217/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy: 0.9603  
Epoch 15218/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy: 0.9601  
Epoch 15219/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0318 - accuracy: 0.9606  
Epoch 15220/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0323 - accuracy: 0.9593  
Epoch 15221/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9589  
Epoch 15222/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0317 - accuracy: 0.9597  
Epoch 15223/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy: 0.9595  
Epoch 15224/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9602  
Epoch 15225/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy: 0.9599  
Epoch 15226/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0318 - accuracy: 0.9592  
Epoch 15227/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy: 0.9596  
Epoch 15228/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy: 0.9595  
Epoch 15229/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0317 - accuracy: 0.9592  
Epoch 15230/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy: 0.9587  
Epoch 15231/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9589  
Epoch 15232/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9597  
Epoch 15233/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy:  
0.9599  
Epoch 15234/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9598  
Epoch 15235/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9590  
Epoch 15236/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9598  
Epoch 15237/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9595  
Epoch 15238/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0318 - accuracy:  
0.9592  
Epoch 15239/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9597  
Epoch 15240/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9598  
Epoch 15241/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9599  
Epoch 15242/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9596  
Epoch 15243/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9595  
Epoch 15244/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9598  
Epoch 15245/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9594  
Epoch 15246/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9593  
Epoch 15247/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0325 - accuracy:  
0.9609  
Epoch 15248/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9589  
Epoch 15249/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0338 - accuracy:  
0.9593  
Epoch 15250/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9597  
Epoch 15251/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9586  
Epoch 15252/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9594  
Epoch 15253/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9602  
Epoch 15254/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9594  
Epoch 15255/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0321 - accuracy:  
0.9610  
Epoch 15256/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0341 - accuracy:  
0.9599  
Epoch 15257/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy:  
0.9590  
Epoch 15258/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0331 - accuracy:  
0.9599  
Epoch 15259/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0333 - accuracy:  
0.9589  
Epoch 15260/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0330 - accuracy:  
0.9595  
Epoch 15261/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9601  
Epoch 15262/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0323 - accuracy:  
0.9600  
Epoch 15263/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9595  
Epoch 15264/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9600  
Epoch 15265/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9599  
Epoch 15266/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9604  
Epoch 15267/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9612  
Epoch 15268/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy:  
0.9605  
Epoch 15269/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9593  
Epoch 15270/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9592  
Epoch 15271/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9591  
Epoch 15272/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9601  
Epoch 15273/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9591  
Epoch 15274/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9600  
Epoch 15275/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0321 - accuracy:  
0.9596  
Epoch 15276/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9596  
Epoch 15277/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9595  
Epoch 15278/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy:  
0.9600  
Epoch 15279/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9603  
Epoch 15280/100000

2/2 [=====] - 0s 121ms/step - loss: 0.0315 - accuracy:  
0.9598  
Epoch 15281/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9592  
Epoch 15282/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9597  
Epoch 15283/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9594  
Epoch 15284/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9600  
Epoch 15285/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0318 - accuracy:  
0.9594  
Epoch 15286/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9595  
Epoch 15287/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0319 - accuracy:  
0.9604  
Epoch 15288/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9603  
Epoch 15289/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9596  
Epoch 15290/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0317 - accuracy:  
0.9592  
Epoch 15291/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9597  
Epoch 15292/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9591  
Epoch 15293/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9605  
Epoch 15294/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9599  
Epoch 15295/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9597  
Epoch 15296/100000



2/2 [=====] - 0s 118ms/step - loss: 0.0322 - accuracy:  
0.9599  
Epoch 15297/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9601  
Epoch 15298/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0321 - accuracy:  
0.9599  
Epoch 15299/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9596  
Epoch 15300/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9588  
Epoch 15301/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9602  
Epoch 15302/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0321 - accuracy:  
0.9590  
Epoch 15303/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9604  
Epoch 15304/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9599  
Epoch 15305/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9598  
Epoch 15306/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0320 - accuracy:  
0.9607  
Epoch 15307/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9596  
Epoch 15308/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9591  
Epoch 15309/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy:  
0.9606  
Epoch 15310/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9597  
Epoch 15311/100000  
2/2 [=====] - 0s 129ms/step - loss: 0.0313 - accuracy:  
0.9603  
Epoch 15312/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0320 - accuracy:  
0.9603  
Epoch 15313/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9607  
Epoch 15314/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy:  
0.9597  
Epoch 15315/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9591  
Epoch 15316/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0321 - accuracy:  
0.9597  
Epoch 15317/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9603  
Epoch 15318/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9590  
Epoch 15319/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0325 - accuracy:  
0.9594  
Epoch 15320/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9596  
Epoch 15321/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0322 - accuracy:  
0.9596  
Epoch 15322/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9590  
Epoch 15323/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0325 - accuracy:  
0.9596  
Epoch 15324/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0328 - accuracy:  
0.9601  
Epoch 15325/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0322 - accuracy:  
0.9603  
Epoch 15326/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9601  
Epoch 15327/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9594  
Epoch 15328/100000

2/2 [=====] - 0s 125ms/step - loss: 0.0317 - accuracy:  
0.9602  
Epoch 15329/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0319 - accuracy:  
0.9591  
Epoch 15330/100000  
2/2 [=====] - 0s 128ms/step - loss: 0.0329 - accuracy:  
0.9602  
Epoch 15331/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0325 - accuracy:  
0.9601  
Epoch 15332/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0326 - accuracy:  
0.9601  
Epoch 15333/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0333 - accuracy:  
0.9599  
Epoch 15334/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0319 - accuracy:  
0.9586  
Epoch 15335/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0313 - accuracy:  
0.9594  
Epoch 15336/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0316 - accuracy:  
0.9593  
Epoch 15337/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9599  
Epoch 15338/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9593  
Epoch 15339/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9595  
Epoch 15340/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9599  
Epoch 15341/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9593  
Epoch 15342/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9583  
Epoch 15343/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0316 - accuracy:  
0.9595  
Epoch 15344/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9597  
Epoch 15345/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9597  
Epoch 15346/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9593  
Epoch 15347/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9591  
Epoch 15348/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy:  
0.9592  
Epoch 15349/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9586  
Epoch 15350/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9597  
Epoch 15351/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0320 - accuracy:  
0.9603  
Epoch 15352/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9597  
Epoch 15353/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9590  
Epoch 15354/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0318 - accuracy:  
0.9603  
Epoch 15355/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9593  
Epoch 15356/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0317 - accuracy:  
0.9592  
Epoch 15357/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9591  
Epoch 15358/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9598  
Epoch 15359/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9597  
Epoch 15360/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy:  
0.9592  
Epoch 15361/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9602  
Epoch 15362/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0319 - accuracy:  
0.9591  
Epoch 15363/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9603  
Epoch 15364/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9602  
Epoch 15365/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9603  
Epoch 15366/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9591  
Epoch 15367/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0316 - accuracy:  
0.9595  
Epoch 15368/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9596  
Epoch 15369/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9593  
Epoch 15370/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9597  
Epoch 15371/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9587  
Epoch 15372/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9593  
Epoch 15373/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9602  
Epoch 15374/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9595  
Epoch 15375/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9601  
Epoch 15376/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9601  
Epoch 15377/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0312 - accuracy:  
0.9599  
Epoch 15378/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9600  
Epoch 15379/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0314 - accuracy:  
0.9600  
Epoch 15380/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9593  
Epoch 15381/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0320 - accuracy:  
0.9593  
Epoch 15382/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0320 - accuracy:  
0.9602  
Epoch 15383/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9596  
Epoch 15384/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy:  
0.9605  
Epoch 15385/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9596  
Epoch 15386/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9602  
Epoch 15387/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy:  
0.9590  
Epoch 15388/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9591  
Epoch 15389/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9587  
Epoch 15390/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9605  
Epoch 15391/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9593  
Epoch 15392/100000

2/2 [=====] - 0s 119ms/step - loss: 0.0314 - accuracy:  
0.9596  
Epoch 15393/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9598  
Epoch 15394/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9594  
Epoch 15395/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0319 - accuracy:  
0.9603  
Epoch 15396/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9601  
Epoch 15397/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0316 - accuracy:  
0.9598  
Epoch 15398/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0319 - accuracy:  
0.9595  
Epoch 15399/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9604  
Epoch 15400/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9600  
Epoch 15401/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9599  
Epoch 15402/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9601  
Epoch 15403/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9599  
Epoch 15404/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9596  
Epoch 15405/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0336 - accuracy:  
0.9604  
Epoch 15406/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9589  
Epoch 15407/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0319 - accuracy:  
0.9594  
Epoch 15408/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9590  
Epoch 15409/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9611  
Epoch 15410/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9596  
Epoch 15411/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9602  
Epoch 15412/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9591  
Epoch 15413/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9603  
Epoch 15414/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9594  
Epoch 15415/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9605  
Epoch 15416/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9606  
Epoch 15417/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy:  
0.9597  
Epoch 15418/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9594  
Epoch 15419/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9594  
Epoch 15420/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9599  
Epoch 15421/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0317 - accuracy:  
0.9590  
Epoch 15422/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9602  
Epoch 15423/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy:  
0.9604  
Epoch 15424/100000



2/2 [=====] - 0s 117ms/step - loss: 0.0319 - accuracy:  
0.9594  
Epoch 15425/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9597  
Epoch 15426/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0318 - accuracy:  
0.9610  
Epoch 15427/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9601  
Epoch 15428/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0319 - accuracy:  
0.9595  
Epoch 15429/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0321 - accuracy:  
0.9601  
Epoch 15430/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9598  
Epoch 15431/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9606  
Epoch 15432/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0327 - accuracy:  
0.9588  
Epoch 15433/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0348 - accuracy:  
0.9591  
Epoch 15434/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0344 - accuracy:  
0.9599  
Epoch 15435/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0343 - accuracy:  
0.9595  
Epoch 15436/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0339 - accuracy:  
0.9600  
Epoch 15437/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy:  
0.9601  
Epoch 15438/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0346 - accuracy:  
0.9594  
Epoch 15439/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy:  
0.9606  
Epoch 15440/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9594  
Epoch 15441/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy:  
0.9604  
Epoch 15442/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0323 - accuracy:  
0.9593  
Epoch 15443/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9590  
Epoch 15444/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0319 - accuracy:  
0.9597  
Epoch 15445/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0325 - accuracy:  
0.9603  
Epoch 15446/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9591  
Epoch 15447/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9601  
Epoch 15448/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0319 - accuracy:  
0.9600  
Epoch 15449/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9591  
Epoch 15450/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9592  
Epoch 15451/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9600  
Epoch 15452/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9593  
Epoch 15453/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9592  
Epoch 15454/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0328 - accuracy:  
0.9602  
Epoch 15455/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0322 - accuracy:  
0.9593  
Epoch 15456/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9603  
Epoch 15457/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0320 - accuracy:  
0.9606  
Epoch 15458/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy:  
0.9600  
Epoch 15459/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9597  
Epoch 15460/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0320 - accuracy:  
0.9595  
Epoch 15461/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9610  
Epoch 15462/100000  
2/2 [=====] - 0s 126ms/step - loss: 0.0326 - accuracy:  
0.9598  
Epoch 15463/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9587  
Epoch 15464/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9595  
Epoch 15465/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9595  
Epoch 15466/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9590  
Epoch 15467/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9593  
Epoch 15468/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0323 - accuracy:  
0.9604  
Epoch 15469/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9587  
Epoch 15470/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0333 - accuracy:  
0.9607  
Epoch 15471/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0339 - accuracy:  
0.9596  
Epoch 15472/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy: 0.9595  
Epoch 15473/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy: 0.9598  
Epoch 15474/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0322 - accuracy: 0.9598  
Epoch 15475/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy: 0.9605  
Epoch 15476/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0320 - accuracy: 0.9598  
Epoch 15477/100000  
2/2 [=====] - 0s 129ms/step - loss: 0.0321 - accuracy: 0.9596  
Epoch 15478/100000  
2/2 [=====] - 0s 129ms/step - loss: 0.0319 - accuracy: 0.9597  
Epoch 15479/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0320 - accuracy: 0.9597  
Epoch 15480/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0324 - accuracy: 0.9591  
Epoch 15481/100000  
2/2 [=====] - 0s 128ms/step - loss: 0.0315 - accuracy: 0.9586  
Epoch 15482/100000  
2/2 [=====] - 0s 127ms/step - loss: 0.0317 - accuracy: 0.9596  
Epoch 15483/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0320 - accuracy: 0.9606  
Epoch 15484/100000  
2/2 [=====] - 0s 136ms/step - loss: 0.0315 - accuracy: 0.9588  
Epoch 15485/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0316 - accuracy: 0.9590  
Epoch 15486/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy: 0.9596  
Epoch 15487/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy: 0.9594  
Epoch 15488/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0312 - accuracy:  
0.9590  
Epoch 15489/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9601  
Epoch 15490/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9591  
Epoch 15491/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0323 - accuracy:  
0.9599  
Epoch 15492/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0318 - accuracy:  
0.9589  
Epoch 15493/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy:  
0.9595  
Epoch 15494/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9607  
Epoch 15495/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0318 - accuracy:  
0.9587  
Epoch 15496/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0324 - accuracy:  
0.9595  
Epoch 15497/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9598  
Epoch 15498/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9608  
Epoch 15499/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9590  
Epoch 15500/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9589  
Epoch 15501/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9605  
Epoch 15502/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0321 - accuracy:  
0.9599  
Epoch 15503/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0334 - accuracy:  
0.9601  
Epoch 15504/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9606  
Epoch 15505/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy:  
0.9594  
Epoch 15506/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9597  
Epoch 15507/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9590  
Epoch 15508/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9590  
Epoch 15509/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0324 - accuracy:  
0.9594  
Epoch 15510/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9596  
Epoch 15511/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0324 - accuracy:  
0.9600  
Epoch 15512/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9601  
Epoch 15513/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9594  
Epoch 15514/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9600  
Epoch 15515/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9606  
Epoch 15516/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0316 - accuracy:  
0.9591  
Epoch 15517/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9594  
Epoch 15518/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy:  
0.9592  
Epoch 15519/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9596  
Epoch 15520/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9606  
Epoch 15521/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9592  
Epoch 15522/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9592  
Epoch 15523/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9587  
Epoch 15524/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0318 - accuracy:  
0.9590  
Epoch 15525/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9591  
Epoch 15526/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0316 - accuracy:  
0.9593  
Epoch 15527/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0321 - accuracy:  
0.9605  
Epoch 15528/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy:  
0.9595  
Epoch 15529/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9592  
Epoch 15530/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0313 - accuracy:  
0.9593  
Epoch 15531/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9603  
Epoch 15532/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9599  
Epoch 15533/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0317 - accuracy:  
0.9596  
Epoch 15534/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9591  
Epoch 15535/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9589  
Epoch 15536/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0313 - accuracy:  
0.9600  
Epoch 15537/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0316 - accuracy:  
0.9593  
Epoch 15538/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0313 - accuracy:  
0.9595  
Epoch 15539/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9602  
Epoch 15540/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0318 - accuracy:  
0.9603  
Epoch 15541/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy:  
0.9589  
Epoch 15542/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9599  
Epoch 15543/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0317 - accuracy:  
0.9598  
Epoch 15544/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0320 - accuracy:  
0.9597  
Epoch 15545/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9599  
Epoch 15546/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy:  
0.9595  
Epoch 15547/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9601  
Epoch 15548/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9601  
Epoch 15549/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0317 - accuracy:  
0.9596  
Epoch 15550/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9598  
Epoch 15551/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9595  
Epoch 15552/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9599  
Epoch 15553/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9598  
Epoch 15554/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9601  
Epoch 15555/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9599  
Epoch 15556/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0319 - accuracy:  
0.9595  
Epoch 15557/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9593  
Epoch 15558/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9594  
Epoch 15559/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9595  
Epoch 15560/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0308 - accuracy:  
0.9590  
Epoch 15561/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0315 - accuracy:  
0.9596  
Epoch 15562/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9590  
Epoch 15563/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9599  
Epoch 15564/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9599  
Epoch 15565/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0313 - accuracy:  
0.9588  
Epoch 15566/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0329 - accuracy:  
0.9602  
Epoch 15567/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0323 - accuracy:  
0.9594  
Epoch 15568/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9606  
Epoch 15569/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9598  
Epoch 15570/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9589  
Epoch 15571/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9606  
Epoch 15572/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0314 - accuracy:  
0.9593  
Epoch 15573/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9594  
Epoch 15574/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9601  
Epoch 15575/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9592  
Epoch 15576/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy:  
0.9593  
Epoch 15577/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0319 - accuracy:  
0.9595  
Epoch 15578/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9599  
Epoch 15579/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9594  
Epoch 15580/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9591  
Epoch 15581/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9605  
Epoch 15582/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0323 - accuracy:  
0.9590  
Epoch 15583/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9592  
Epoch 15584/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0321 - accuracy:  
0.9596  
Epoch 15585/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0315 - accuracy:  
0.9596  
Epoch 15586/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9595  
Epoch 15587/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9592  
Epoch 15588/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9592  
Epoch 15589/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9594  
Epoch 15590/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0316 - accuracy:  
0.9604  
Epoch 15591/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9599  
Epoch 15592/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9598  
Epoch 15593/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9597  
Epoch 15594/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9598  
Epoch 15595/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9604  
Epoch 15596/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy:  
0.9597  
Epoch 15597/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy:  
0.9600  
Epoch 15598/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0327 - accuracy:  
0.9593  
Epoch 15599/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0339 - accuracy:  
0.9585  
Epoch 15600/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy: 0.9599  
Epoch 15601/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0328 - accuracy: 0.9604  
Epoch 15602/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0325 - accuracy: 0.9601  
Epoch 15603/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy: 0.9598  
Epoch 15604/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy: 0.9594  
Epoch 15605/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy: 0.9602  
Epoch 15606/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy: 0.9592  
Epoch 15607/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy: 0.9591  
Epoch 15608/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0324 - accuracy: 0.9596  
Epoch 15609/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy: 0.9590  
Epoch 15610/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0320 - accuracy: 0.9593  
Epoch 15611/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy: 0.9592  
Epoch 15612/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9599  
Epoch 15613/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy: 0.9604  
Epoch 15614/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0315 - accuracy: 0.9589  
Epoch 15615/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy: 0.9594  
Epoch 15616/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9603  
Epoch 15617/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0323 - accuracy:  
0.9596  
Epoch 15618/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9592  
Epoch 15619/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9596  
Epoch 15620/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9594  
Epoch 15621/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9602  
Epoch 15622/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9598  
Epoch 15623/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9603  
Epoch 15624/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9602  
Epoch 15625/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0327 - accuracy:  
0.9606  
Epoch 15626/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0317 - accuracy:  
0.9586  
Epoch 15627/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9599  
Epoch 15628/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy:  
0.9599  
Epoch 15629/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9604  
Epoch 15630/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9591  
Epoch 15631/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9597  
Epoch 15632/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9598  
Epoch 15633/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9597  
Epoch 15634/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9586  
Epoch 15635/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9592  
Epoch 15636/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9595  
Epoch 15637/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0312 - accuracy:  
0.9599  
Epoch 15638/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9599  
Epoch 15639/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0312 - accuracy:  
0.9594  
Epoch 15640/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9603  
Epoch 15641/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9591  
Epoch 15642/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9597  
Epoch 15643/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9600  
Epoch 15644/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0315 - accuracy:  
0.9597  
Epoch 15645/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9591  
Epoch 15646/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9596  
Epoch 15647/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0312 - accuracy:  
0.9593  
Epoch 15648/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9595  
Epoch 15649/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy: 0.9598  
Epoch 15650/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0310 - accuracy: 0.9595  
Epoch 15651/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy: 0.9604  
Epoch 15652/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy: 0.9608  
Epoch 15653/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy: 0.9584  
Epoch 15654/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy: 0.9593  
Epoch 15655/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy: 0.9597  
Epoch 15656/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy: 0.9601  
Epoch 15657/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy: 0.9600  
Epoch 15658/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy: 0.9606  
Epoch 15659/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0326 - accuracy: 0.9595  
Epoch 15660/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0327 - accuracy: 0.9591  
Epoch 15661/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy: 0.9600  
Epoch 15662/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy: 0.9597  
Epoch 15663/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0327 - accuracy: 0.9598  
Epoch 15664/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy: 0.9593  
Epoch 15665/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy: 0.9599  
Epoch 15666/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy: 0.9606  
Epoch 15667/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy: 0.9603  
Epoch 15668/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0322 - accuracy: 0.9594  
Epoch 15669/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy: 0.9603  
Epoch 15670/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0335 - accuracy: 0.9603  
Epoch 15671/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0319 - accuracy: 0.9595  
Epoch 15672/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0319 - accuracy: 0.9593  
Epoch 15673/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy: 0.9588  
Epoch 15674/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy: 0.9592  
Epoch 15675/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy: 0.9598  
Epoch 15676/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy: 0.9597  
Epoch 15677/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy: 0.9600  
Epoch 15678/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0316 - accuracy: 0.9600  
Epoch 15679/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy: 0.9597  
Epoch 15680/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9589  
Epoch 15681/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9600  
Epoch 15682/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9592  
Epoch 15683/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0330 - accuracy:  
0.9604  
Epoch 15684/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9611  
Epoch 15685/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9600  
Epoch 15686/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy:  
0.9603  
Epoch 15687/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy:  
0.9594  
Epoch 15688/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9594  
Epoch 15689/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0321 - accuracy:  
0.9587  
Epoch 15690/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9610  
Epoch 15691/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0319 - accuracy:  
0.9599  
Epoch 15692/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9591  
Epoch 15693/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0319 - accuracy:  
0.9606  
Epoch 15694/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9605  
Epoch 15695/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9607  
Epoch 15696/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy: 0.9611  
Epoch 15697/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy: 0.9605  
Epoch 15698/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9600  
Epoch 15699/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy: 0.9591  
Epoch 15700/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0314 - accuracy: 0.9595  
Epoch 15701/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9592  
Epoch 15702/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy: 0.9590  
Epoch 15703/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy: 0.9596  
Epoch 15704/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy: 0.9592  
Epoch 15705/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9595  
Epoch 15706/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9588  
Epoch 15707/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy: 0.9592  
Epoch 15708/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy: 0.9609  
Epoch 15709/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy: 0.9602  
Epoch 15710/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0323 - accuracy: 0.9593  
Epoch 15711/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy: 0.9596  
Epoch 15712/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0323 - accuracy:  
0.9601  
Epoch 15713/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9596  
Epoch 15714/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0312 - accuracy:  
0.9599  
Epoch 15715/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0319 - accuracy:  
0.9597  
Epoch 15716/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy:  
0.9590  
Epoch 15717/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0322 - accuracy:  
0.9610  
Epoch 15718/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9591  
Epoch 15719/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9613  
Epoch 15720/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9583  
Epoch 15721/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9591  
Epoch 15722/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9596  
Epoch 15723/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0317 - accuracy:  
0.9604  
Epoch 15724/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy:  
0.9603  
Epoch 15725/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9583  
Epoch 15726/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0318 - accuracy:  
0.9598  
Epoch 15727/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9592  
Epoch 15728/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9598  
Epoch 15729/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0318 - accuracy:  
0.9601  
Epoch 15730/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy:  
0.9597  
Epoch 15731/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9592  
Epoch 15732/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0317 - accuracy:  
0.9609  
Epoch 15733/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9596  
Epoch 15734/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9605  
Epoch 15735/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9588  
Epoch 15736/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0316 - accuracy:  
0.9600  
Epoch 15737/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9595  
Epoch 15738/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0317 - accuracy:  
0.9594  
Epoch 15739/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9596  
Epoch 15740/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0317 - accuracy:  
0.9599  
Epoch 15741/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0319 - accuracy:  
0.9594  
Epoch 15742/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9609  
Epoch 15743/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9595  
Epoch 15744/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy:  
0.9600  
Epoch 15745/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9607  
Epoch 15746/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9592  
Epoch 15747/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9604  
Epoch 15748/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9601  
Epoch 15749/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9603  
Epoch 15750/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9594  
Epoch 15751/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9589  
Epoch 15752/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9591  
Epoch 15753/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0324 - accuracy:  
0.9594  
Epoch 15754/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0317 - accuracy:  
0.9586  
Epoch 15755/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9600  
Epoch 15756/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0320 - accuracy:  
0.9597  
Epoch 15757/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0331 - accuracy:  
0.9590  
Epoch 15758/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0325 - accuracy:  
0.9604  
Epoch 15759/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9601  
Epoch 15760/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9591  
Epoch 15761/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0314 - accuracy:  
0.9591  
Epoch 15762/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9596  
Epoch 15763/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9598  
Epoch 15764/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0315 - accuracy:  
0.9592  
Epoch 15765/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9595  
Epoch 15766/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9597  
Epoch 15767/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0311 - accuracy:  
0.9603  
Epoch 15768/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9597  
Epoch 15769/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9610  
Epoch 15770/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9599  
Epoch 15771/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9608  
Epoch 15772/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9600  
Epoch 15773/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9602  
Epoch 15774/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9594  
Epoch 15775/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9593  
Epoch 15776/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9591  
Epoch 15777/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9587  
Epoch 15778/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0315 - accuracy:  
0.9603  
Epoch 15779/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9594  
Epoch 15780/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9603  
Epoch 15781/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9606  
Epoch 15782/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0323 - accuracy:  
0.9590  
Epoch 15783/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0324 - accuracy:  
0.9595  
Epoch 15784/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9598  
Epoch 15785/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9595  
Epoch 15786/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9604  
Epoch 15787/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9590  
Epoch 15788/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9591  
Epoch 15789/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9592  
Epoch 15790/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0315 - accuracy:  
0.9589  
Epoch 15791/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9602  
Epoch 15792/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0323 - accuracy: 0.9597  
Epoch 15793/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy: 0.9603  
Epoch 15794/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy: 0.9592  
Epoch 15795/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy: 0.9600  
Epoch 15796/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0316 - accuracy: 0.9603  
Epoch 15797/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy: 0.9591  
Epoch 15798/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy: 0.9605  
Epoch 15799/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy: 0.9598  
Epoch 15800/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy: 0.9596  
Epoch 15801/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy: 0.9596  
Epoch 15802/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy: 0.9600  
Epoch 15803/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy: 0.9602  
Epoch 15804/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0328 - accuracy: 0.9606  
Epoch 15805/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy: 0.9594  
Epoch 15806/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy: 0.9602  
Epoch 15807/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy: 0.9599  
Epoch 15808/100000



2/2 [=====] - 0s 118ms/step - loss: 0.0320 - accuracy: 0.9595  
Epoch 15809/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0320 - accuracy: 0.9598  
Epoch 15810/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0320 - accuracy: 0.9596  
Epoch 15811/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy: 0.9596  
Epoch 15812/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy: 0.9589  
Epoch 15813/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0313 - accuracy: 0.9591  
Epoch 15814/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy: 0.9606  
Epoch 15815/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy: 0.9602  
Epoch 15816/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy: 0.9599  
Epoch 15817/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy: 0.9595  
Epoch 15818/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy: 0.9595  
Epoch 15819/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy: 0.9604  
Epoch 15820/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0311 - accuracy: 0.9591  
Epoch 15821/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy: 0.9597  
Epoch 15822/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0310 - accuracy: 0.9590  
Epoch 15823/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9582  
Epoch 15824/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9599  
Epoch 15825/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy: 0.9585  
Epoch 15826/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0311 - accuracy: 0.9597  
Epoch 15827/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9597  
Epoch 15828/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy: 0.9593  
Epoch 15829/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy: 0.9594  
Epoch 15830/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0314 - accuracy: 0.9591  
Epoch 15831/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy: 0.9594  
Epoch 15832/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9595  
Epoch 15833/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy: 0.9595  
Epoch 15834/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0305 - accuracy: 0.9591  
Epoch 15835/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9590  
Epoch 15836/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy: 0.9595  
Epoch 15837/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy: 0.9595  
Epoch 15838/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy: 0.9595  
Epoch 15839/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy: 0.9595  
Epoch 15840/100000

2/2 [=====] - 0s 120ms/step - loss: 0.0321 - accuracy:  
0.9600  
Epoch 15841/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9597  
Epoch 15842/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9602  
Epoch 15843/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9599  
Epoch 15844/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0323 - accuracy:  
0.9594  
Epoch 15845/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9603  
Epoch 15846/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9602  
Epoch 15847/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9594  
Epoch 15848/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9598  
Epoch 15849/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9593  
Epoch 15850/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9597  
Epoch 15851/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9597  
Epoch 15852/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9596  
Epoch 15853/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy:  
0.9599  
Epoch 15854/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy:  
0.9605  
Epoch 15855/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9594  
Epoch 15856/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9593  
Epoch 15857/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9602  
Epoch 15858/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0314 - accuracy:  
0.9595  
Epoch 15859/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0317 - accuracy:  
0.9594  
Epoch 15860/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9593  
Epoch 15861/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9606  
Epoch 15862/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9593  
Epoch 15863/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9593  
Epoch 15864/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9604  
Epoch 15865/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9594  
Epoch 15866/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0334 - accuracy:  
0.9590  
Epoch 15867/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0339 - accuracy:  
0.9598  
Epoch 15868/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9598  
Epoch 15869/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9605  
Epoch 15870/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9602  
Epoch 15871/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0327 - accuracy:  
0.9598  
Epoch 15872/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9596  
Epoch 15873/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9603  
Epoch 15874/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0316 - accuracy:  
0.9591  
Epoch 15875/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy:  
0.9586  
Epoch 15876/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9599  
Epoch 15877/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9587  
Epoch 15878/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0327 - accuracy:  
0.9594  
Epoch 15879/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0330 - accuracy:  
0.9586  
Epoch 15880/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9598  
Epoch 15881/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9588  
Epoch 15882/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9598  
Epoch 15883/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9599  
Epoch 15884/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9602  
Epoch 15885/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0324 - accuracy:  
0.9596  
Epoch 15886/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9606  
Epoch 15887/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9605  
Epoch 15888/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0323 - accuracy:  
0.9591  
Epoch 15889/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9606  
Epoch 15890/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9595  
Epoch 15891/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9610  
Epoch 15892/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0315 - accuracy:  
0.9598  
Epoch 15893/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9587  
Epoch 15894/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0322 - accuracy:  
0.9586  
Epoch 15895/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0320 - accuracy:  
0.9591  
Epoch 15896/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0325 - accuracy:  
0.9606  
Epoch 15897/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9603  
Epoch 15898/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0322 - accuracy:  
0.9590  
Epoch 15899/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0320 - accuracy:  
0.9590  
Epoch 15900/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9592  
Epoch 15901/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9602  
Epoch 15902/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0344 - accuracy:  
0.9598  
Epoch 15903/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9597  
Epoch 15904/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0334 - accuracy:  
0.9594  
Epoch 15905/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0329 - accuracy:  
0.9602  
Epoch 15906/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9596  
Epoch 15907/100000  
2/2 [=====] - 0s 126ms/step - loss: 0.0326 - accuracy:  
0.9599  
Epoch 15908/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0322 - accuracy:  
0.9598  
Epoch 15909/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9597  
Epoch 15910/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9591  
Epoch 15911/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0323 - accuracy:  
0.9608  
Epoch 15912/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9596  
Epoch 15913/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9605  
Epoch 15914/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9601  
Epoch 15915/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy:  
0.9593  
Epoch 15916/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9601  
Epoch 15917/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0317 - accuracy:  
0.9593  
Epoch 15918/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9597  
Epoch 15919/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0315 - accuracy:  
0.9594  
Epoch 15920/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9594  
Epoch 15921/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9594  
Epoch 15922/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9601  
Epoch 15923/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9602  
Epoch 15924/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0312 - accuracy:  
0.9591  
Epoch 15925/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9591  
Epoch 15926/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0319 - accuracy:  
0.9593  
Epoch 15927/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9591  
Epoch 15928/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0320 - accuracy:  
0.9608  
Epoch 15929/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9599  
Epoch 15930/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0319 - accuracy:  
0.9604  
Epoch 15931/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9595  
Epoch 15932/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9590  
Epoch 15933/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9585  
Epoch 15934/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0317 - accuracy:  
0.9599  
Epoch 15935/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0311 - accuracy:  
0.9589  
Epoch 15936/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9599  
Epoch 15937/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0317 - accuracy:  
0.9599  
Epoch 15938/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9595  
Epoch 15939/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9602  
Epoch 15940/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0315 - accuracy:  
0.9595  
Epoch 15941/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0313 - accuracy:  
0.9596  
Epoch 15942/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy:  
0.9598  
Epoch 15943/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9596  
Epoch 15944/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9596  
Epoch 15945/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9598  
Epoch 15946/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9591  
Epoch 15947/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0335 - accuracy:  
0.9598  
Epoch 15948/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9590  
Epoch 15949/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9596  
Epoch 15950/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy:  
0.9595  
Epoch 15951/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9602  
Epoch 15952/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy:  
0.9588  
Epoch 15953/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9605  
Epoch 15954/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0322 - accuracy:  
0.9602  
Epoch 15955/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9596  
Epoch 15956/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9603  
Epoch 15957/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy:  
0.9596  
Epoch 15958/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9603  
Epoch 15959/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9594  
Epoch 15960/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0319 - accuracy:  
0.9592  
Epoch 15961/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9595  
Epoch 15962/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9596  
Epoch 15963/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9603  
Epoch 15964/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9592  
Epoch 15965/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0340 - accuracy:  
0.9597  
Epoch 15966/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0322 - accuracy:  
0.9587  
Epoch 15967/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9591  
Epoch 15968/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9586  
Epoch 15969/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0321 - accuracy:  
0.9609  
Epoch 15970/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy:  
0.9599  
Epoch 15971/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9597  
Epoch 15972/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9593  
Epoch 15973/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0321 - accuracy:  
0.9592  
Epoch 15974/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9593  
Epoch 15975/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0314 - accuracy:  
0.9593  
Epoch 15976/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9600  
Epoch 15977/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9604  
Epoch 15978/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9608  
Epoch 15979/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0319 - accuracy:  
0.9594  
Epoch 15980/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9595  
Epoch 15981/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy:  
0.9604  
Epoch 15982/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0321 - accuracy:  
0.9589  
Epoch 15983/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9591  
Epoch 15984/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9602  
Epoch 15985/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0319 - accuracy:  
0.9598  
Epoch 15986/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0314 - accuracy:  
0.9594  
Epoch 15987/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9604  
Epoch 15988/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9601  
Epoch 15989/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9590  
Epoch 15990/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0316 - accuracy:  
0.9596  
Epoch 15991/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9604  
Epoch 15992/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9600  
Epoch 15993/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0314 - accuracy:  
0.9598  
Epoch 15994/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9599  
Epoch 15995/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9594  
Epoch 15996/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9590  
Epoch 15997/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9600  
Epoch 15998/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0324 - accuracy:  
0.9592  
Epoch 15999/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9596  
Epoch 16000/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0318 - accuracy:  
0.9593  
Epoch 16001/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0333 - accuracy:  
0.9605  
Epoch 16002/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9595  
Epoch 16003/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9587  
Epoch 16004/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0325 - accuracy:  
0.9594  
Epoch 16005/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0329 - accuracy:  
0.9589  
Epoch 16006/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9601  
Epoch 16007/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0321 - accuracy:  
0.9585  
Epoch 16008/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy:  
0.9587  
Epoch 16009/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9588  
Epoch 16010/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0315 - accuracy:  
0.9594  
Epoch 16011/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9587  
Epoch 16012/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9587  
Epoch 16013/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0322 - accuracy:  
0.9586  
Epoch 16014/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9593  
Epoch 16015/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9595  
Epoch 16016/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0317 - accuracy: 0.9597  
Epoch 16017/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9607  
Epoch 16018/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy: 0.9593  
Epoch 16019/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy: 0.9599  
Epoch 16020/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy: 0.9590  
Epoch 16021/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0318 - accuracy: 0.9599  
Epoch 16022/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0319 - accuracy: 0.9593  
Epoch 16023/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy: 0.9585  
Epoch 16024/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0320 - accuracy: 0.9596  
Epoch 16025/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy: 0.9601  
Epoch 16026/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy: 0.9594  
Epoch 16027/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0322 - accuracy: 0.9601  
Epoch 16028/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0333 - accuracy: 0.9598  
Epoch 16029/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy: 0.9598  
Epoch 16030/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy: 0.9592  
Epoch 16031/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy: 0.9600  
Epoch 16032/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0338 - accuracy: 0.9604  
Epoch 16033/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy: 0.9595  
Epoch 16034/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0319 - accuracy: 0.9588  
Epoch 16035/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0326 - accuracy: 0.9600  
Epoch 16036/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy: 0.9599  
Epoch 16037/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy: 0.9600  
Epoch 16038/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0319 - accuracy: 0.9597  
Epoch 16039/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0324 - accuracy: 0.9604  
Epoch 16040/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0324 - accuracy: 0.9605  
Epoch 16041/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0325 - accuracy: 0.9591  
Epoch 16042/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy: 0.9585  
Epoch 16043/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0324 - accuracy: 0.9597  
Epoch 16044/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0325 - accuracy: 0.9601  
Epoch 16045/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0322 - accuracy: 0.9591  
Epoch 16046/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0316 - accuracy: 0.9590  
Epoch 16047/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0318 - accuracy: 0.9599  
Epoch 16048/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9595  
Epoch 16049/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9604  
Epoch 16050/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9606  
Epoch 16051/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0310 - accuracy:  
0.9592  
Epoch 16052/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9602  
Epoch 16053/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy:  
0.9589  
Epoch 16054/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9596  
Epoch 16055/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9600  
Epoch 16056/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9596  
Epoch 16057/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9591  
Epoch 16058/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9597  
Epoch 16059/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0314 - accuracy:  
0.9604  
Epoch 16060/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0314 - accuracy:  
0.9596  
Epoch 16061/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9586  
Epoch 16062/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9600  
Epoch 16063/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9588  
Epoch 16064/100000



2/2 [=====] - 0s 114ms/step - loss: 0.0315 - accuracy:  
0.9602  
Epoch 16065/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9600  
Epoch 16066/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0314 - accuracy:  
0.9599  
Epoch 16067/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0323 - accuracy:  
0.9594  
Epoch 16068/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9592  
Epoch 16069/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9597  
Epoch 16070/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9597  
Epoch 16071/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0315 - accuracy:  
0.9604  
Epoch 16072/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9592  
Epoch 16073/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9598  
Epoch 16074/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9588  
Epoch 16075/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0319 - accuracy:  
0.9587  
Epoch 16076/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9593  
Epoch 16077/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9603  
Epoch 16078/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0336 - accuracy:  
0.9593  
Epoch 16079/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0333 - accuracy:  
0.9601  
Epoch 16080/100000

2/2 [=====] - 0s 121ms/step - loss: 0.0326 - accuracy:  
0.9597  
Epoch 16081/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9605  
Epoch 16082/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy:  
0.9595  
Epoch 16083/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0325 - accuracy:  
0.9601  
Epoch 16084/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0330 - accuracy:  
0.9600  
Epoch 16085/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy:  
0.9602  
Epoch 16086/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0328 - accuracy:  
0.9597  
Epoch 16087/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9601  
Epoch 16088/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9597  
Epoch 16089/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9591  
Epoch 16090/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9606  
Epoch 16091/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9599  
Epoch 16092/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9604  
Epoch 16093/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9598  
Epoch 16094/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9605  
Epoch 16095/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9602  
Epoch 16096/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9597  
Epoch 16097/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9593  
Epoch 16098/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9600  
Epoch 16099/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9589  
Epoch 16100/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0312 - accuracy:  
0.9602  
Epoch 16101/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9596  
Epoch 16102/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9599  
Epoch 16103/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0315 - accuracy:  
0.9599  
Epoch 16104/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9599  
Epoch 16105/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9599  
Epoch 16106/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9597  
Epoch 16107/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9590  
Epoch 16108/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9604  
Epoch 16109/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9598  
Epoch 16110/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9592  
Epoch 16111/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy:  
0.9589  
Epoch 16112/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy: 0.9595  
Epoch 16113/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy: 0.9595  
Epoch 16114/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy: 0.9598  
Epoch 16115/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9602  
Epoch 16116/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy: 0.9597  
Epoch 16117/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9595  
Epoch 16118/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy: 0.9607  
Epoch 16119/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy: 0.9597  
Epoch 16120/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9599  
Epoch 16121/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9594  
Epoch 16122/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy: 0.9595  
Epoch 16123/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9587  
Epoch 16124/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy: 0.9598  
Epoch 16125/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy: 0.9595  
Epoch 16126/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy: 0.9605  
Epoch 16127/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9604  
Epoch 16128/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9598  
Epoch 16129/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy: 0.9599  
Epoch 16130/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy: 0.9592  
Epoch 16131/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy: 0.9597  
Epoch 16132/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy: 0.9597  
Epoch 16133/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0321 - accuracy: 0.9595  
Epoch 16134/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0312 - accuracy: 0.9587  
Epoch 16135/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy: 0.9591  
Epoch 16136/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy: 0.9600  
Epoch 16137/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy: 0.9600  
Epoch 16138/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy: 0.9590  
Epoch 16139/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy: 0.9588  
Epoch 16140/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9601  
Epoch 16141/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy: 0.9602  
Epoch 16142/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy: 0.9592  
Epoch 16143/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy: 0.9593  
Epoch 16144/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0316 - accuracy:  
0.9599  
Epoch 16145/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9595  
Epoch 16146/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9592  
Epoch 16147/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9590  
Epoch 16148/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy:  
0.9606  
Epoch 16149/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0319 - accuracy:  
0.9603  
Epoch 16150/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9601  
Epoch 16151/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0316 - accuracy:  
0.9590  
Epoch 16152/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9593  
Epoch 16153/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy:  
0.9597  
Epoch 16154/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9596  
Epoch 16155/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0326 - accuracy:  
0.9585  
Epoch 16156/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9603  
Epoch 16157/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9603  
Epoch 16158/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0316 - accuracy:  
0.9593  
Epoch 16159/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9591  
Epoch 16160/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9599  
Epoch 16161/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9605  
Epoch 16162/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9596  
Epoch 16163/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy:  
0.9592  
Epoch 16164/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0314 - accuracy:  
0.9597  
Epoch 16165/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9600  
Epoch 16166/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9593  
Epoch 16167/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0314 - accuracy:  
0.9590  
Epoch 16168/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0320 - accuracy:  
0.9594  
Epoch 16169/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9595  
Epoch 16170/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9592  
Epoch 16171/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy:  
0.9594  
Epoch 16172/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0323 - accuracy:  
0.9598  
Epoch 16173/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9597  
Epoch 16174/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9594  
Epoch 16175/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9612  
Epoch 16176/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9603  
Epoch 16177/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0325 - accuracy:  
0.9599  
Epoch 16178/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9600  
Epoch 16179/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9594  
Epoch 16180/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9593  
Epoch 16181/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9607  
Epoch 16182/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0320 - accuracy:  
0.9593  
Epoch 16183/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0317 - accuracy:  
0.9598  
Epoch 16184/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9592  
Epoch 16185/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0315 - accuracy:  
0.9594  
Epoch 16186/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9608  
Epoch 16187/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9596  
Epoch 16188/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0316 - accuracy:  
0.9596  
Epoch 16189/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9598  
Epoch 16190/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9598  
Epoch 16191/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9593  
Epoch 16192/100000



2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9600  
Epoch 16193/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0318 - accuracy:  
0.9602  
Epoch 16194/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0324 - accuracy:  
0.9596  
Epoch 16195/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9602  
Epoch 16196/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0312 - accuracy:  
0.9589  
Epoch 16197/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0318 - accuracy:  
0.9597  
Epoch 16198/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9601  
Epoch 16199/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9599  
Epoch 16200/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0313 - accuracy:  
0.9602  
Epoch 16201/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0324 - accuracy:  
0.9604  
Epoch 16202/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9591  
Epoch 16203/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0321 - accuracy:  
0.9600  
Epoch 16204/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9594  
Epoch 16205/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0321 - accuracy:  
0.9595  
Epoch 16206/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9605  
Epoch 16207/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0340 - accuracy:  
0.9601  
Epoch 16208/100000

2/2 [=====] - 0s 119ms/step - loss: 0.0327 - accuracy:  
0.9598  
Epoch 16209/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0328 - accuracy:  
0.9595  
Epoch 16210/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9600  
Epoch 16211/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0326 - accuracy:  
0.9591  
Epoch 16212/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9589  
Epoch 16213/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0321 - accuracy:  
0.9596  
Epoch 16214/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0326 - accuracy:  
0.9598  
Epoch 16215/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9594  
Epoch 16216/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0323 - accuracy:  
0.9598  
Epoch 16217/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9601  
Epoch 16218/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0321 - accuracy:  
0.9588  
Epoch 16219/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0323 - accuracy:  
0.9600  
Epoch 16220/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0330 - accuracy:  
0.9605  
Epoch 16221/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0328 - accuracy:  
0.9611  
Epoch 16222/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9603  
Epoch 16223/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0321 - accuracy:  
0.9599  
Epoch 16224/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy: 0.9592  
Epoch 16225/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy: 0.9603  
Epoch 16226/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0320 - accuracy: 0.9602  
Epoch 16227/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0320 - accuracy: 0.9603  
Epoch 16228/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0313 - accuracy: 0.9595  
Epoch 16229/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0311 - accuracy: 0.9589  
Epoch 16230/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy: 0.9607  
Epoch 16231/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy: 0.9604  
Epoch 16232/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy: 0.9595  
Epoch 16233/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy: 0.9588  
Epoch 16234/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy: 0.9593  
Epoch 16235/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy: 0.9593  
Epoch 16236/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy: 0.9593  
Epoch 16237/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9596  
Epoch 16238/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0314 - accuracy: 0.9598  
Epoch 16239/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy: 0.9602  
Epoch 16240/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9589  
Epoch 16241/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0310 - accuracy:  
0.9596  
Epoch 16242/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy:  
0.9598  
Epoch 16243/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9592  
Epoch 16244/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9591  
Epoch 16245/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0314 - accuracy:  
0.9602  
Epoch 16246/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9592  
Epoch 16247/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9597  
Epoch 16248/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0315 - accuracy:  
0.9588  
Epoch 16249/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9596  
Epoch 16250/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9590  
Epoch 16251/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9590  
Epoch 16252/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0315 - accuracy:  
0.9592  
Epoch 16253/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0312 - accuracy:  
0.9594  
Epoch 16254/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9602  
Epoch 16255/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9604  
Epoch 16256/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0322 - accuracy:  
0.9600  
Epoch 16257/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9598  
Epoch 16258/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9593  
Epoch 16259/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9596  
Epoch 16260/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0327 - accuracy:  
0.9594  
Epoch 16261/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0319 - accuracy:  
0.9596  
Epoch 16262/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9588  
Epoch 16263/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9594  
Epoch 16264/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9601  
Epoch 16265/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9595  
Epoch 16266/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9588  
Epoch 16267/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0322 - accuracy:  
0.9596  
Epoch 16268/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9593  
Epoch 16269/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9594  
Epoch 16270/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9594  
Epoch 16271/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9603  
Epoch 16272/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy: 0.9589  
Epoch 16273/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy: 0.9594  
Epoch 16274/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy: 0.9597  
Epoch 16275/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy: 0.9594  
Epoch 16276/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy: 0.9594  
Epoch 16277/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9593  
Epoch 16278/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy: 0.9599  
Epoch 16279/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0314 - accuracy: 0.9606  
Epoch 16280/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0312 - accuracy: 0.9594  
Epoch 16281/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0310 - accuracy: 0.9592  
Epoch 16282/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy: 0.9592  
Epoch 16283/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9598  
Epoch 16284/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy: 0.9596  
Epoch 16285/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy: 0.9604  
Epoch 16286/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0319 - accuracy: 0.9599  
Epoch 16287/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy: 0.9588  
Epoch 16288/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0342 - accuracy: 0.9600  
Epoch 16289/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy: 0.9602  
Epoch 16290/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy: 0.9601  
Epoch 16291/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0333 - accuracy: 0.9596  
Epoch 16292/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy: 0.9599  
Epoch 16293/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0343 - accuracy: 0.9595  
Epoch 16294/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy: 0.9597  
Epoch 16295/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy: 0.9604  
Epoch 16296/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy: 0.9609  
Epoch 16297/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy: 0.9585  
Epoch 16298/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy: 0.9600  
Epoch 16299/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy: 0.9595  
Epoch 16300/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy: 0.9598  
Epoch 16301/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy: 0.9594  
Epoch 16302/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy: 0.9607  
Epoch 16303/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy: 0.9593  
Epoch 16304/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0311 - accuracy:  
0.9602  
Epoch 16305/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9588  
Epoch 16306/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9600  
Epoch 16307/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9595  
Epoch 16308/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0314 - accuracy:  
0.9595  
Epoch 16309/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9592  
Epoch 16310/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0315 - accuracy:  
0.9601  
Epoch 16311/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9597  
Epoch 16312/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9594  
Epoch 16313/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9598  
Epoch 16314/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0320 - accuracy:  
0.9592  
Epoch 16315/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9587  
Epoch 16316/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0314 - accuracy:  
0.9596  
Epoch 16317/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9593  
Epoch 16318/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9595  
Epoch 16319/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9596  
Epoch 16320/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9588  
Epoch 16321/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0311 - accuracy:  
0.9591  
Epoch 16322/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9604  
Epoch 16323/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9604  
Epoch 16324/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9594  
Epoch 16325/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0314 - accuracy:  
0.9596  
Epoch 16326/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy:  
0.9595  
Epoch 16327/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9595  
Epoch 16328/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9602  
Epoch 16329/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9598  
Epoch 16330/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9589  
Epoch 16331/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9598  
Epoch 16332/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9601  
Epoch 16333/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9590  
Epoch 16334/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9596  
Epoch 16335/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0313 - accuracy:  
0.9591  
Epoch 16336/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy:  
0.9596  
Epoch 16337/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9593  
Epoch 16338/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9593  
Epoch 16339/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9587  
Epoch 16340/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9595  
Epoch 16341/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0328 - accuracy:  
0.9593  
Epoch 16342/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9601  
Epoch 16343/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0322 - accuracy:  
0.9598  
Epoch 16344/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy:  
0.9593  
Epoch 16345/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0317 - accuracy:  
0.9596  
Epoch 16346/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0319 - accuracy:  
0.9595  
Epoch 16347/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9586  
Epoch 16348/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0328 - accuracy:  
0.9595  
Epoch 16349/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9605  
Epoch 16350/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9595  
Epoch 16351/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0326 - accuracy:  
0.9594  
Epoch 16352/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9596  
Epoch 16353/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9591  
Epoch 16354/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9596  
Epoch 16355/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9585  
Epoch 16356/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0342 - accuracy:  
0.9608  
Epoch 16357/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0336 - accuracy:  
0.9591  
Epoch 16358/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9604  
Epoch 16359/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9591  
Epoch 16360/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9598  
Epoch 16361/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0333 - accuracy:  
0.9608  
Epoch 16362/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9588  
Epoch 16363/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9597  
Epoch 16364/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy:  
0.9596  
Epoch 16365/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9604  
Epoch 16366/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0328 - accuracy:  
0.9593  
Epoch 16367/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0326 - accuracy:  
0.9599  
Epoch 16368/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9596  
Epoch 16369/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9589  
Epoch 16370/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9596  
Epoch 16371/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9594  
Epoch 16372/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9602  
Epoch 16373/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9596  
Epoch 16374/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9595  
Epoch 16375/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9602  
Epoch 16376/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9593  
Epoch 16377/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0313 - accuracy:  
0.9593  
Epoch 16378/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9594  
Epoch 16379/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9600  
Epoch 16380/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9595  
Epoch 16381/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9592  
Epoch 16382/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9606  
Epoch 16383/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9595  
Epoch 16384/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9608  
Epoch 16385/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9590  
Epoch 16386/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9602  
Epoch 16387/100000  
2/2 [=====] - 0s 129ms/step - loss: 0.0324 - accuracy:  
0.9597  
Epoch 16388/100000  
2/2 [=====] - 0s 129ms/step - loss: 0.0316 - accuracy:  
0.9595  
Epoch 16389/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0318 - accuracy:  
0.9594  
Epoch 16390/100000  
2/2 [=====] - 0s 127ms/step - loss: 0.0314 - accuracy:  
0.9602  
Epoch 16391/100000  
2/2 [=====] - 0s 126ms/step - loss: 0.0315 - accuracy:  
0.9595  
Epoch 16392/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0315 - accuracy:  
0.9595  
Epoch 16393/100000  
2/2 [=====] - 0s 128ms/step - loss: 0.0314 - accuracy:  
0.9590  
Epoch 16394/100000  
2/2 [=====] - 0s 141ms/step - loss: 0.0315 - accuracy:  
0.9595  
Epoch 16395/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0315 - accuracy:  
0.9597  
Epoch 16396/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9593  
Epoch 16397/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9605  
Epoch 16398/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9605  
Epoch 16399/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0313 - accuracy:  
0.9590  
Epoch 16400/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy: 0.9595  
Epoch 16401/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy: 0.9598  
Epoch 16402/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0314 - accuracy: 0.9594  
Epoch 16403/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0312 - accuracy: 0.9599  
Epoch 16404/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy: 0.9599  
Epoch 16405/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9592  
Epoch 16406/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy: 0.9598  
Epoch 16407/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy: 0.9602  
Epoch 16408/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy: 0.9594  
Epoch 16409/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0320 - accuracy: 0.9597  
Epoch 16410/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0314 - accuracy: 0.9596  
Epoch 16411/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy: 0.9597  
Epoch 16412/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy: 0.9598  
Epoch 16413/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy: 0.9600  
Epoch 16414/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0325 - accuracy: 0.9590  
Epoch 16415/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy: 0.9593  
Epoch 16416/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9591  
Epoch 16417/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0322 - accuracy:  
0.9602  
Epoch 16418/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9593  
Epoch 16419/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0319 - accuracy:  
0.9595  
Epoch 16420/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9596  
Epoch 16421/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9591  
Epoch 16422/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9597  
Epoch 16423/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9592  
Epoch 16424/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0330 - accuracy:  
0.9599  
Epoch 16425/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9592  
Epoch 16426/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9597  
Epoch 16427/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9588  
Epoch 16428/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9605  
Epoch 16429/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9588  
Epoch 16430/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9591  
Epoch 16431/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9589  
Epoch 16432/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0312 - accuracy: 0.9595  
Epoch 16433/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy: 0.9599  
Epoch 16434/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy: 0.9596  
Epoch 16435/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy: 0.9595  
Epoch 16436/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy: 0.9595  
Epoch 16437/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy: 0.9599  
Epoch 16438/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy: 0.9601  
Epoch 16439/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9592  
Epoch 16440/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy: 0.9593  
Epoch 16441/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy: 0.9596  
Epoch 16442/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9601  
Epoch 16443/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9588  
Epoch 16444/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0309 - accuracy: 0.9601  
Epoch 16445/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy: 0.9593  
Epoch 16446/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9597  
Epoch 16447/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0314 - accuracy: 0.9595  
Epoch 16448/100000



2/2 [=====] - 0s 119ms/step - loss: 0.0316 - accuracy:  
0.9605  
Epoch 16449/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9610  
Epoch 16450/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9594  
Epoch 16451/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0314 - accuracy:  
0.9596  
Epoch 16452/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9593  
Epoch 16453/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0315 - accuracy:  
0.9599  
Epoch 16454/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0315 - accuracy:  
0.9599  
Epoch 16455/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9598  
Epoch 16456/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9593  
Epoch 16457/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9594  
Epoch 16458/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9591  
Epoch 16459/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9594  
Epoch 16460/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0324 - accuracy:  
0.9606  
Epoch 16461/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0335 - accuracy:  
0.9606  
Epoch 16462/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0324 - accuracy:  
0.9587  
Epoch 16463/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9590  
Epoch 16464/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy: 0.9603  
Epoch 16465/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0319 - accuracy: 0.9596  
Epoch 16466/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy: 0.9592  
Epoch 16467/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0328 - accuracy: 0.9604  
Epoch 16468/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9594  
Epoch 16469/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy: 0.9599  
Epoch 16470/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0320 - accuracy: 0.9596  
Epoch 16471/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0317 - accuracy: 0.9590  
Epoch 16472/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy: 0.9598  
Epoch 16473/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy: 0.9589  
Epoch 16474/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy: 0.9597  
Epoch 16475/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy: 0.9590  
Epoch 16476/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9595  
Epoch 16477/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy: 0.9597  
Epoch 16478/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy: 0.9599  
Epoch 16479/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy: 0.9600  
Epoch 16480/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0308 - accuracy:  
0.9593  
Epoch 16481/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9593  
Epoch 16482/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0313 - accuracy:  
0.9594  
Epoch 16483/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9597  
Epoch 16484/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9608  
Epoch 16485/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9592  
Epoch 16486/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9596  
Epoch 16487/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9588  
Epoch 16488/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0326 - accuracy:  
0.9593  
Epoch 16489/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
0.9598  
Epoch 16490/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy:  
0.9589  
Epoch 16491/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0329 - accuracy:  
0.9597  
Epoch 16492/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0323 - accuracy:  
0.9603  
Epoch 16493/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9598  
Epoch 16494/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0321 - accuracy:  
0.9600  
Epoch 16495/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9603  
Epoch 16496/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9589  
Epoch 16497/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9595  
Epoch 16498/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9589  
Epoch 16499/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy:  
0.9594  
Epoch 16500/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9601  
Epoch 16501/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9601  
Epoch 16502/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0311 - accuracy:  
0.9598  
Epoch 16503/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9594  
Epoch 16504/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy:  
0.9603  
Epoch 16505/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9593  
Epoch 16506/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0320 - accuracy:  
0.9593  
Epoch 16507/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9595  
Epoch 16508/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9601  
Epoch 16509/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9602  
Epoch 16510/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9596  
Epoch 16511/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0316 - accuracy:  
0.9597  
Epoch 16512/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9589  
Epoch 16513/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9605  
Epoch 16514/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9590  
Epoch 16515/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9602  
Epoch 16516/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9601  
Epoch 16517/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9593  
Epoch 16518/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9589  
Epoch 16519/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9599  
Epoch 16520/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy:  
0.9601  
Epoch 16521/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9605  
Epoch 16522/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9593  
Epoch 16523/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9578  
Epoch 16524/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9604  
Epoch 16525/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9594  
Epoch 16526/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9593  
Epoch 16527/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9596  
Epoch 16528/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9599  
Epoch 16529/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9593  
Epoch 16530/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0330 - accuracy:  
0.9593  
Epoch 16531/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9590  
Epoch 16532/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0319 - accuracy:  
0.9598  
Epoch 16533/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9606  
Epoch 16534/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0320 - accuracy:  
0.9598  
Epoch 16535/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9603  
Epoch 16536/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9601  
Epoch 16537/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9597  
Epoch 16538/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0316 - accuracy:  
0.9592  
Epoch 16539/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9588  
Epoch 16540/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0318 - accuracy:  
0.9593  
Epoch 16541/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9600  
Epoch 16542/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0326 - accuracy:  
0.9604  
Epoch 16543/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0322 - accuracy:  
0.9592  
Epoch 16544/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9601  
Epoch 16545/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9593  
Epoch 16546/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9604  
Epoch 16547/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9596  
Epoch 16548/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9603  
Epoch 16549/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9599  
Epoch 16550/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9596  
Epoch 16551/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9595  
Epoch 16552/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9592  
Epoch 16553/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9592  
Epoch 16554/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0313 - accuracy:  
0.9601  
Epoch 16555/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9603  
Epoch 16556/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9594  
Epoch 16557/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9600  
Epoch 16558/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9600  
Epoch 16559/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9586  
Epoch 16560/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9605  
Epoch 16561/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9589  
Epoch 16562/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9609  
Epoch 16563/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9599  
Epoch 16564/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9592  
Epoch 16565/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0317 - accuracy:  
0.9595  
Epoch 16566/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0314 - accuracy:  
0.9593  
Epoch 16567/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9587  
Epoch 16568/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9594  
Epoch 16569/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9594  
Epoch 16570/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9613  
Epoch 16571/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9594  
Epoch 16572/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9585  
Epoch 16573/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0312 - accuracy:  
0.9598  
Epoch 16574/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9590  
Epoch 16575/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9595  
Epoch 16576/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9589  
 Epoch 16577/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy: 0.9593  
 Epoch 16578/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy: 0.9592  
 Epoch 16579/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy: 0.9592  
 Epoch 16580/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy: 0.9605  
 Epoch 16581/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9602  
 Epoch 16582/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy: 0.9597  
 Epoch 16583/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy: 0.9586  
 Epoch 16584/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy: 0.9599  
 Epoch 16585/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0325 - accuracy: 0.9598  
 Epoch 16586/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy: 0.9600  
 Epoch 16587/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy: 0.9597  
 Epoch 16588/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0322 - accuracy: 0.9598  
 Epoch 16589/100000  
 2/2 [=====] - 0s 121ms/step - loss: 0.0338 - accuracy: 0.9589  
 Epoch 16590/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy: 0.9591  
 Epoch 16591/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0332 - accuracy: 0.9591  
 Epoch 16592/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0350 - accuracy:  
0.9604  
Epoch 16593/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9587  
Epoch 16594/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9587  
Epoch 16595/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0329 - accuracy:  
0.9598  
Epoch 16596/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy:  
0.9598  
Epoch 16597/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9599  
Epoch 16598/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9598  
Epoch 16599/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9596  
Epoch 16600/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9593  
Epoch 16601/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9598  
Epoch 16602/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0324 - accuracy:  
0.9603  
Epoch 16603/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9600  
Epoch 16604/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9596  
Epoch 16605/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9593  
Epoch 16606/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0321 - accuracy:  
0.9593  
Epoch 16607/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9604  
Epoch 16608/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9602  
Epoch 16609/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0319 - accuracy:  
0.9591  
Epoch 16610/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy:  
0.9599  
Epoch 16611/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9609  
Epoch 16612/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0320 - accuracy:  
0.9589  
Epoch 16613/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9593  
Epoch 16614/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9594  
Epoch 16615/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9597  
Epoch 16616/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0329 - accuracy:  
0.9594  
Epoch 16617/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0320 - accuracy:  
0.9604  
Epoch 16618/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9601  
Epoch 16619/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9601  
Epoch 16620/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy:  
0.9604  
Epoch 16621/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9595  
Epoch 16622/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9590  
Epoch 16623/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy:  
0.9599  
Epoch 16624/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0316 - accuracy:  
0.9602  
Epoch 16625/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9605  
Epoch 16626/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9588  
Epoch 16627/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9598  
Epoch 16628/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy:  
0.9589  
Epoch 16629/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9600  
Epoch 16630/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9591  
Epoch 16631/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0314 - accuracy:  
0.9584  
Epoch 16632/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0318 - accuracy:  
0.9593  
Epoch 16633/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9591  
Epoch 16634/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9602  
Epoch 16635/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0321 - accuracy:  
0.9594  
Epoch 16636/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9594  
Epoch 16637/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9600  
Epoch 16638/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9590  
Epoch 16639/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9595  
Epoch 16640/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9600  
Epoch 16641/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy:  
0.9591  
Epoch 16642/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy:  
0.9595  
Epoch 16643/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9594  
Epoch 16644/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9601  
Epoch 16645/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0319 - accuracy:  
0.9595  
Epoch 16646/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0318 - accuracy:  
0.9602  
Epoch 16647/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9594  
Epoch 16648/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9595  
Epoch 16649/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9588  
Epoch 16650/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9590  
Epoch 16651/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0319 - accuracy:  
0.9588  
Epoch 16652/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9600  
Epoch 16653/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0317 - accuracy:  
0.9584  
Epoch 16654/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0313 - accuracy:  
0.9603  
Epoch 16655/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0323 - accuracy:  
0.9598  
Epoch 16656/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9585  
Epoch 16657/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9586  
Epoch 16658/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0315 - accuracy:  
0.9595  
Epoch 16659/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9600  
Epoch 16660/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy:  
0.9596  
Epoch 16661/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9602  
Epoch 16662/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9592  
Epoch 16663/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9601  
Epoch 16664/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0326 - accuracy:  
0.9598  
Epoch 16665/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0318 - accuracy:  
0.9590  
Epoch 16666/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0321 - accuracy:  
0.9594  
Epoch 16667/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0311 - accuracy:  
0.9604  
Epoch 16668/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9602  
Epoch 16669/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0312 - accuracy:  
0.9590  
Epoch 16670/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9594  
Epoch 16671/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9597  
Epoch 16672/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0316 - accuracy:  
0.9590  
Epoch 16673/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0320 - accuracy:  
0.9588  
Epoch 16674/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9594  
Epoch 16675/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9592  
Epoch 16676/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0317 - accuracy:  
0.9595  
Epoch 16677/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9601  
Epoch 16678/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9596  
Epoch 16679/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9600  
Epoch 16680/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9602  
Epoch 16681/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9599  
Epoch 16682/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0310 - accuracy:  
0.9591  
Epoch 16683/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9607  
Epoch 16684/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9601  
Epoch 16685/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9597  
Epoch 16686/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9588  
Epoch 16687/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9598  
Epoch 16688/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0314 - accuracy:  
0.9595  
Epoch 16689/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0316 - accuracy:  
0.9590  
Epoch 16690/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9595  
Epoch 16691/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9606  
Epoch 16692/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9596  
Epoch 16693/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0319 - accuracy:  
0.9603  
Epoch 16694/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9597  
Epoch 16695/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9600  
Epoch 16696/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9590  
Epoch 16697/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9596  
Epoch 16698/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9601  
Epoch 16699/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9596  
Epoch 16700/100000  
2/2 [=====] - 0s 151ms/step - loss: 0.0312 - accuracy:  
0.9593  
Epoch 16701/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0320 - accuracy:  
0.9602  
Epoch 16702/100000  
2/2 [=====] - 0s 127ms/step - loss: 0.0317 - accuracy:  
0.9604  
Epoch 16703/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0315 - accuracy:  
0.9600  
Epoch 16704/100000



2/2 [=====] - 0s 130ms/step - loss: 0.0316 - accuracy:  
0.9604  
Epoch 16705/100000  
2/2 [=====] - 0s 129ms/step - loss: 0.0312 - accuracy:  
0.9599  
Epoch 16706/100000  
2/2 [=====] - 0s 132ms/step - loss: 0.0314 - accuracy:  
0.9598  
Epoch 16707/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0317 - accuracy:  
0.9609  
Epoch 16708/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0317 - accuracy:  
0.9607  
Epoch 16709/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9609  
Epoch 16710/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9600  
Epoch 16711/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9603  
Epoch 16712/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy:  
0.9592  
Epoch 16713/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9589  
Epoch 16714/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9597  
Epoch 16715/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9598  
Epoch 16716/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9592  
Epoch 16717/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9597  
Epoch 16718/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9597  
Epoch 16719/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9591  
Epoch 16720/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0317 - accuracy:  
0.9607  
Epoch 16721/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0318 - accuracy:  
0.9597  
Epoch 16722/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9597  
Epoch 16723/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0320 - accuracy:  
0.9592  
Epoch 16724/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9600  
Epoch 16725/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0314 - accuracy:  
0.9590  
Epoch 16726/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9596  
Epoch 16727/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9596  
Epoch 16728/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0315 - accuracy:  
0.9593  
Epoch 16729/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9598  
Epoch 16730/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9592  
Epoch 16731/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0312 - accuracy:  
0.9593  
Epoch 16732/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9594  
Epoch 16733/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9598  
Epoch 16734/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9596  
Epoch 16735/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy:  
0.9600  
Epoch 16736/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9600  
Epoch 16737/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9600  
Epoch 16738/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy:  
0.9588  
Epoch 16739/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9591  
Epoch 16740/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9603  
Epoch 16741/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9594  
Epoch 16742/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9603  
Epoch 16743/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9593  
Epoch 16744/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9584  
Epoch 16745/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9601  
Epoch 16746/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0319 - accuracy:  
0.9590  
Epoch 16747/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9598  
Epoch 16748/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9600  
Epoch 16749/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9592  
Epoch 16750/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy:  
0.9590  
Epoch 16751/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9593  
Epoch 16752/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9590  
Epoch 16753/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9601  
Epoch 16754/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9600  
Epoch 16755/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9596  
Epoch 16756/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0318 - accuracy:  
0.9599  
Epoch 16757/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9607  
Epoch 16758/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0310 - accuracy:  
0.9591  
Epoch 16759/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0315 - accuracy:  
0.9600  
Epoch 16760/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9607  
Epoch 16761/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9593  
Epoch 16762/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9586  
Epoch 16763/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0320 - accuracy:  
0.9602  
Epoch 16764/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9607  
Epoch 16765/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9598  
Epoch 16766/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9598  
Epoch 16767/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0315 - accuracy:  
0.9600  
Epoch 16768/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0311 - accuracy:  
0.9596  
Epoch 16769/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9599  
Epoch 16770/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9598  
Epoch 16771/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9602  
Epoch 16772/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9597  
Epoch 16773/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0314 - accuracy:  
0.9598  
Epoch 16774/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9595  
Epoch 16775/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9604  
Epoch 16776/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9597  
Epoch 16777/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9605  
Epoch 16778/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0321 - accuracy:  
0.9585  
Epoch 16779/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9583  
Epoch 16780/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9593  
Epoch 16781/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9604  
Epoch 16782/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0321 - accuracy:  
0.9601  
Epoch 16783/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9592  
Epoch 16784/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9601  
Epoch 16785/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy:  
0.9594  
Epoch 16786/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9603  
Epoch 16787/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0315 - accuracy:  
0.9604  
Epoch 16788/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9607  
Epoch 16789/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0322 - accuracy:  
0.9604  
Epoch 16790/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9596  
Epoch 16791/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0312 - accuracy:  
0.9604  
Epoch 16792/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9597  
Epoch 16793/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9594  
Epoch 16794/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9593  
Epoch 16795/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9593  
Epoch 16796/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0317 - accuracy:  
0.9596  
Epoch 16797/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0311 - accuracy:  
0.9597  
Epoch 16798/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9596  
Epoch 16799/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9598  
Epoch 16800/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9596  
Epoch 16801/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0312 - accuracy:  
0.9597  
Epoch 16802/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0311 - accuracy:  
0.9605  
Epoch 16803/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9604  
Epoch 16804/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9602  
Epoch 16805/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0313 - accuracy:  
0.9597  
Epoch 16806/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9595  
Epoch 16807/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9592  
Epoch 16808/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9596  
Epoch 16809/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0313 - accuracy:  
0.9601  
Epoch 16810/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9599  
Epoch 16811/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9591  
Epoch 16812/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9590  
Epoch 16813/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9599  
Epoch 16814/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9589  
Epoch 16815/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9595  
Epoch 16816/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy: 0.9597  
Epoch 16817/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0314 - accuracy: 0.9595  
Epoch 16818/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0324 - accuracy: 0.9590  
Epoch 16819/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy: 0.9603  
Epoch 16820/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy: 0.9599  
Epoch 16821/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0345 - accuracy: 0.9607  
Epoch 16822/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy: 0.9595  
Epoch 16823/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy: 0.9590  
Epoch 16824/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy: 0.9603  
Epoch 16825/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy: 0.9601  
Epoch 16826/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy: 0.9607  
Epoch 16827/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy: 0.9605  
Epoch 16828/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9609  
Epoch 16829/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy: 0.9594  
Epoch 16830/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0312 - accuracy: 0.9594  
Epoch 16831/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9596  
Epoch 16832/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9599  
Epoch 16833/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0313 - accuracy: 0.9586  
Epoch 16834/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy: 0.9590  
Epoch 16835/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy: 0.9594  
Epoch 16836/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy: 0.9597  
Epoch 16837/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9588  
Epoch 16838/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9602  
Epoch 16839/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9589  
Epoch 16840/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy: 0.9594  
Epoch 16841/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy: 0.9607  
Epoch 16842/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0331 - accuracy: 0.9592  
Epoch 16843/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0318 - accuracy: 0.9599  
Epoch 16844/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9592  
Epoch 16845/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy: 0.9591  
Epoch 16846/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0314 - accuracy: 0.9593  
Epoch 16847/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0314 - accuracy: 0.9595  
Epoch 16848/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9605  
Epoch 16849/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9608  
Epoch 16850/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9604  
Epoch 16851/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0325 - accuracy:  
0.9594  
Epoch 16852/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9599  
Epoch 16853/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9596  
Epoch 16854/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9602  
Epoch 16855/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9609  
Epoch 16856/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9597  
Epoch 16857/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9605  
Epoch 16858/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0321 - accuracy:  
0.9594  
Epoch 16859/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0318 - accuracy:  
0.9588  
Epoch 16860/100000  
2/2 [=====] - 0s 131ms/step - loss: 0.0313 - accuracy:  
0.9599  
Epoch 16861/100000  
2/2 [=====] - 0s 127ms/step - loss: 0.0318 - accuracy:  
0.9591  
Epoch 16862/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0313 - accuracy:  
0.9589  
Epoch 16863/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0319 - accuracy:  
0.9594  
Epoch 16864/100000

2/2 [=====] - 0s 124ms/step - loss: 0.0315 - accuracy:  
0.9593  
Epoch 16865/100000  
2/2 [=====] - 0s 126ms/step - loss: 0.0315 - accuracy:  
0.9587  
Epoch 16866/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9605  
Epoch 16867/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9602  
Epoch 16868/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0317 - accuracy:  
0.9595  
Epoch 16869/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9598  
Epoch 16870/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0316 - accuracy:  
0.9590  
Epoch 16871/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0314 - accuracy:  
0.9599  
Epoch 16872/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0309 - accuracy:  
0.9591  
Epoch 16873/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9597  
Epoch 16874/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9598  
Epoch 16875/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0313 - accuracy:  
0.9601  
Epoch 16876/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9597  
Epoch 16877/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0313 - accuracy:  
0.9604  
Epoch 16878/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9598  
Epoch 16879/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9598  
Epoch 16880/100000

2/2 [=====] - 0s 119ms/step - loss: 0.0316 - accuracy:  
0.9598  
Epoch 16881/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9597  
Epoch 16882/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9600  
Epoch 16883/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9583  
Epoch 16884/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9600  
Epoch 16885/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy:  
0.9595  
Epoch 16886/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9598  
Epoch 16887/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9592  
Epoch 16888/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9591  
Epoch 16889/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9610  
Epoch 16890/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9596  
Epoch 16891/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9607  
Epoch 16892/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0321 - accuracy:  
0.9591  
Epoch 16893/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0336 - accuracy:  
0.9601  
Epoch 16894/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9604  
Epoch 16895/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9596  
Epoch 16896/100000

2/2 [=====] - 0s 120ms/step - loss: 0.0328 - accuracy:  
0.9601  
Epoch 16897/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0333 - accuracy:  
0.9596  
Epoch 16898/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy:  
0.9590  
Epoch 16899/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0330 - accuracy:  
0.9603  
Epoch 16900/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9593  
Epoch 16901/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9590  
Epoch 16902/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9596  
Epoch 16903/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9600  
Epoch 16904/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9596  
Epoch 16905/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9599  
Epoch 16906/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0325 - accuracy:  
0.9598  
Epoch 16907/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0319 - accuracy:  
0.9608  
Epoch 16908/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9596  
Epoch 16909/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9590  
Epoch 16910/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9601  
Epoch 16911/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9592  
Epoch 16912/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9591  
Epoch 16913/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9588  
Epoch 16914/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0314 - accuracy:  
0.9591  
Epoch 16915/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9599  
Epoch 16916/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9593  
Epoch 16917/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0312 - accuracy:  
0.9596  
Epoch 16918/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9596  
Epoch 16919/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0309 - accuracy:  
0.9597  
Epoch 16920/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9590  
Epoch 16921/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9598  
Epoch 16922/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9586  
Epoch 16923/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9601  
Epoch 16924/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy:  
0.9601  
Epoch 16925/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0314 - accuracy:  
0.9591  
Epoch 16926/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9604  
Epoch 16927/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0329 - accuracy:  
0.9595  
Epoch 16928/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0340 - accuracy:  
0.9595  
Epoch 16929/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9599  
Epoch 16930/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0336 - accuracy:  
0.9592  
Epoch 16931/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0364 - accuracy:  
0.9595  
Epoch 16932/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0352 - accuracy:  
0.9604  
Epoch 16933/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0352 - accuracy:  
0.9601  
Epoch 16934/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0354 - accuracy:  
0.9600  
Epoch 16935/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy:  
0.9600  
Epoch 16936/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy:  
0.9592  
Epoch 16937/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0335 - accuracy:  
0.9602  
Epoch 16938/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0337 - accuracy:  
0.9599  
Epoch 16939/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9593  
Epoch 16940/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9601  
Epoch 16941/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9604  
Epoch 16942/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy:  
0.9599  
Epoch 16943/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0317 - accuracy:  
0.9593  
Epoch 16944/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0324 - accuracy:  
0.9598  
Epoch 16945/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9598  
Epoch 16946/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9596  
Epoch 16947/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9598  
Epoch 16948/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9607  
Epoch 16949/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy:  
0.9601  
Epoch 16950/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9597  
Epoch 16951/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0310 - accuracy:  
0.9593  
Epoch 16952/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0314 - accuracy:  
0.9593  
Epoch 16953/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0317 - accuracy:  
0.9595  
Epoch 16954/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0314 - accuracy:  
0.9588  
Epoch 16955/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0309 - accuracy:  
0.9598  
Epoch 16956/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9601  
Epoch 16957/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9602  
Epoch 16958/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0309 - accuracy:  
0.9596  
Epoch 16959/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0311 - accuracy:  
0.9596  
Epoch 16960/100000



2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9601  
Epoch 16961/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9590  
Epoch 16962/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0311 - accuracy:  
0.9590  
Epoch 16963/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0315 - accuracy:  
0.9601  
Epoch 16964/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9598  
Epoch 16965/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9601  
Epoch 16966/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9595  
Epoch 16967/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9600  
Epoch 16968/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9590  
Epoch 16969/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9603  
Epoch 16970/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9593  
Epoch 16971/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9604  
Epoch 16972/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9607  
Epoch 16973/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9599  
Epoch 16974/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9589  
Epoch 16975/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9594  
Epoch 16976/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0310 - accuracy:  
0.9593  
Epoch 16977/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9609  
Epoch 16978/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9590  
Epoch 16979/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy:  
0.9594  
Epoch 16980/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9605  
Epoch 16981/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0319 - accuracy:  
0.9593  
Epoch 16982/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9601  
Epoch 16983/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0324 - accuracy:  
0.9604  
Epoch 16984/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0316 - accuracy:  
0.9596  
Epoch 16985/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9597  
Epoch 16986/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9593  
Epoch 16987/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9600  
Epoch 16988/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9605  
Epoch 16989/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9589  
Epoch 16990/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0326 - accuracy:  
0.9605  
Epoch 16991/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9606  
Epoch 16992/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy: 0.9595  
Epoch 16993/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0348 - accuracy: 0.9601  
Epoch 16994/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0336 - accuracy: 0.9591  
Epoch 16995/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0327 - accuracy: 0.9594  
Epoch 16996/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy: 0.9585  
Epoch 16997/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0315 - accuracy: 0.9589  
Epoch 16998/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy: 0.9591  
Epoch 16999/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy: 0.9604  
Epoch 17000/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy: 0.9596  
Epoch 17001/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0319 - accuracy: 0.9602  
Epoch 17002/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy: 0.9599  
Epoch 17003/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0316 - accuracy: 0.9601  
Epoch 17004/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy: 0.9602  
Epoch 17005/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy: 0.9592  
Epoch 17006/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0322 - accuracy: 0.9597  
Epoch 17007/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy: 0.9592  
Epoch 17008/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9602  
Epoch 17009/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9594  
Epoch 17010/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0328 - accuracy:  
0.9601  
Epoch 17011/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0329 - accuracy:  
0.9592  
Epoch 17012/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy:  
0.9602  
Epoch 17013/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0327 - accuracy:  
0.9592  
Epoch 17014/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0330 - accuracy:  
0.9598  
Epoch 17015/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9593  
Epoch 17016/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9597  
Epoch 17017/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0324 - accuracy:  
0.9596  
Epoch 17018/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9585  
Epoch 17019/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9590  
Epoch 17020/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9607  
Epoch 17021/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0317 - accuracy:  
0.9589  
Epoch 17022/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9588  
Epoch 17023/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9603  
Epoch 17024/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy: 0.9595  
Epoch 17025/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9597  
Epoch 17026/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy: 0.9600  
Epoch 17027/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy: 0.9607  
Epoch 17028/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9591  
Epoch 17029/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy: 0.9595  
Epoch 17030/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0318 - accuracy: 0.9598  
Epoch 17031/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9598  
Epoch 17032/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy: 0.9605  
Epoch 17033/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9591  
Epoch 17034/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy: 0.9597  
Epoch 17035/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy: 0.9597  
Epoch 17036/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0313 - accuracy: 0.9599  
Epoch 17037/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0311 - accuracy: 0.9594  
Epoch 17038/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy: 0.9586  
Epoch 17039/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9588  
Epoch 17040/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy:  
0.9595  
Epoch 17041/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy:  
0.9593  
Epoch 17042/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9595  
Epoch 17043/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9588  
Epoch 17044/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9593  
Epoch 17045/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0320 - accuracy:  
0.9598  
Epoch 17046/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9602  
Epoch 17047/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9590  
Epoch 17048/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9594  
Epoch 17049/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9597  
Epoch 17050/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9603  
Epoch 17051/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9593  
Epoch 17052/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9594  
Epoch 17053/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9604  
Epoch 17054/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9592  
Epoch 17055/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy:  
0.9597  
Epoch 17056/100000

2/2 [=====] - 0s 121ms/step - loss: 0.0313 - accuracy:  
0.9597  
Epoch 17057/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9594  
Epoch 17058/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9592  
Epoch 17059/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9594  
Epoch 17060/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9602  
Epoch 17061/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9604  
Epoch 17062/100000  
2/2 [=====] - 0s 126ms/step - loss: 0.0315 - accuracy:  
0.9595  
Epoch 17063/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9592  
Epoch 17064/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9587  
Epoch 17065/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9598  
Epoch 17066/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9601  
Epoch 17067/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9603  
Epoch 17068/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9601  
Epoch 17069/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy:  
0.9586  
Epoch 17070/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9597  
Epoch 17071/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0316 - accuracy:  
0.9608  
Epoch 17072/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0308 - accuracy:  
0.9593  
Epoch 17073/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0317 - accuracy:  
0.9597  
Epoch 17074/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0307 - accuracy:  
0.9592  
Epoch 17075/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy:  
0.9597  
Epoch 17076/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0311 - accuracy:  
0.9591  
Epoch 17077/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9595  
Epoch 17078/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9593  
Epoch 17079/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9596  
Epoch 17080/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9598  
Epoch 17081/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9596  
Epoch 17082/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9603  
Epoch 17083/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9597  
Epoch 17084/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy:  
0.9590  
Epoch 17085/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9596  
Epoch 17086/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9593  
Epoch 17087/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9595  
Epoch 17088/100000



2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9601  
Epoch 17089/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9594  
Epoch 17090/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9603  
Epoch 17091/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9586  
Epoch 17092/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0321 - accuracy:  
0.9596  
Epoch 17093/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0320 - accuracy:  
0.9596  
Epoch 17094/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0329 - accuracy:  
0.9601  
Epoch 17095/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9605  
Epoch 17096/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9599  
Epoch 17097/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0321 - accuracy:  
0.9596  
Epoch 17098/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0330 - accuracy:  
0.9589  
Epoch 17099/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9600  
Epoch 17100/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9583  
Epoch 17101/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0324 - accuracy:  
0.9603  
Epoch 17102/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0319 - accuracy:  
0.9603  
Epoch 17103/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0316 - accuracy:  
0.9596  
Epoch 17104/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy: 0.9605  
Epoch 17105/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy: 0.9594  
Epoch 17106/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy: 0.9597  
Epoch 17107/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9600  
Epoch 17108/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy: 0.9599  
Epoch 17109/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy: 0.9596  
Epoch 17110/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy: 0.9598  
Epoch 17111/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9599  
Epoch 17112/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy: 0.9595  
Epoch 17113/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy: 0.9596  
Epoch 17114/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy: 0.9599  
Epoch 17115/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy: 0.9588  
Epoch 17116/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy: 0.9596  
Epoch 17117/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy: 0.9602  
Epoch 17118/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9599  
Epoch 17119/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0319 - accuracy: 0.9596  
Epoch 17120/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9595  
Epoch 17121/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0318 - accuracy:  
0.9601  
Epoch 17122/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9591  
Epoch 17123/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0315 - accuracy:  
0.9599  
Epoch 17124/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0310 - accuracy:  
0.9589  
Epoch 17125/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9604  
Epoch 17126/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9595  
Epoch 17127/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9599  
Epoch 17128/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9601  
Epoch 17129/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9599  
Epoch 17130/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0312 - accuracy:  
0.9588  
Epoch 17131/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9593  
Epoch 17132/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9592  
Epoch 17133/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9597  
Epoch 17134/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9589  
Epoch 17135/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9611  
Epoch 17136/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9602  
Epoch 17137/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9599  
Epoch 17138/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9602  
Epoch 17139/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0328 - accuracy:  
0.9599  
Epoch 17140/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9585  
Epoch 17141/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0318 - accuracy:  
0.9600  
Epoch 17142/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0331 - accuracy:  
0.9590  
Epoch 17143/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0330 - accuracy:  
0.9595  
Epoch 17144/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9590  
Epoch 17145/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9593  
Epoch 17146/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0318 - accuracy:  
0.9593  
Epoch 17147/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9597  
Epoch 17148/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9596  
Epoch 17149/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0317 - accuracy:  
0.9600  
Epoch 17150/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0314 - accuracy:  
0.9591  
Epoch 17151/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy:  
0.9592  
Epoch 17152/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0323 - accuracy: 0.9604  
Epoch 17153/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0326 - accuracy: 0.9597  
Epoch 17154/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0341 - accuracy: 0.9591  
Epoch 17155/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0332 - accuracy: 0.9598  
Epoch 17156/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy: 0.9603  
Epoch 17157/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy: 0.9595  
Epoch 17158/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0324 - accuracy: 0.9608  
Epoch 17159/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy: 0.9590  
Epoch 17160/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy: 0.9589  
Epoch 17161/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy: 0.9610  
Epoch 17162/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy: 0.9593  
Epoch 17163/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy: 0.9594  
Epoch 17164/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy: 0.9596  
Epoch 17165/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9595  
Epoch 17166/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy: 0.9594  
Epoch 17167/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy: 0.9596  
Epoch 17168/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9607  
Epoch 17169/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0326 - accuracy:  
0.9596  
Epoch 17170/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0326 - accuracy:  
0.9592  
Epoch 17171/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9600  
Epoch 17172/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9607  
Epoch 17173/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0327 - accuracy:  
0.9590  
Epoch 17174/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0321 - accuracy:  
0.9601  
Epoch 17175/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0319 - accuracy:  
0.9594  
Epoch 17176/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9602  
Epoch 17177/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9593  
Epoch 17178/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9602  
Epoch 17179/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9602  
Epoch 17180/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy:  
0.9595  
Epoch 17181/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9598  
Epoch 17182/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9597  
Epoch 17183/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9602  
Epoch 17184/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy: 0.9591  
Epoch 17185/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0317 - accuracy: 0.9605  
Epoch 17186/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy: 0.9594  
Epoch 17187/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0314 - accuracy: 0.9593  
Epoch 17188/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy: 0.9593  
Epoch 17189/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy: 0.9603  
Epoch 17190/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0311 - accuracy: 0.9601  
Epoch 17191/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy: 0.9596  
Epoch 17192/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9595  
Epoch 17193/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy: 0.9602  
Epoch 17194/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0308 - accuracy: 0.9597  
Epoch 17195/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy: 0.9595  
Epoch 17196/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy: 0.9606  
Epoch 17197/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy: 0.9591  
Epoch 17198/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy: 0.9594  
Epoch 17199/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0314 - accuracy: 0.9600  
Epoch 17200/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9598  
Epoch 17201/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9598  
Epoch 17202/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9604  
Epoch 17203/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9591  
Epoch 17204/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0328 - accuracy:  
0.9596  
Epoch 17205/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9596  
Epoch 17206/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9601  
Epoch 17207/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9607  
Epoch 17208/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9600  
Epoch 17209/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9589  
Epoch 17210/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9606  
Epoch 17211/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9601  
Epoch 17212/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9587  
Epoch 17213/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9597  
Epoch 17214/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0313 - accuracy:  
0.9598  
Epoch 17215/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9597  
Epoch 17216/100000



2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy:  
0.9604  
Epoch 17217/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9592  
Epoch 17218/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9600  
Epoch 17219/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9593  
Epoch 17220/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9599  
Epoch 17221/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9596  
Epoch 17222/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9588  
Epoch 17223/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0337 - accuracy:  
0.9600  
Epoch 17224/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9602  
Epoch 17225/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0344 - accuracy:  
0.9595  
Epoch 17226/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0346 - accuracy:  
0.9591  
Epoch 17227/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9601  
Epoch 17228/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9599  
Epoch 17229/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9600  
Epoch 17230/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0324 - accuracy:  
0.9596  
Epoch 17231/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0325 - accuracy:  
0.9606  
Epoch 17232/100000

2/2 [=====] - 0s 119ms/step - loss: 0.0324 - accuracy:  
0.9591  
Epoch 17233/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9596  
Epoch 17234/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9608  
Epoch 17235/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9587  
Epoch 17236/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9597  
Epoch 17237/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0316 - accuracy:  
0.9590  
Epoch 17238/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0320 - accuracy:  
0.9606  
Epoch 17239/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9591  
Epoch 17240/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9588  
Epoch 17241/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9600  
Epoch 17242/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9599  
Epoch 17243/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9587  
Epoch 17244/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9590  
Epoch 17245/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0313 - accuracy:  
0.9595  
Epoch 17246/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9589  
Epoch 17247/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9590  
Epoch 17248/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy: 0.9588  
Epoch 17249/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy: 0.9597  
Epoch 17250/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9598  
Epoch 17251/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy: 0.9597  
Epoch 17252/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy: 0.9601  
Epoch 17253/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0319 - accuracy: 0.9595  
Epoch 17254/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy: 0.9595  
Epoch 17255/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy: 0.9587  
Epoch 17256/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy: 0.9591  
Epoch 17257/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy: 0.9597  
Epoch 17258/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy: 0.9592  
Epoch 17259/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0312 - accuracy: 0.9595  
Epoch 17260/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0311 - accuracy: 0.9582  
Epoch 17261/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy: 0.9591  
Epoch 17262/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy: 0.9590  
Epoch 17263/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy: 0.9602  
Epoch 17264/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9589  
Epoch 17265/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0314 - accuracy:  
0.9601  
Epoch 17266/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9593  
Epoch 17267/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9596  
Epoch 17268/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9604  
Epoch 17269/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9599  
Epoch 17270/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0314 - accuracy:  
0.9595  
Epoch 17271/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9595  
Epoch 17272/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0314 - accuracy:  
0.9591  
Epoch 17273/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9606  
Epoch 17274/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9596  
Epoch 17275/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9597  
Epoch 17276/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0329 - accuracy:  
0.9594  
Epoch 17277/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9600  
Epoch 17278/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9590  
Epoch 17279/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0318 - accuracy:  
0.9598  
Epoch 17280/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9593  
Epoch 17281/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0324 - accuracy:  
0.9597  
Epoch 17282/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0320 - accuracy:  
0.9606  
Epoch 17283/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0317 - accuracy:  
0.9597  
Epoch 17284/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0328 - accuracy:  
0.9599  
Epoch 17285/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0321 - accuracy:  
0.9596  
Epoch 17286/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9594  
Epoch 17287/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9597  
Epoch 17288/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9597  
Epoch 17289/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9590  
Epoch 17290/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9597  
Epoch 17291/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9589  
Epoch 17292/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9598  
Epoch 17293/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9597  
Epoch 17294/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9604  
Epoch 17295/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9597  
Epoch 17296/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0316 - accuracy:  
0.9601  
Epoch 17297/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy:  
0.9598  
Epoch 17298/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0308 - accuracy:  
0.9589  
Epoch 17299/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9592  
Epoch 17300/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9594  
Epoch 17301/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0312 - accuracy:  
0.9595  
Epoch 17302/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9601  
Epoch 17303/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9609  
Epoch 17304/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy:  
0.9601  
Epoch 17305/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9598  
Epoch 17306/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9601  
Epoch 17307/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9594  
Epoch 17308/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9599  
Epoch 17309/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9600  
Epoch 17310/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9600  
Epoch 17311/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy:  
0.9589  
Epoch 17312/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9604  
Epoch 17313/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9596  
Epoch 17314/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9600  
Epoch 17315/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9592  
Epoch 17316/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9595  
Epoch 17317/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0315 - accuracy:  
0.9591  
Epoch 17318/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0317 - accuracy:  
0.9597  
Epoch 17319/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9584  
Epoch 17320/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy:  
0.9590  
Epoch 17321/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9598  
Epoch 17322/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9592  
Epoch 17323/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9597  
Epoch 17324/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9592  
Epoch 17325/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0310 - accuracy:  
0.9586  
Epoch 17326/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy:  
0.9594  
Epoch 17327/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9601  
Epoch 17328/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9600  
Epoch 17329/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9590  
Epoch 17330/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9600  
Epoch 17331/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9589  
Epoch 17332/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9592  
Epoch 17333/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9605  
Epoch 17334/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9596  
Epoch 17335/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0323 - accuracy:  
0.9605  
Epoch 17336/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9594  
Epoch 17337/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9589  
Epoch 17338/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9593  
Epoch 17339/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9604  
Epoch 17340/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9594  
Epoch 17341/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0320 - accuracy:  
0.9608  
Epoch 17342/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9593  
Epoch 17343/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0328 - accuracy:  
0.9604  
Epoch 17344/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9600  
Epoch 17345/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9600  
Epoch 17346/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0320 - accuracy:  
0.9605  
Epoch 17347/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9595  
Epoch 17348/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9604  
Epoch 17349/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0333 - accuracy:  
0.9606  
Epoch 17350/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9600  
Epoch 17351/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0318 - accuracy:  
0.9593  
Epoch 17352/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9592  
Epoch 17353/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9601  
Epoch 17354/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9601  
Epoch 17355/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9598  
Epoch 17356/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9594  
Epoch 17357/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9594  
Epoch 17358/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9605  
Epoch 17359/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9590  
Epoch 17360/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9594  
Epoch 17361/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0321 - accuracy:  
0.9593  
Epoch 17362/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9591  
Epoch 17363/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0317 - accuracy:  
0.9590  
Epoch 17364/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9591  
Epoch 17365/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9593  
Epoch 17366/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9589  
Epoch 17367/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0315 - accuracy:  
0.9604  
Epoch 17368/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0315 - accuracy:  
0.9589  
Epoch 17369/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0316 - accuracy:  
0.9603  
Epoch 17370/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9595  
Epoch 17371/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9593  
Epoch 17372/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9598  
Epoch 17373/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0317 - accuracy:  
0.9595  
Epoch 17374/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0316 - accuracy:  
0.9601  
Epoch 17375/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9590  
Epoch 17376/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0324 - accuracy:  
0.9595  
Epoch 17377/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9598  
Epoch 17378/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9598  
Epoch 17379/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy:  
0.9588  
Epoch 17380/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0314 - accuracy:  
0.9595  
Epoch 17381/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0317 - accuracy:  
0.9601  
Epoch 17382/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9603  
Epoch 17383/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9599  
Epoch 17384/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0320 - accuracy:  
0.9589  
Epoch 17385/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9597  
Epoch 17386/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0317 - accuracy:  
0.9600  
Epoch 17387/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9590  
Epoch 17388/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0317 - accuracy:  
0.9598  
Epoch 17389/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9596  
Epoch 17390/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0315 - accuracy:  
0.9598  
Epoch 17391/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9604  
Epoch 17392/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9592  
Epoch 17393/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy: 0.9594  
Epoch 17394/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0315 - accuracy: 0.9609  
Epoch 17395/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy: 0.9600  
Epoch 17396/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9596  
Epoch 17397/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9607  
Epoch 17398/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9594  
Epoch 17399/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9595  
Epoch 17400/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9599  
Epoch 17401/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9588  
Epoch 17402/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy: 0.9592  
Epoch 17403/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9600  
Epoch 17404/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy: 0.9588  
Epoch 17405/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy: 0.9604  
Epoch 17406/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy: 0.9604  
Epoch 17407/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy: 0.9587  
Epoch 17408/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9587  
Epoch 17409/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9599  
Epoch 17410/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy: 0.9594  
Epoch 17411/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0310 - accuracy: 0.9592  
Epoch 17412/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy: 0.9596  
Epoch 17413/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy: 0.9594  
Epoch 17414/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy: 0.9601  
Epoch 17415/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9600  
Epoch 17416/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy: 0.9601  
Epoch 17417/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy: 0.9604  
Epoch 17418/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0313 - accuracy: 0.9601  
Epoch 17419/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy: 0.9604  
Epoch 17420/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy: 0.9596  
Epoch 17421/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy: 0.9605  
Epoch 17422/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy: 0.9602  
Epoch 17423/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy: 0.9597  
Epoch 17424/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9596  
Epoch 17425/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy:  
0.9592  
Epoch 17426/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0315 - accuracy:  
0.9596  
Epoch 17427/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9592  
Epoch 17428/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9597  
Epoch 17429/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9606  
Epoch 17430/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9597  
Epoch 17431/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9597  
Epoch 17432/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0308 - accuracy:  
0.9599  
Epoch 17433/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9598  
Epoch 17434/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9599  
Epoch 17435/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9600  
Epoch 17436/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy:  
0.9594  
Epoch 17437/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9605  
Epoch 17438/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0343 - accuracy:  
0.9603  
Epoch 17439/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0333 - accuracy:  
0.9600  
Epoch 17440/100000

2/2 [=====] - 0s 119ms/step - loss: 0.0322 - accuracy:  
0.9594  
Epoch 17441/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9595  
Epoch 17442/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9605  
Epoch 17443/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9594  
Epoch 17444/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9602  
Epoch 17445/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9595  
Epoch 17446/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9592  
Epoch 17447/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9600  
Epoch 17448/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9607  
Epoch 17449/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9597  
Epoch 17450/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0314 - accuracy:  
0.9599  
Epoch 17451/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0316 - accuracy:  
0.9594  
Epoch 17452/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0313 - accuracy:  
0.9598  
Epoch 17453/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0322 - accuracy:  
0.9602  
Epoch 17454/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0316 - accuracy:  
0.9604  
Epoch 17455/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9606  
Epoch 17456/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9591  
Epoch 17457/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9598  
Epoch 17458/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9594  
Epoch 17459/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9598  
Epoch 17460/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9600  
Epoch 17461/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9589  
Epoch 17462/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9597  
Epoch 17463/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9596  
Epoch 17464/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0315 - accuracy:  
0.9598  
Epoch 17465/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9596  
Epoch 17466/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9588  
Epoch 17467/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9593  
Epoch 17468/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9592  
Epoch 17469/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9589  
Epoch 17470/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9598  
Epoch 17471/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9590  
Epoch 17472/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9587  
Epoch 17473/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9593  
Epoch 17474/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0333 - accuracy:  
0.9598  
Epoch 17475/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0336 - accuracy:  
0.9589  
Epoch 17476/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9592  
Epoch 17477/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9599  
Epoch 17478/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9592  
Epoch 17479/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0323 - accuracy:  
0.9601  
Epoch 17480/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0314 - accuracy:  
0.9594  
Epoch 17481/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9594  
Epoch 17482/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9592  
Epoch 17483/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9593  
Epoch 17484/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9607  
Epoch 17485/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9586  
Epoch 17486/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0316 - accuracy:  
0.9597  
Epoch 17487/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9591  
Epoch 17488/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy: 0.9607  
Epoch 17489/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9605  
Epoch 17490/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9589  
Epoch 17491/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy: 0.9592  
Epoch 17492/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0310 - accuracy: 0.9588  
Epoch 17493/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy: 0.9597  
Epoch 17494/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy: 0.9602  
Epoch 17495/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy: 0.9592  
Epoch 17496/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy: 0.9592  
Epoch 17497/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy: 0.9596  
Epoch 17498/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy: 0.9593  
Epoch 17499/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0312 - accuracy: 0.9599  
Epoch 17500/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9600  
Epoch 17501/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy: 0.9600  
Epoch 17502/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy: 0.9594  
Epoch 17503/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy: 0.9588  
Epoch 17504/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9585  
Epoch 17505/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0312 - accuracy:  
0.9601  
Epoch 17506/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9595  
Epoch 17507/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0314 - accuracy:  
0.9593  
Epoch 17508/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9597  
Epoch 17509/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9604  
Epoch 17510/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9595  
Epoch 17511/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9600  
Epoch 17512/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy:  
0.9592  
Epoch 17513/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9595  
Epoch 17514/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9590  
Epoch 17515/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9585  
Epoch 17516/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9587  
Epoch 17517/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9594  
Epoch 17518/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9604  
Epoch 17519/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9589  
Epoch 17520/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0307 - accuracy: 0.9592  
Epoch 17521/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy: 0.9585  
Epoch 17522/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9609  
Epoch 17523/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0311 - accuracy: 0.9601  
Epoch 17524/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9598  
Epoch 17525/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy: 0.9599  
Epoch 17526/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0313 - accuracy: 0.9595  
Epoch 17527/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0308 - accuracy: 0.9598  
Epoch 17528/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy: 0.9592  
Epoch 17529/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy: 0.9587  
Epoch 17530/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9585  
Epoch 17531/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy: 0.9604  
Epoch 17532/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy: 0.9589  
Epoch 17533/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0334 - accuracy: 0.9589  
Epoch 17534/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0317 - accuracy: 0.9595  
Epoch 17535/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0316 - accuracy: 0.9590  
Epoch 17536/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy: 0.9603  
Epoch 17537/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy: 0.9593  
Epoch 17538/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9597  
Epoch 17539/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9600  
Epoch 17540/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy: 0.9600  
Epoch 17541/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy: 0.9595  
Epoch 17542/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy: 0.9588  
Epoch 17543/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9604  
Epoch 17544/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy: 0.9601  
Epoch 17545/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9606  
Epoch 17546/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0309 - accuracy: 0.9603  
Epoch 17547/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9589  
Epoch 17548/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9595  
Epoch 17549/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9603  
Epoch 17550/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy: 0.9595  
Epoch 17551/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0310 - accuracy: 0.9602  
Epoch 17552/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9605  
Epoch 17553/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9593  
Epoch 17554/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9593  
Epoch 17555/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9599  
Epoch 17556/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0314 - accuracy:  
0.9598  
Epoch 17557/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9590  
Epoch 17558/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9595  
Epoch 17559/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9591  
Epoch 17560/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9598  
Epoch 17561/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0310 - accuracy:  
0.9602  
Epoch 17562/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9596  
Epoch 17563/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9591  
Epoch 17564/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9594  
Epoch 17565/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9596  
Epoch 17566/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9607  
Epoch 17567/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9598  
Epoch 17568/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9597  
Epoch 17569/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0319 - accuracy:  
0.9599  
Epoch 17570/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9592  
Epoch 17571/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9599  
Epoch 17572/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0345 - accuracy:  
0.9600  
Epoch 17573/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0347 - accuracy:  
0.9597  
Epoch 17574/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0336 - accuracy:  
0.9600  
Epoch 17575/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9599  
Epoch 17576/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0328 - accuracy:  
0.9585  
Epoch 17577/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0346 - accuracy:  
0.9601  
Epoch 17578/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy:  
0.9595  
Epoch 17579/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9599  
Epoch 17580/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0326 - accuracy:  
0.9598  
Epoch 17581/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9595  
Epoch 17582/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9597  
Epoch 17583/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9598  
Epoch 17584/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9602  
Epoch 17585/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9604  
Epoch 17586/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9591  
Epoch 17587/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0320 - accuracy:  
0.9588  
Epoch 17588/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy:  
0.9600  
Epoch 17589/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9599  
Epoch 17590/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0326 - accuracy:  
0.9601  
Epoch 17591/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0311 - accuracy:  
0.9586  
Epoch 17592/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy:  
0.9597  
Epoch 17593/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0312 - accuracy:  
0.9593  
Epoch 17594/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0309 - accuracy:  
0.9591  
Epoch 17595/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0319 - accuracy:  
0.9600  
Epoch 17596/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9599  
Epoch 17597/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy:  
0.9597  
Epoch 17598/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9602  
Epoch 17599/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9588  
Epoch 17600/100000



2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy: 0.9595  
Epoch 17601/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9598  
Epoch 17602/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0321 - accuracy: 0.9589  
Epoch 17603/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy: 0.9592  
Epoch 17604/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy: 0.9590  
Epoch 17605/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy: 0.9597  
Epoch 17606/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy: 0.9598  
Epoch 17607/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy: 0.9594  
Epoch 17608/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy: 0.9595  
Epoch 17609/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy: 0.9597  
Epoch 17610/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy: 0.9597  
Epoch 17611/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0314 - accuracy: 0.9589  
Epoch 17612/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0317 - accuracy: 0.9610  
Epoch 17613/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy: 0.9593  
Epoch 17614/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0317 - accuracy: 0.9599  
Epoch 17615/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy: 0.9597  
Epoch 17616/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy:  
0.9596  
Epoch 17617/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9590  
Epoch 17618/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9606  
Epoch 17619/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0328 - accuracy:  
0.9600  
Epoch 17620/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9590  
Epoch 17621/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9593  
Epoch 17622/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9603  
Epoch 17623/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9598  
Epoch 17624/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9595  
Epoch 17625/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0324 - accuracy:  
0.9593  
Epoch 17626/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0320 - accuracy:  
0.9590  
Epoch 17627/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9594  
Epoch 17628/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9597  
Epoch 17629/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9590  
Epoch 17630/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0336 - accuracy:  
0.9594  
Epoch 17631/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0327 - accuracy:  
0.9592  
Epoch 17632/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9594  
Epoch 17633/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9589  
Epoch 17634/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9603  
Epoch 17635/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0313 - accuracy:  
0.9583  
Epoch 17636/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9597  
Epoch 17637/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0313 - accuracy:  
0.9590  
Epoch 17638/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9600  
Epoch 17639/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9600  
Epoch 17640/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0315 - accuracy:  
0.9607  
Epoch 17641/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9599  
Epoch 17642/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9586  
Epoch 17643/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9589  
Epoch 17644/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy:  
0.9589  
Epoch 17645/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0314 - accuracy:  
0.9608  
Epoch 17646/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9607  
Epoch 17647/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9604  
Epoch 17648/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9594  
Epoch 17649/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0313 - accuracy:  
0.9598  
Epoch 17650/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0308 - accuracy:  
0.9597  
Epoch 17651/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9602  
Epoch 17652/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9599  
Epoch 17653/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9595  
Epoch 17654/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0313 - accuracy:  
0.9596  
Epoch 17655/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9598  
Epoch 17656/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9597  
Epoch 17657/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9599  
Epoch 17658/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9600  
Epoch 17659/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0316 - accuracy:  
0.9594  
Epoch 17660/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0312 - accuracy:  
0.9600  
Epoch 17661/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0314 - accuracy:  
0.9594  
Epoch 17662/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9595  
Epoch 17663/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9604  
Epoch 17664/100000

2/2 [=====] - 0s 119ms/step - loss: 0.0313 - accuracy:  
0.9601  
Epoch 17665/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0316 - accuracy:  
0.9605  
Epoch 17666/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0317 - accuracy:  
0.9596  
Epoch 17667/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9597  
Epoch 17668/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0318 - accuracy:  
0.9597  
Epoch 17669/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0312 - accuracy:  
0.9592  
Epoch 17670/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9592  
Epoch 17671/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9601  
Epoch 17672/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0316 - accuracy:  
0.9599  
Epoch 17673/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9595  
Epoch 17674/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9597  
Epoch 17675/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9596  
Epoch 17676/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9602  
Epoch 17677/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0324 - accuracy:  
0.9594  
Epoch 17678/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0317 - accuracy:  
0.9591  
Epoch 17679/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9598  
Epoch 17680/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9596  
Epoch 17681/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0317 - accuracy:  
0.9593  
Epoch 17682/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9603  
Epoch 17683/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9590  
Epoch 17684/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy:  
0.9592  
Epoch 17685/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9596  
Epoch 17686/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9593  
Epoch 17687/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0324 - accuracy:  
0.9598  
Epoch 17688/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0324 - accuracy:  
0.9594  
Epoch 17689/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9598  
Epoch 17690/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy:  
0.9594  
Epoch 17691/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0320 - accuracy:  
0.9603  
Epoch 17692/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9601  
Epoch 17693/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9599  
Epoch 17694/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9594  
Epoch 17695/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9587  
Epoch 17696/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9593  
Epoch 17697/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0309 - accuracy:  
0.9599  
Epoch 17698/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0312 - accuracy:  
0.9603  
Epoch 17699/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0314 - accuracy:  
0.9591  
Epoch 17700/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9593  
Epoch 17701/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9596  
Epoch 17702/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9597  
Epoch 17703/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9596  
Epoch 17704/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0317 - accuracy:  
0.9600  
Epoch 17705/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0314 - accuracy:  
0.9599  
Epoch 17706/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9598  
Epoch 17707/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9597  
Epoch 17708/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy:  
0.9597  
Epoch 17709/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy:  
0.9591  
Epoch 17710/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0314 - accuracy:  
0.9599  
Epoch 17711/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0320 - accuracy:  
0.9593  
Epoch 17712/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9604  
Epoch 17713/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9599  
Epoch 17714/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9603  
Epoch 17715/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9598  
Epoch 17716/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0313 - accuracy:  
0.9600  
Epoch 17717/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9589  
Epoch 17718/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9587  
Epoch 17719/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9598  
Epoch 17720/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9599  
Epoch 17721/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9605  
Epoch 17722/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9592  
Epoch 17723/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9605  
Epoch 17724/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0315 - accuracy:  
0.9602  
Epoch 17725/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0309 - accuracy:  
0.9598  
Epoch 17726/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9600  
Epoch 17727/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0310 - accuracy:  
0.9589  
Epoch 17728/100000



2/2 [=====] - 0s 131ms/step - loss: 0.0310 - accuracy:  
0.9588  
Epoch 17729/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0314 - accuracy:  
0.9597  
Epoch 17730/100000  
2/2 [=====] - 0s 127ms/step - loss: 0.0312 - accuracy:  
0.9586  
Epoch 17731/100000  
2/2 [=====] - 0s 126ms/step - loss: 0.0318 - accuracy:  
0.9596  
Epoch 17732/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0309 - accuracy:  
0.9584  
Epoch 17733/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0313 - accuracy:  
0.9590  
Epoch 17734/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0337 - accuracy:  
0.9594  
Epoch 17735/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9593  
Epoch 17736/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0328 - accuracy:  
0.9597  
Epoch 17737/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9587  
Epoch 17738/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9599  
Epoch 17739/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9590  
Epoch 17740/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0322 - accuracy:  
0.9596  
Epoch 17741/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0322 - accuracy:  
0.9594  
Epoch 17742/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9601  
Epoch 17743/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9591  
Epoch 17744/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9608  
Epoch 17745/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9589  
Epoch 17746/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9589  
Epoch 17747/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9603  
Epoch 17748/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9594  
Epoch 17749/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy:  
0.9588  
Epoch 17750/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0318 - accuracy:  
0.9602  
Epoch 17751/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9605  
Epoch 17752/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9590  
Epoch 17753/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9608  
Epoch 17754/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9590  
Epoch 17755/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9596  
Epoch 17756/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9595  
Epoch 17757/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9602  
Epoch 17758/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9607  
Epoch 17759/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0312 - accuracy:  
0.9598  
Epoch 17760/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9599  
Epoch 17761/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9601  
Epoch 17762/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9605  
Epoch 17763/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy:  
0.9595  
Epoch 17764/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0314 - accuracy:  
0.9603  
Epoch 17765/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9591  
Epoch 17766/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9596  
Epoch 17767/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9593  
Epoch 17768/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9593  
Epoch 17769/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0324 - accuracy:  
0.9595  
Epoch 17770/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9610  
Epoch 17771/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9596  
Epoch 17772/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9602  
Epoch 17773/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9598  
Epoch 17774/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0317 - accuracy:  
0.9605  
Epoch 17775/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0314 - accuracy:  
0.9597  
Epoch 17776/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy:  
0.9592  
Epoch 17777/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9599  
Epoch 17778/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9597  
Epoch 17779/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0314 - accuracy:  
0.9581  
Epoch 17780/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0336 - accuracy:  
0.9603  
Epoch 17781/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9609  
Epoch 17782/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0321 - accuracy:  
0.9599  
Epoch 17783/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9601  
Epoch 17784/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9601  
Epoch 17785/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9599  
Epoch 17786/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9601  
Epoch 17787/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9603  
Epoch 17788/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9598  
Epoch 17789/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy:  
0.9590  
Epoch 17790/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9585  
Epoch 17791/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9597  
Epoch 17792/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9601  
Epoch 17793/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9586  
Epoch 17794/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9607  
Epoch 17795/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9595  
Epoch 17796/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9596  
Epoch 17797/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9594  
Epoch 17798/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0322 - accuracy:  
0.9595  
Epoch 17799/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0334 - accuracy:  
0.9595  
Epoch 17800/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9584  
Epoch 17801/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9606  
Epoch 17802/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9602  
Epoch 17803/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9593  
Epoch 17804/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9591  
Epoch 17805/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy:  
0.9590  
Epoch 17806/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9604  
Epoch 17807/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9600  
Epoch 17808/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0320 - accuracy: 0.9597  
Epoch 17809/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9594  
Epoch 17810/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy: 0.9592  
Epoch 17811/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy: 0.9598  
Epoch 17812/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy: 0.9593  
Epoch 17813/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9610  
Epoch 17814/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy: 0.9611  
Epoch 17815/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy: 0.9594  
Epoch 17816/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0308 - accuracy: 0.9598  
Epoch 17817/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9600  
Epoch 17818/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0311 - accuracy: 0.9594  
Epoch 17819/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0314 - accuracy: 0.9604  
Epoch 17820/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9587  
Epoch 17821/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0317 - accuracy: 0.9594  
Epoch 17822/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy: 0.9597  
Epoch 17823/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0310 - accuracy: 0.9591  
Epoch 17824/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy:  
0.9597  
Epoch 17825/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0316 - accuracy:  
0.9602  
Epoch 17826/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9600  
Epoch 17827/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9607  
Epoch 17828/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9597  
Epoch 17829/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9601  
Epoch 17830/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9598  
Epoch 17831/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9599  
Epoch 17832/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9598  
Epoch 17833/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9593  
Epoch 17834/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9600  
Epoch 17835/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0326 - accuracy:  
0.9586  
Epoch 17836/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9595  
Epoch 17837/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9593  
Epoch 17838/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9602  
Epoch 17839/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9590  
Epoch 17840/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9599  
Epoch 17841/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9591  
Epoch 17842/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9592  
Epoch 17843/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy:  
0.9592  
Epoch 17844/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9606  
Epoch 17845/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9590  
Epoch 17846/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9601  
Epoch 17847/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9596  
Epoch 17848/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9602  
Epoch 17849/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9596  
Epoch 17850/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9608  
Epoch 17851/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9596  
Epoch 17852/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9593  
Epoch 17853/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0313 - accuracy:  
0.9606  
Epoch 17854/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0313 - accuracy:  
0.9592  
Epoch 17855/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0329 - accuracy:  
0.9598  
Epoch 17856/100000



2/2 [=====] - 0s 117ms/step - loss: 0.0325 - accuracy:  
0.9600  
Epoch 17857/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0340 - accuracy:  
0.9598  
Epoch 17858/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0351 - accuracy:  
0.9596  
Epoch 17859/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9603  
Epoch 17860/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0332 - accuracy:  
0.9593  
Epoch 17861/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9603  
Epoch 17862/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9600  
Epoch 17863/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy:  
0.9593  
Epoch 17864/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0326 - accuracy:  
0.9600  
Epoch 17865/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9597  
Epoch 17866/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9595  
Epoch 17867/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9589  
Epoch 17868/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9601  
Epoch 17869/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9596  
Epoch 17870/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0314 - accuracy:  
0.9592  
Epoch 17871/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9601  
Epoch 17872/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9594  
Epoch 17873/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0313 - accuracy:  
0.9594  
Epoch 17874/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9593  
Epoch 17875/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9593  
Epoch 17876/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0320 - accuracy:  
0.9599  
Epoch 17877/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9598  
Epoch 17878/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9596  
Epoch 17879/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0314 - accuracy:  
0.9597  
Epoch 17880/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9595  
Epoch 17881/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9594  
Epoch 17882/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0312 - accuracy:  
0.9602  
Epoch 17883/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0317 - accuracy:  
0.9602  
Epoch 17884/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9597  
Epoch 17885/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9596  
Epoch 17886/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9593  
Epoch 17887/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0311 - accuracy:  
0.9596  
Epoch 17888/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0314 - accuracy:  
0.9601  
Epoch 17889/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9594  
Epoch 17890/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0309 - accuracy:  
0.9591  
Epoch 17891/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy:  
0.9596  
Epoch 17892/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0312 - accuracy:  
0.9593  
Epoch 17893/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9586  
Epoch 17894/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9591  
Epoch 17895/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0313 - accuracy:  
0.9597  
Epoch 17896/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9601  
Epoch 17897/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0320 - accuracy:  
0.9596  
Epoch 17898/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy:  
0.9595  
Epoch 17899/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0317 - accuracy:  
0.9597  
Epoch 17900/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9599  
Epoch 17901/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9600  
Epoch 17902/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9602  
Epoch 17903/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9603  
Epoch 17904/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy: 0.9594  
Epoch 17905/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy: 0.9602  
Epoch 17906/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9597  
Epoch 17907/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy: 0.9601  
Epoch 17908/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy: 0.9591  
Epoch 17909/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0320 - accuracy: 0.9598  
Epoch 17910/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy: 0.9605  
Epoch 17911/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy: 0.9595  
Epoch 17912/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy: 0.9592  
Epoch 17913/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy: 0.9596  
Epoch 17914/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9592  
Epoch 17915/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy: 0.9596  
Epoch 17916/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy: 0.9599  
Epoch 17917/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy: 0.9600  
Epoch 17918/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy: 0.9598  
Epoch 17919/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy: 0.9590  
Epoch 17920/100000

2/2 [=====] - 0s 122ms/step - loss: 0.0316 - accuracy:  
0.9591  
Epoch 17921/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9599  
Epoch 17922/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0314 - accuracy:  
0.9602  
Epoch 17923/100000  
2/2 [=====] - 0s 127ms/step - loss: 0.0311 - accuracy:  
0.9588  
Epoch 17924/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0311 - accuracy:  
0.9594  
Epoch 17925/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9587  
Epoch 17926/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9598  
Epoch 17927/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9597  
Epoch 17928/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy:  
0.9602  
Epoch 17929/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9598  
Epoch 17930/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9597  
Epoch 17931/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9592  
Epoch 17932/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9597  
Epoch 17933/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0309 - accuracy:  
0.9596  
Epoch 17934/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy:  
0.9594  
Epoch 17935/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9593  
Epoch 17936/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9589  
Epoch 17937/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0310 - accuracy: 0.9597  
Epoch 17938/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy: 0.9598  
Epoch 17939/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy: 0.9603  
Epoch 17940/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0309 - accuracy: 0.9596  
Epoch 17941/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy: 0.9593  
Epoch 17942/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy: 0.9603  
Epoch 17943/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0311 - accuracy: 0.9596  
Epoch 17944/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy: 0.9596  
Epoch 17945/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0313 - accuracy: 0.9594  
Epoch 17946/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0311 - accuracy: 0.9598  
Epoch 17947/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy: 0.9598  
Epoch 17948/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy: 0.9599  
Epoch 17949/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy: 0.9600  
Epoch 17950/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy: 0.9599  
Epoch 17951/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy: 0.9598  
Epoch 17952/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9604  
Epoch 17953/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9599  
Epoch 17954/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9598  
Epoch 17955/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9593  
Epoch 17956/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9599  
Epoch 17957/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9595  
Epoch 17958/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9601  
Epoch 17959/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9585  
Epoch 17960/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9590  
Epoch 17961/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0310 - accuracy:  
0.9598  
Epoch 17962/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy:  
0.9600  
Epoch 17963/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9597  
Epoch 17964/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy:  
0.9602  
Epoch 17965/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9590  
Epoch 17966/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9593  
Epoch 17967/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9602  
Epoch 17968/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9581  
Epoch 17969/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9604  
Epoch 17970/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0313 - accuracy:  
0.9590  
Epoch 17971/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0317 - accuracy:  
0.9602  
Epoch 17972/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9593  
Epoch 17973/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9597  
Epoch 17974/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9589  
Epoch 17975/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9597  
Epoch 17976/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0312 - accuracy:  
0.9601  
Epoch 17977/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9589  
Epoch 17978/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy:  
0.9605  
Epoch 17979/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9600  
Epoch 17980/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9596  
Epoch 17981/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9592  
Epoch 17982/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9591  
Epoch 17983/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0312 - accuracy:  
0.9600  
Epoch 17984/100000



2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9591  
Epoch 17985/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9590  
Epoch 17986/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0317 - accuracy:  
0.9598  
Epoch 17987/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9601  
Epoch 17988/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9599  
Epoch 17989/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9594  
Epoch 17990/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9600  
Epoch 17991/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0313 - accuracy:  
0.9601  
Epoch 17992/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9598  
Epoch 17993/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9599  
Epoch 17994/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0315 - accuracy:  
0.9602  
Epoch 17995/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0311 - accuracy:  
0.9595  
Epoch 17996/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9591  
Epoch 17997/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9593  
Epoch 17998/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9586  
Epoch 17999/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9593  
Epoch 18000/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9598  
Epoch 18001/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0314 - accuracy: 0.9591  
Epoch 18002/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0313 - accuracy: 0.9596  
Epoch 18003/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy: 0.9596  
Epoch 18004/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0311 - accuracy: 0.9590  
Epoch 18005/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0309 - accuracy: 0.9591  
Epoch 18006/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0307 - accuracy: 0.9593  
Epoch 18007/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy: 0.9592  
Epoch 18008/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9601  
Epoch 18009/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0313 - accuracy: 0.9603  
Epoch 18010/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0315 - accuracy: 0.9595  
Epoch 18011/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy: 0.9597  
Epoch 18012/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9597  
Epoch 18013/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy: 0.9596  
Epoch 18014/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9607  
Epoch 18015/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9596  
Epoch 18016/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9596  
Epoch 18017/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9594  
Epoch 18018/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9601  
Epoch 18019/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9599  
Epoch 18020/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0319 - accuracy:  
0.9599  
Epoch 18021/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0322 - accuracy:  
0.9603  
Epoch 18022/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0317 - accuracy:  
0.9600  
Epoch 18023/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9592  
Epoch 18024/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9602  
Epoch 18025/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9598  
Epoch 18026/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9599  
Epoch 18027/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9606  
Epoch 18028/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9612  
Epoch 18029/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9612  
Epoch 18030/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9603  
Epoch 18031/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9594  
Epoch 18032/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9602  
Epoch 18033/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0317 - accuracy:  
0.9594  
Epoch 18034/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9598  
Epoch 18035/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9592  
Epoch 18036/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9603  
Epoch 18037/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9602  
Epoch 18038/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9589  
Epoch 18039/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9596  
Epoch 18040/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9594  
Epoch 18041/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9603  
Epoch 18042/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0326 - accuracy:  
0.9592  
Epoch 18043/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9596  
Epoch 18044/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9594  
Epoch 18045/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9597  
Epoch 18046/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9597  
Epoch 18047/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9599  
Epoch 18048/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9605  
Epoch 18049/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy: 0.9596  
Epoch 18050/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0328 - accuracy: 0.9595  
Epoch 18051/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy: 0.9599  
Epoch 18052/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy: 0.9594  
Epoch 18053/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0326 - accuracy: 0.9590  
Epoch 18054/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy: 0.9591  
Epoch 18055/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy: 0.9594  
Epoch 18056/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0319 - accuracy: 0.9591  
Epoch 18057/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy: 0.9590  
Epoch 18058/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0313 - accuracy: 0.9598  
Epoch 18059/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy: 0.9589  
Epoch 18060/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy: 0.9592  
Epoch 18061/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9600  
Epoch 18062/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9593  
Epoch 18063/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy: 0.9603  
Epoch 18064/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9597  
Epoch 18065/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy: 0.9598  
Epoch 18066/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0316 - accuracy: 0.9602  
Epoch 18067/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0318 - accuracy: 0.9590  
Epoch 18068/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy: 0.9600  
Epoch 18069/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0333 - accuracy: 0.9599  
Epoch 18070/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0324 - accuracy: 0.9592  
Epoch 18071/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0323 - accuracy: 0.9596  
Epoch 18072/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy: 0.9598  
Epoch 18073/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy: 0.9598  
Epoch 18074/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0321 - accuracy: 0.9593  
Epoch 18075/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0317 - accuracy: 0.9604  
Epoch 18076/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy: 0.9592  
Epoch 18077/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0317 - accuracy: 0.9598  
Epoch 18078/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy: 0.9589  
Epoch 18079/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0312 - accuracy: 0.9592  
Epoch 18080/100000

2/2 [=====] - 0s 122ms/step - loss: 0.0309 - accuracy:  
0.9592  
Epoch 18081/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9592  
Epoch 18082/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9594  
Epoch 18083/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9597  
Epoch 18084/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9606  
Epoch 18085/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9591  
Epoch 18086/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9600  
Epoch 18087/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9596  
Epoch 18088/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy:  
0.9602  
Epoch 18089/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9585  
Epoch 18090/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0315 - accuracy:  
0.9597  
Epoch 18091/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9591  
Epoch 18092/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9591  
Epoch 18093/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0319 - accuracy:  
0.9610  
Epoch 18094/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0323 - accuracy:  
0.9588  
Epoch 18095/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9597  
Epoch 18096/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0320 - accuracy: 0.9586  
Epoch 18097/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy: 0.9605  
Epoch 18098/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0321 - accuracy: 0.9600  
Epoch 18099/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0315 - accuracy: 0.9596  
Epoch 18100/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0314 - accuracy: 0.9595  
Epoch 18101/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0316 - accuracy: 0.9601  
Epoch 18102/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy: 0.9589  
Epoch 18103/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy: 0.9608  
Epoch 18104/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy: 0.9595  
Epoch 18105/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy: 0.9593  
Epoch 18106/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9596  
Epoch 18107/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy: 0.9595  
Epoch 18108/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0319 - accuracy: 0.9596  
Epoch 18109/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy: 0.9597  
Epoch 18110/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9596  
Epoch 18111/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy: 0.9602  
Epoch 18112/100000



2/2 [=====] - 0s 114ms/step - loss: 0.0318 - accuracy:  
0.9595  
Epoch 18113/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0324 - accuracy:  
0.9589  
Epoch 18114/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9602  
Epoch 18115/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9585  
Epoch 18116/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0329 - accuracy:  
0.9590  
Epoch 18117/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9591  
Epoch 18118/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0319 - accuracy:  
0.9600  
Epoch 18119/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9597  
Epoch 18120/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0322 - accuracy:  
0.9600  
Epoch 18121/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9596  
Epoch 18122/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0313 - accuracy:  
0.9596  
Epoch 18123/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0314 - accuracy:  
0.9599  
Epoch 18124/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0309 - accuracy:  
0.9592  
Epoch 18125/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9595  
Epoch 18126/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0314 - accuracy:  
0.9602  
Epoch 18127/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9603  
Epoch 18128/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9595  
Epoch 18129/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0313 - accuracy:  
0.9590  
Epoch 18130/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9602  
Epoch 18131/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9602  
Epoch 18132/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9592  
Epoch 18133/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9589  
Epoch 18134/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0312 - accuracy:  
0.9586  
Epoch 18135/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9603  
Epoch 18136/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0321 - accuracy:  
0.9604  
Epoch 18137/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9596  
Epoch 18138/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9600  
Epoch 18139/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9604  
Epoch 18140/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9594  
Epoch 18141/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0312 - accuracy:  
0.9587  
Epoch 18142/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0310 - accuracy:  
0.9591  
Epoch 18143/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9600  
Epoch 18144/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0313 - accuracy: 0.9595  
Epoch 18145/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9597  
Epoch 18146/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy: 0.9597  
Epoch 18147/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy: 0.9609  
Epoch 18148/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0314 - accuracy: 0.9598  
Epoch 18149/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0312 - accuracy: 0.9601  
Epoch 18150/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy: 0.9605  
Epoch 18151/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy: 0.9604  
Epoch 18152/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy: 0.9593  
Epoch 18153/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy: 0.9592  
Epoch 18154/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9602  
Epoch 18155/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9594  
Epoch 18156/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9592  
Epoch 18157/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy: 0.9604  
Epoch 18158/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9600  
Epoch 18159/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9598  
Epoch 18160/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy: 0.9597  
Epoch 18161/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9594  
Epoch 18162/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9589  
Epoch 18163/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9598  
Epoch 18164/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0314 - accuracy: 0.9594  
Epoch 18165/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy: 0.9601  
Epoch 18166/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0315 - accuracy: 0.9596  
Epoch 18167/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9591  
Epoch 18168/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9599  
Epoch 18169/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0316 - accuracy: 0.9589  
Epoch 18170/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9606  
Epoch 18171/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9598  
Epoch 18172/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9599  
Epoch 18173/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy: 0.9588  
Epoch 18174/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9599  
Epoch 18175/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0322 - accuracy: 0.9595  
Epoch 18176/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0328 - accuracy: 0.9596  
Epoch 18177/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0318 - accuracy: 0.9598  
Epoch 18178/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy: 0.9595  
Epoch 18179/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy: 0.9595  
Epoch 18180/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy: 0.9585  
Epoch 18181/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0321 - accuracy: 0.9588  
Epoch 18182/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0326 - accuracy: 0.9601  
Epoch 18183/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0325 - accuracy: 0.9592  
Epoch 18184/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy: 0.9597  
Epoch 18185/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9594  
Epoch 18186/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy: 0.9592  
Epoch 18187/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy: 0.9585  
Epoch 18188/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy: 0.9600  
Epoch 18189/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy: 0.9591  
Epoch 18190/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy: 0.9612  
Epoch 18191/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy: 0.9607  
Epoch 18192/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9592  
Epoch 18193/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9589  
Epoch 18194/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9596  
Epoch 18195/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9601  
Epoch 18196/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9597  
Epoch 18197/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9593  
Epoch 18198/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0312 - accuracy:  
0.9589  
Epoch 18199/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9592  
Epoch 18200/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0316 - accuracy:  
0.9587  
Epoch 18201/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0317 - accuracy:  
0.9606  
Epoch 18202/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9601  
Epoch 18203/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9596  
Epoch 18204/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0314 - accuracy:  
0.9603  
Epoch 18205/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy:  
0.9601  
Epoch 18206/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9605  
Epoch 18207/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9586  
Epoch 18208/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9609  
Epoch 18209/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9591  
Epoch 18210/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9596  
Epoch 18211/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9597  
Epoch 18212/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0313 - accuracy:  
0.9598  
Epoch 18213/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9592  
Epoch 18214/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0322 - accuracy:  
0.9600  
Epoch 18215/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0324 - accuracy:  
0.9596  
Epoch 18216/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0333 - accuracy:  
0.9598  
Epoch 18217/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9597  
Epoch 18218/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy:  
0.9599  
Epoch 18219/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy:  
0.9595  
Epoch 18220/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0320 - accuracy:  
0.9594  
Epoch 18221/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy:  
0.9603  
Epoch 18222/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9584  
Epoch 18223/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9584  
Epoch 18224/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9602  
Epoch 18225/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9605  
Epoch 18226/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9591  
Epoch 18227/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9596  
Epoch 18228/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9592  
Epoch 18229/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9598  
Epoch 18230/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9584  
Epoch 18231/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9595  
Epoch 18232/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9604  
Epoch 18233/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9585  
Epoch 18234/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9590  
Epoch 18235/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9592  
Epoch 18236/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9602  
Epoch 18237/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0314 - accuracy:  
0.9591  
Epoch 18238/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0316 - accuracy:  
0.9594  
Epoch 18239/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0315 - accuracy:  
0.9592  
Epoch 18240/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9590  
Epoch 18241/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9600  
Epoch 18242/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9602  
Epoch 18243/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0338 - accuracy:  
0.9596  
Epoch 18244/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0338 - accuracy:  
0.9598  
Epoch 18245/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9606  
Epoch 18246/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy:  
0.9596  
Epoch 18247/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9598  
Epoch 18248/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9600  
Epoch 18249/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9598  
Epoch 18250/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9597  
Epoch 18251/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0307 - accuracy:  
0.9591  
Epoch 18252/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy:  
0.9601  
Epoch 18253/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9598  
Epoch 18254/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9588  
Epoch 18255/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9592  
Epoch 18256/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy: 0.9596  
Epoch 18257/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy: 0.9596  
Epoch 18258/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy: 0.9601  
Epoch 18259/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy: 0.9603  
Epoch 18260/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy: 0.9596  
Epoch 18261/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy: 0.9611  
Epoch 18262/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0315 - accuracy: 0.9589  
Epoch 18263/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0326 - accuracy: 0.9600  
Epoch 18264/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy: 0.9599  
Epoch 18265/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy: 0.9587  
Epoch 18266/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0338 - accuracy: 0.9594  
Epoch 18267/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0323 - accuracy: 0.9596  
Epoch 18268/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy: 0.9600  
Epoch 18269/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy: 0.9590  
Epoch 18270/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0314 - accuracy: 0.9598  
Epoch 18271/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy: 0.9601  
Epoch 18272/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9599  
Epoch 18273/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9602  
Epoch 18274/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9586  
Epoch 18275/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0312 - accuracy:  
0.9591  
Epoch 18276/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0313 - accuracy:  
0.9594  
Epoch 18277/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9604  
Epoch 18278/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9602  
Epoch 18279/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9586  
Epoch 18280/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9600  
Epoch 18281/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9604  
Epoch 18282/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0309 - accuracy:  
0.9592  
Epoch 18283/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9585  
Epoch 18284/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0317 - accuracy:  
0.9600  
Epoch 18285/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0312 - accuracy:  
0.9606  
Epoch 18286/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9600  
Epoch 18287/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0309 - accuracy:  
0.9593  
Epoch 18288/100000

2/2 [=====] - 0s 119ms/step - loss: 0.0310 - accuracy:  
0.9592  
Epoch 18289/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9602  
Epoch 18290/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9605  
Epoch 18291/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9587  
Epoch 18292/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9597  
Epoch 18293/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9604  
Epoch 18294/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy:  
0.9597  
Epoch 18295/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9599  
Epoch 18296/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0312 - accuracy:  
0.9600  
Epoch 18297/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9594  
Epoch 18298/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9597  
Epoch 18299/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9592  
Epoch 18300/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9589  
Epoch 18301/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9590  
Epoch 18302/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0309 - accuracy:  
0.9591  
Epoch 18303/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9595  
Epoch 18304/100000

2/2 [=====] - 0s 121ms/step - loss: 0.0317 - accuracy:  
0.9589  
Epoch 18305/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0319 - accuracy:  
0.9601  
Epoch 18306/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9603  
Epoch 18307/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0327 - accuracy:  
0.9593  
Epoch 18308/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0314 - accuracy:  
0.9598  
Epoch 18309/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9603  
Epoch 18310/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9595  
Epoch 18311/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9598  
Epoch 18312/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0314 - accuracy:  
0.9596  
Epoch 18313/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9595  
Epoch 18314/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0312 - accuracy:  
0.9590  
Epoch 18315/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0314 - accuracy:  
0.9593  
Epoch 18316/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9596  
Epoch 18317/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9594  
Epoch 18318/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9604  
Epoch 18319/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9603  
Epoch 18320/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9590  
Epoch 18321/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0318 - accuracy:  
0.9605  
Epoch 18322/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9590  
Epoch 18323/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9594  
Epoch 18324/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0316 - accuracy:  
0.9594  
Epoch 18325/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0322 - accuracy:  
0.9595  
Epoch 18326/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9592  
Epoch 18327/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9593  
Epoch 18328/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9600  
Epoch 18329/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9595  
Epoch 18330/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9591  
Epoch 18331/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9603  
Epoch 18332/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy:  
0.9598  
Epoch 18333/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy:  
0.9589  
Epoch 18334/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0306 - accuracy:  
0.9595  
Epoch 18335/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0303 - accuracy:  
0.9586  
Epoch 18336/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0309 - accuracy:  
0.9588  
Epoch 18337/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9585  
Epoch 18338/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9593  
Epoch 18339/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9602  
Epoch 18340/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9594  
Epoch 18341/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy:  
0.9593  
Epoch 18342/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9595  
Epoch 18343/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9590  
Epoch 18344/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9605  
Epoch 18345/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9596  
Epoch 18346/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0308 - accuracy:  
0.9589  
Epoch 18347/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9594  
Epoch 18348/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0314 - accuracy:  
0.9603  
Epoch 18349/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9601  
Epoch 18350/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9592  
Epoch 18351/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9591  
Epoch 18352/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9598  
Epoch 18353/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9599  
Epoch 18354/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9605  
Epoch 18355/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9593  
Epoch 18356/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0314 - accuracy:  
0.9598  
Epoch 18357/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9598  
Epoch 18358/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9594  
Epoch 18359/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy:  
0.9597  
Epoch 18360/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0317 - accuracy:  
0.9603  
Epoch 18361/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9606  
Epoch 18362/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0310 - accuracy:  
0.9599  
Epoch 18363/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9598  
Epoch 18364/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9592  
Epoch 18365/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9595  
Epoch 18366/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9596  
Epoch 18367/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9585  
Epoch 18368/100000



2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9594  
Epoch 18369/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9606  
Epoch 18370/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0329 - accuracy:  
0.9602  
Epoch 18371/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0317 - accuracy:  
0.9589  
Epoch 18372/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0315 - accuracy:  
0.9600  
Epoch 18373/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9586  
Epoch 18374/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9597  
Epoch 18375/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9597  
Epoch 18376/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0314 - accuracy:  
0.9602  
Epoch 18377/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9589  
Epoch 18378/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9590  
Epoch 18379/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9582  
Epoch 18380/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9605  
Epoch 18381/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9593  
Epoch 18382/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9596  
Epoch 18383/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0311 - accuracy:  
0.9590  
Epoch 18384/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9599  
Epoch 18385/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9600  
Epoch 18386/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9603  
Epoch 18387/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9593  
Epoch 18388/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9598  
Epoch 18389/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9592  
Epoch 18390/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9596  
Epoch 18391/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9604  
Epoch 18392/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0324 - accuracy:  
0.9596  
Epoch 18393/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9603  
Epoch 18394/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9601  
Epoch 18395/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9592  
Epoch 18396/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9601  
Epoch 18397/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0314 - accuracy:  
0.9607  
Epoch 18398/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9600  
Epoch 18399/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9604  
Epoch 18400/100000

2/2 [=====] - 0s 120ms/step - loss: 0.0311 - accuracy:  
0.9598  
Epoch 18401/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0314 - accuracy:  
0.9595  
Epoch 18402/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9601  
Epoch 18403/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9601  
Epoch 18404/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9594  
Epoch 18405/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0317 - accuracy:  
0.9591  
Epoch 18406/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy:  
0.9595  
Epoch 18407/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0307 - accuracy:  
0.9587  
Epoch 18408/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9594  
Epoch 18409/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0320 - accuracy:  
0.9597  
Epoch 18410/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9591  
Epoch 18411/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9591  
Epoch 18412/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0310 - accuracy:  
0.9594  
Epoch 18413/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0315 - accuracy:  
0.9596  
Epoch 18414/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9593  
Epoch 18415/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9596  
Epoch 18416/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9589  
Epoch 18417/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0310 - accuracy:  
0.9597  
Epoch 18418/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9602  
Epoch 18419/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy:  
0.9598  
Epoch 18420/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0309 - accuracy:  
0.9600  
Epoch 18421/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9594  
Epoch 18422/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9591  
Epoch 18423/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9597  
Epoch 18424/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9595  
Epoch 18425/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9594  
Epoch 18426/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9600  
Epoch 18427/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9602  
Epoch 18428/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9594  
Epoch 18429/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9594  
Epoch 18430/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9595  
Epoch 18431/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9589  
Epoch 18432/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9606  
Epoch 18433/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9592  
Epoch 18434/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9600  
Epoch 18435/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9594  
Epoch 18436/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9594  
Epoch 18437/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0309 - accuracy:  
0.9595  
Epoch 18438/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9598  
Epoch 18439/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9598  
Epoch 18440/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9604  
Epoch 18441/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9598  
Epoch 18442/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0312 - accuracy:  
0.9592  
Epoch 18443/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0311 - accuracy:  
0.9602  
Epoch 18444/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy:  
0.9599  
Epoch 18445/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0314 - accuracy:  
0.9598  
Epoch 18446/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9603  
Epoch 18447/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9596  
Epoch 18448/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9594  
Epoch 18449/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9600  
Epoch 18450/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9600  
Epoch 18451/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9592  
Epoch 18452/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9596  
Epoch 18453/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9601  
Epoch 18454/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9596  
Epoch 18455/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9595  
Epoch 18456/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9601  
Epoch 18457/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9608  
Epoch 18458/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9594  
Epoch 18459/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0319 - accuracy:  
0.9603  
Epoch 18460/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0312 - accuracy:  
0.9593  
Epoch 18461/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0312 - accuracy:  
0.9592  
Epoch 18462/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9598  
Epoch 18463/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9593  
Epoch 18464/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy: 0.9599  
Epoch 18465/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy: 0.9603  
Epoch 18466/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0315 - accuracy: 0.9598  
Epoch 18467/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy: 0.9589  
Epoch 18468/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy: 0.9607  
Epoch 18469/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0339 - accuracy: 0.9601  
Epoch 18470/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0335 - accuracy: 0.9586  
Epoch 18471/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy: 0.9599  
Epoch 18472/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0324 - accuracy: 0.9604  
Epoch 18473/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0319 - accuracy: 0.9605  
Epoch 18474/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy: 0.9601  
Epoch 18475/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy: 0.9604  
Epoch 18476/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0319 - accuracy: 0.9602  
Epoch 18477/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy: 0.9583  
Epoch 18478/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy: 0.9593  
Epoch 18479/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy: 0.9593  
Epoch 18480/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0319 - accuracy:  
0.9591  
Epoch 18481/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9600  
Epoch 18482/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0317 - accuracy:  
0.9591  
Epoch 18483/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9597  
Epoch 18484/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9596  
Epoch 18485/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9597  
Epoch 18486/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy:  
0.9601  
Epoch 18487/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy:  
0.9600  
Epoch 18488/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9597  
Epoch 18489/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9603  
Epoch 18490/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy:  
0.9607  
Epoch 18491/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9604  
Epoch 18492/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9596  
Epoch 18493/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0310 - accuracy:  
0.9593  
Epoch 18494/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9593  
Epoch 18495/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy:  
0.9595  
Epoch 18496/100000



2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy:  
0.9597  
Epoch 18497/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9591  
Epoch 18498/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9589  
Epoch 18499/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9590  
Epoch 18500/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9602  
Epoch 18501/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0315 - accuracy:  
0.9601  
Epoch 18502/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9611  
Epoch 18503/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9591  
Epoch 18504/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9593  
Epoch 18505/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0310 - accuracy:  
0.9604  
Epoch 18506/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0314 - accuracy:  
0.9596  
Epoch 18507/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9611  
Epoch 18508/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0313 - accuracy:  
0.9589  
Epoch 18509/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9604  
Epoch 18510/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9597  
Epoch 18511/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0310 - accuracy:  
0.9596  
Epoch 18512/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9591  
Epoch 18513/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9598  
Epoch 18514/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9599  
Epoch 18515/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9599  
Epoch 18516/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9597  
Epoch 18517/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9598  
Epoch 18518/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9597  
Epoch 18519/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9591  
Epoch 18520/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0307 - accuracy:  
0.9598  
Epoch 18521/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9609  
Epoch 18522/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9589  
Epoch 18523/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9600  
Epoch 18524/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy:  
0.9601  
Epoch 18525/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9595  
Epoch 18526/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9608  
Epoch 18527/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9594  
Epoch 18528/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9591  
Epoch 18529/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9603  
Epoch 18530/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0315 - accuracy:  
0.9598  
Epoch 18531/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9592  
Epoch 18532/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9584  
Epoch 18533/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0313 - accuracy:  
0.9591  
Epoch 18534/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9595  
Epoch 18535/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9602  
Epoch 18536/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9605  
Epoch 18537/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9583  
Epoch 18538/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9592  
Epoch 18539/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9599  
Epoch 18540/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9587  
Epoch 18541/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9599  
Epoch 18542/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0308 - accuracy:  
0.9591  
Epoch 18543/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9593  
Epoch 18544/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy:  
0.9596  
Epoch 18545/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0316 - accuracy:  
0.9596  
Epoch 18546/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0317 - accuracy:  
0.9602  
Epoch 18547/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9591  
Epoch 18548/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0316 - accuracy:  
0.9597  
Epoch 18549/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9596  
Epoch 18550/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9601  
Epoch 18551/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9594  
Epoch 18552/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9591  
Epoch 18553/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9599  
Epoch 18554/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9595  
Epoch 18555/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9591  
Epoch 18556/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9603  
Epoch 18557/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9593  
Epoch 18558/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9588  
Epoch 18559/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9588  
Epoch 18560/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9605  
Epoch 18561/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0314 - accuracy:  
0.9603  
Epoch 18562/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9601  
Epoch 18563/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9605  
Epoch 18564/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9599  
Epoch 18565/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9597  
Epoch 18566/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9599  
Epoch 18567/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy:  
0.9603  
Epoch 18568/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0309 - accuracy:  
0.9593  
Epoch 18569/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9597  
Epoch 18570/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9596  
Epoch 18571/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9602  
Epoch 18572/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9590  
Epoch 18573/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0315 - accuracy:  
0.9597  
Epoch 18574/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0318 - accuracy:  
0.9601  
Epoch 18575/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0313 - accuracy:  
0.9604  
Epoch 18576/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9592  
Epoch 18577/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9599  
Epoch 18578/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy:  
0.9597  
Epoch 18579/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy:  
0.9596  
Epoch 18580/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9600  
Epoch 18581/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0312 - accuracy:  
0.9586  
Epoch 18582/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9592  
Epoch 18583/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9598  
Epoch 18584/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0312 - accuracy:  
0.9592  
Epoch 18585/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9592  
Epoch 18586/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0325 - accuracy:  
0.9587  
Epoch 18587/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0312 - accuracy:  
0.9594  
Epoch 18588/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9604  
Epoch 18589/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9598  
Epoch 18590/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0316 - accuracy:  
0.9599  
Epoch 18591/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9590  
Epoch 18592/100000

2/2 [=====] - 0s 119ms/step - loss: 0.0313 - accuracy:  
0.9583  
Epoch 18593/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0313 - accuracy:  
0.9601  
Epoch 18594/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9598  
Epoch 18595/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9588  
Epoch 18596/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9602  
Epoch 18597/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9599  
Epoch 18598/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9598  
Epoch 18599/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0313 - accuracy:  
0.9610  
Epoch 18600/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9603  
Epoch 18601/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9602  
Epoch 18602/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9596  
Epoch 18603/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9597  
Epoch 18604/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9597  
Epoch 18605/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9594  
Epoch 18606/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy:  
0.9597  
Epoch 18607/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy:  
0.9598  
Epoch 18608/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9601  
Epoch 18609/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9605  
Epoch 18610/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9593  
Epoch 18611/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9603  
Epoch 18612/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy:  
0.9608  
Epoch 18613/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9599  
Epoch 18614/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy:  
0.9596  
Epoch 18615/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9589  
Epoch 18616/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9600  
Epoch 18617/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0310 - accuracy:  
0.9605  
Epoch 18618/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9589  
Epoch 18619/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9589  
Epoch 18620/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0309 - accuracy:  
0.9602  
Epoch 18621/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0312 - accuracy:  
0.9598  
Epoch 18622/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0313 - accuracy:  
0.9602  
Epoch 18623/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0308 - accuracy:  
0.9589  
Epoch 18624/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9605  
Epoch 18625/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9596  
Epoch 18626/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9598  
Epoch 18627/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9594  
Epoch 18628/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9602  
Epoch 18629/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9593  
Epoch 18630/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0325 - accuracy:  
0.9592  
Epoch 18631/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9591  
Epoch 18632/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9594  
Epoch 18633/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0340 - accuracy:  
0.9592  
Epoch 18634/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0317 - accuracy:  
0.9591  
Epoch 18635/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0320 - accuracy:  
0.9591  
Epoch 18636/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9592  
Epoch 18637/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9589  
Epoch 18638/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9599  
Epoch 18639/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0327 - accuracy:  
0.9600  
Epoch 18640/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9592  
Epoch 18641/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0320 - accuracy:  
0.9597  
Epoch 18642/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy:  
0.9592  
Epoch 18643/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0321 - accuracy:  
0.9587  
Epoch 18644/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0326 - accuracy:  
0.9604  
Epoch 18645/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0314 - accuracy:  
0.9591  
Epoch 18646/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9593  
Epoch 18647/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9601  
Epoch 18648/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9600  
Epoch 18649/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9595  
Epoch 18650/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9601  
Epoch 18651/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0316 - accuracy:  
0.9595  
Epoch 18652/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9597  
Epoch 18653/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9588  
Epoch 18654/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0313 - accuracy:  
0.9601  
Epoch 18655/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0317 - accuracy:  
0.9592  
Epoch 18656/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9593  
Epoch 18657/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9597  
Epoch 18658/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9604  
Epoch 18659/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9597  
Epoch 18660/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9596  
Epoch 18661/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0318 - accuracy:  
0.9591  
Epoch 18662/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9597  
Epoch 18663/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy:  
0.9593  
Epoch 18664/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9595  
Epoch 18665/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0310 - accuracy:  
0.9590  
Epoch 18666/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0307 - accuracy:  
0.9588  
Epoch 18667/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9593  
Epoch 18668/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy:  
0.9599  
Epoch 18669/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9600  
Epoch 18670/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9597  
Epoch 18671/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9602  
Epoch 18672/100000

2/2 [=====] - 0s 121ms/step - loss: 0.0307 - accuracy:  
0.9595  
Epoch 18673/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9588  
Epoch 18674/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9596  
Epoch 18675/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9583  
Epoch 18676/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy:  
0.9594  
Epoch 18677/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9594  
Epoch 18678/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9599  
Epoch 18679/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9593  
Epoch 18680/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9591  
Epoch 18681/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9591  
Epoch 18682/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9601  
Epoch 18683/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0313 - accuracy:  
0.9608  
Epoch 18684/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9594  
Epoch 18685/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9596  
Epoch 18686/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9592  
Epoch 18687/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9605  
Epoch 18688/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy: 0.9599  
Epoch 18689/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9597  
Epoch 18690/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy: 0.9600  
Epoch 18691/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy: 0.9591  
Epoch 18692/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0309 - accuracy: 0.9599  
Epoch 18693/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0313 - accuracy: 0.9602  
Epoch 18694/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9596  
Epoch 18695/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9598  
Epoch 18696/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9584  
Epoch 18697/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy: 0.9605  
Epoch 18698/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0313 - accuracy: 0.9597  
Epoch 18699/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9595  
Epoch 18700/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy: 0.9600  
Epoch 18701/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9584  
Epoch 18702/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy: 0.9596  
Epoch 18703/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy: 0.9589  
Epoch 18704/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9594  
Epoch 18705/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9600  
Epoch 18706/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9603  
Epoch 18707/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9598  
Epoch 18708/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9602  
Epoch 18709/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9589  
Epoch 18710/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9597  
Epoch 18711/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9601  
Epoch 18712/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9596  
Epoch 18713/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9591  
Epoch 18714/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0319 - accuracy:  
0.9611  
Epoch 18715/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9596  
Epoch 18716/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy:  
0.9601  
Epoch 18717/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9592  
Epoch 18718/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9584  
Epoch 18719/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0324 - accuracy:  
0.9601  
Epoch 18720/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9598  
Epoch 18721/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9593  
Epoch 18722/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9595  
Epoch 18723/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0315 - accuracy:  
0.9601  
Epoch 18724/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9600  
Epoch 18725/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0313 - accuracy:  
0.9594  
Epoch 18726/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0311 - accuracy:  
0.9600  
Epoch 18727/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9595  
Epoch 18728/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9600  
Epoch 18729/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9598  
Epoch 18730/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0310 - accuracy:  
0.9604  
Epoch 18731/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0311 - accuracy:  
0.9609  
Epoch 18732/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9592  
Epoch 18733/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9595  
Epoch 18734/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9608  
Epoch 18735/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9600  
Epoch 18736/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9593  
Epoch 18737/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy:  
0.9591  
Epoch 18738/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9596  
Epoch 18739/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9597  
Epoch 18740/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9587  
Epoch 18741/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0313 - accuracy:  
0.9606  
Epoch 18742/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0309 - accuracy:  
0.9590  
Epoch 18743/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9594  
Epoch 18744/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9597  
Epoch 18745/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0310 - accuracy:  
0.9599  
Epoch 18746/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9594  
Epoch 18747/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9594  
Epoch 18748/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9590  
Epoch 18749/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0308 - accuracy:  
0.9597  
Epoch 18750/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9603  
Epoch 18751/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9595  
Epoch 18752/100000



2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9604  
Epoch 18753/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9590  
Epoch 18754/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0311 - accuracy:  
0.9600  
Epoch 18755/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9592  
Epoch 18756/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9596  
Epoch 18757/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0313 - accuracy:  
0.9591  
Epoch 18758/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9599  
Epoch 18759/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9592  
Epoch 18760/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9601  
Epoch 18761/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9581  
Epoch 18762/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9604  
Epoch 18763/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9598  
Epoch 18764/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0343 - accuracy:  
0.9592  
Epoch 18765/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0329 - accuracy:  
0.9596  
Epoch 18766/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0328 - accuracy:  
0.9599  
Epoch 18767/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0323 - accuracy:  
0.9588  
Epoch 18768/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0333 - accuracy: 0.9599  
Epoch 18769/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy: 0.9597  
Epoch 18770/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy: 0.9596  
Epoch 18771/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0325 - accuracy: 0.9600  
Epoch 18772/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0324 - accuracy: 0.9595  
Epoch 18773/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0323 - accuracy: 0.9594  
Epoch 18774/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy: 0.9599  
Epoch 18775/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy: 0.9615  
Epoch 18776/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0310 - accuracy: 0.9587  
Epoch 18777/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9589  
Epoch 18778/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0316 - accuracy: 0.9589  
Epoch 18779/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0312 - accuracy: 0.9591  
Epoch 18780/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy: 0.9595  
Epoch 18781/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9597  
Epoch 18782/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0314 - accuracy: 0.9603  
Epoch 18783/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9591  
Epoch 18784/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy: 0.9599  
Epoch 18785/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy: 0.9591  
Epoch 18786/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0311 - accuracy: 0.9599  
Epoch 18787/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0310 - accuracy: 0.9588  
Epoch 18788/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0314 - accuracy: 0.9604  
Epoch 18789/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0312 - accuracy: 0.9603  
Epoch 18790/100000  
2/2 [=====] - 0s 127ms/step - loss: 0.0323 - accuracy: 0.9596  
Epoch 18791/100000  
2/2 [=====] - 0s 133ms/step - loss: 0.0319 - accuracy: 0.9602  
Epoch 18792/100000  
2/2 [=====] - 0s 128ms/step - loss: 0.0319 - accuracy: 0.9602  
Epoch 18793/100000  
2/2 [=====] - 0s 127ms/step - loss: 0.0323 - accuracy: 0.9590  
Epoch 18794/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0359 - accuracy: 0.9593  
Epoch 18795/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0345 - accuracy: 0.9595  
Epoch 18796/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0334 - accuracy: 0.9598  
Epoch 18797/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy: 0.9596  
Epoch 18798/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0346 - accuracy: 0.9597  
Epoch 18799/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0343 - accuracy: 0.9596  
Epoch 18800/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9598  
Epoch 18801/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0332 - accuracy:  
0.9600  
Epoch 18802/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0329 - accuracy:  
0.9606  
Epoch 18803/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0320 - accuracy:  
0.9594  
Epoch 18804/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9596  
Epoch 18805/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0324 - accuracy:  
0.9595  
Epoch 18806/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9607  
Epoch 18807/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9597  
Epoch 18808/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9595  
Epoch 18809/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9598  
Epoch 18810/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9602  
Epoch 18811/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9589  
Epoch 18812/100000  
2/2 [=====] - 0s 140ms/step - loss: 0.0307 - accuracy:  
0.9585  
Epoch 18813/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0316 - accuracy:  
0.9607  
Epoch 18814/100000  
2/2 [=====] - 0s 127ms/step - loss: 0.0308 - accuracy:  
0.9597  
Epoch 18815/100000  
2/2 [=====] - 0s 127ms/step - loss: 0.0309 - accuracy:  
0.9598  
Epoch 18816/100000

2/2 [=====] - 0s 125ms/step - loss: 0.0308 - accuracy:  
0.9594  
Epoch 18817/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0314 - accuracy:  
0.9605  
Epoch 18818/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0310 - accuracy:  
0.9599  
Epoch 18819/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9603  
Epoch 18820/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9591  
Epoch 18821/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0309 - accuracy:  
0.9595  
Epoch 18822/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9593  
Epoch 18823/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy:  
0.9593  
Epoch 18824/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0312 - accuracy:  
0.9592  
Epoch 18825/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9594  
Epoch 18826/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9599  
Epoch 18827/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9602  
Epoch 18828/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9597  
Epoch 18829/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9605  
Epoch 18830/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0313 - accuracy:  
0.9601  
Epoch 18831/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0311 - accuracy:  
0.9600  
Epoch 18832/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0310 - accuracy:  
0.9595  
Epoch 18833/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0313 - accuracy:  
0.9600  
Epoch 18834/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9590  
Epoch 18835/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9587  
Epoch 18836/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0309 - accuracy:  
0.9596  
Epoch 18837/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0305 - accuracy:  
0.9602  
Epoch 18838/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0311 - accuracy:  
0.9599  
Epoch 18839/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0320 - accuracy:  
0.9600  
Epoch 18840/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy:  
0.9603  
Epoch 18841/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0318 - accuracy:  
0.9596  
Epoch 18842/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9601  
Epoch 18843/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0317 - accuracy:  
0.9602  
Epoch 18844/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9600  
Epoch 18845/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0319 - accuracy:  
0.9604  
Epoch 18846/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9600  
Epoch 18847/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9605  
Epoch 18848/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0327 - accuracy:  
0.9599  
Epoch 18849/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0321 - accuracy:  
0.9596  
Epoch 18850/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0325 - accuracy:  
0.9602  
Epoch 18851/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0325 - accuracy:  
0.9608  
Epoch 18852/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9603  
Epoch 18853/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9594  
Epoch 18854/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9603  
Epoch 18855/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9589  
Epoch 18856/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0311 - accuracy:  
0.9592  
Epoch 18857/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9593  
Epoch 18858/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9592  
Epoch 18859/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9591  
Epoch 18860/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9599  
Epoch 18861/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9587  
Epoch 18862/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0313 - accuracy:  
0.9604  
Epoch 18863/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy:  
0.9597  
Epoch 18864/100000

2/2 [=====] - 0s 119ms/step - loss: 0.0309 - accuracy:  
0.9594  
Epoch 18865/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9597  
Epoch 18866/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9600  
Epoch 18867/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9598  
Epoch 18868/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9603  
Epoch 18869/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9596  
Epoch 18870/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy:  
0.9590  
Epoch 18871/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0312 - accuracy:  
0.9602  
Epoch 18872/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9594  
Epoch 18873/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0314 - accuracy:  
0.9599  
Epoch 18874/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy:  
0.9599  
Epoch 18875/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9601  
Epoch 18876/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0311 - accuracy:  
0.9585  
Epoch 18877/100000  
2/2 [=====] - 0s 126ms/step - loss: 0.0312 - accuracy:  
0.9604  
Epoch 18878/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9605  
Epoch 18879/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy:  
0.9595  
Epoch 18880/100000



2/2 [=====] - 0s 114ms/step - loss: 0.0313 - accuracy: 0.9607  
Epoch 18881/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy: 0.9594  
Epoch 18882/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy: 0.9596  
Epoch 18883/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0312 - accuracy: 0.9597  
Epoch 18884/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9595  
Epoch 18885/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy: 0.9595  
Epoch 18886/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0311 - accuracy: 0.9595  
Epoch 18887/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0311 - accuracy: 0.9598  
Epoch 18888/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy: 0.9605  
Epoch 18889/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy: 0.9594  
Epoch 18890/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy: 0.9596  
Epoch 18891/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy: 0.9601  
Epoch 18892/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9584  
Epoch 18893/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy: 0.9590  
Epoch 18894/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0316 - accuracy: 0.9596  
Epoch 18895/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy: 0.9594  
Epoch 18896/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0314 - accuracy:  
0.9593  
Epoch 18897/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9598  
Epoch 18898/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0311 - accuracy:  
0.9603  
Epoch 18899/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy:  
0.9605  
Epoch 18900/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9592  
Epoch 18901/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9605  
Epoch 18902/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9601  
Epoch 18903/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy:  
0.9599  
Epoch 18904/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9596  
Epoch 18905/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9600  
Epoch 18906/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0314 - accuracy:  
0.9595  
Epoch 18907/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0316 - accuracy:  
0.9591  
Epoch 18908/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0315 - accuracy:  
0.9596  
Epoch 18909/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9589  
Epoch 18910/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0314 - accuracy:  
0.9593  
Epoch 18911/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9591  
Epoch 18912/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9599  
Epoch 18913/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9601  
Epoch 18914/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9601  
Epoch 18915/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9601  
Epoch 18916/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9600  
Epoch 18917/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0306 - accuracy:  
0.9597  
Epoch 18918/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9591  
Epoch 18919/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9600  
Epoch 18920/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9602  
Epoch 18921/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9600  
Epoch 18922/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9592  
Epoch 18923/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9597  
Epoch 18924/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9608  
Epoch 18925/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0314 - accuracy:  
0.9597  
Epoch 18926/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9586  
Epoch 18927/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9593  
Epoch 18928/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9600  
Epoch 18929/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9592  
Epoch 18930/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9597  
Epoch 18931/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9599  
Epoch 18932/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9596  
Epoch 18933/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9594  
Epoch 18934/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9605  
Epoch 18935/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0323 - accuracy:  
0.9604  
Epoch 18936/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0329 - accuracy:  
0.9587  
Epoch 18937/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0323 - accuracy:  
0.9598  
Epoch 18938/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9595  
Epoch 18939/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0319 - accuracy:  
0.9597  
Epoch 18940/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0312 - accuracy:  
0.9595  
Epoch 18941/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy:  
0.9586  
Epoch 18942/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9606  
Epoch 18943/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0313 - accuracy:  
0.9591  
Epoch 18944/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9600  
Epoch 18945/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9586  
Epoch 18946/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9595  
Epoch 18947/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0312 - accuracy:  
0.9598  
Epoch 18948/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9597  
Epoch 18949/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9592  
Epoch 18950/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9597  
Epoch 18951/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0312 - accuracy:  
0.9597  
Epoch 18952/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9606  
Epoch 18953/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9594  
Epoch 18954/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0319 - accuracy:  
0.9602  
Epoch 18955/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0312 - accuracy:  
0.9583  
Epoch 18956/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0312 - accuracy:  
0.9598  
Epoch 18957/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0310 - accuracy:  
0.9589  
Epoch 18958/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9591  
Epoch 18959/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9589  
Epoch 18960/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy: 0.9595  
Epoch 18961/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0314 - accuracy: 0.9601  
Epoch 18962/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9593  
Epoch 18963/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9599  
Epoch 18964/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy: 0.9604  
Epoch 18965/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy: 0.9601  
Epoch 18966/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy: 0.9605  
Epoch 18967/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0309 - accuracy: 0.9594  
Epoch 18968/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0309 - accuracy: 0.9584  
Epoch 18969/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9602  
Epoch 18970/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy: 0.9598  
Epoch 18971/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy: 0.9598  
Epoch 18972/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9602  
Epoch 18973/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9595  
Epoch 18974/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0309 - accuracy: 0.9589  
Epoch 18975/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9609  
Epoch 18976/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9592  
Epoch 18977/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9596  
Epoch 18978/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9603  
Epoch 18979/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9603  
Epoch 18980/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9599  
Epoch 18981/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9601  
Epoch 18982/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9608  
Epoch 18983/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy:  
0.9599  
Epoch 18984/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0314 - accuracy:  
0.9587  
Epoch 18985/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0309 - accuracy:  
0.9596  
Epoch 18986/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy:  
0.9600  
Epoch 18987/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0307 - accuracy:  
0.9594  
Epoch 18988/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9593  
Epoch 18989/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9589  
Epoch 18990/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9592  
Epoch 18991/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0316 - accuracy:  
0.9596  
Epoch 18992/100000

2/2 [=====] - 0s 122ms/step - loss: 0.0321 - accuracy:  
0.9601  
Epoch 18993/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0323 - accuracy:  
0.9587  
Epoch 18994/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0323 - accuracy:  
0.9586  
Epoch 18995/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0319 - accuracy:  
0.9597  
Epoch 18996/100000  
2/2 [=====] - 0s 126ms/step - loss: 0.0327 - accuracy:  
0.9601  
Epoch 18997/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0326 - accuracy:  
0.9595  
Epoch 18998/100000  
2/2 [=====] - 0s 127ms/step - loss: 0.0317 - accuracy:  
0.9597  
Epoch 18999/100000  
2/2 [=====] - 0s 131ms/step - loss: 0.0313 - accuracy:  
0.9587  
Epoch 19000/100000  
2/2 [=====] - 0s 126ms/step - loss: 0.0320 - accuracy:  
0.9600  
Epoch 19001/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9599  
Epoch 19002/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9600  
Epoch 19003/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9605  
Epoch 19004/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy:  
0.9603  
Epoch 19005/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9598  
Epoch 19006/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy:  
0.9595  
Epoch 19007/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy:  
0.9608  
Epoch 19008/100000



2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9593  
Epoch 19009/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy:  
0.9601  
Epoch 19010/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0319 - accuracy:  
0.9592  
Epoch 19011/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0306 - accuracy:  
0.9587  
Epoch 19012/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9601  
Epoch 19013/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9598  
Epoch 19014/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy:  
0.9607  
Epoch 19015/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9600  
Epoch 19016/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9596  
Epoch 19017/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9602  
Epoch 19018/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy:  
0.9590  
Epoch 19019/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9607  
Epoch 19020/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9599  
Epoch 19021/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9589  
Epoch 19022/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9593  
Epoch 19023/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9595  
Epoch 19024/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9598  
Epoch 19025/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy: 0.9587  
Epoch 19026/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9590  
Epoch 19027/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9596  
Epoch 19028/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9595  
Epoch 19029/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0316 - accuracy: 0.9596  
Epoch 19030/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy: 0.9591  
Epoch 19031/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9603  
Epoch 19032/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9595  
Epoch 19033/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy: 0.9600  
Epoch 19034/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0307 - accuracy: 0.9595  
Epoch 19035/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9595  
Epoch 19036/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy: 0.9593  
Epoch 19037/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9597  
Epoch 19038/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy: 0.9594  
Epoch 19039/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy: 0.9590  
Epoch 19040/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9592  
Epoch 19041/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0315 - accuracy:  
0.9602  
Epoch 19042/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9595  
Epoch 19043/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9600  
Epoch 19044/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0314 - accuracy:  
0.9593  
Epoch 19045/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9598  
Epoch 19046/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9594  
Epoch 19047/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0312 - accuracy:  
0.9593  
Epoch 19048/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0315 - accuracy:  
0.9593  
Epoch 19049/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9596  
Epoch 19050/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0312 - accuracy:  
0.9600  
Epoch 19051/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0314 - accuracy:  
0.9588  
Epoch 19052/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0310 - accuracy:  
0.9601  
Epoch 19053/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0315 - accuracy:  
0.9595  
Epoch 19054/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9599  
Epoch 19055/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0314 - accuracy:  
0.9596  
Epoch 19056/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0314 - accuracy:  
0.9590  
Epoch 19057/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9598  
Epoch 19058/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy:  
0.9595  
Epoch 19059/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy:  
0.9595  
Epoch 19060/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0309 - accuracy:  
0.9594  
Epoch 19061/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9604  
Epoch 19062/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0310 - accuracy:  
0.9589  
Epoch 19063/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0312 - accuracy:  
0.9594  
Epoch 19064/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9598  
Epoch 19065/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0314 - accuracy:  
0.9593  
Epoch 19066/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0312 - accuracy:  
0.9597  
Epoch 19067/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9602  
Epoch 19068/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0308 - accuracy:  
0.9592  
Epoch 19069/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0312 - accuracy:  
0.9596  
Epoch 19070/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0314 - accuracy:  
0.9593  
Epoch 19071/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9599  
Epoch 19072/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0312 - accuracy: 0.9595  
Epoch 19073/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy: 0.9599  
Epoch 19074/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy: 0.9591  
Epoch 19075/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9598  
Epoch 19076/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9595  
Epoch 19077/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0306 - accuracy: 0.9591  
Epoch 19078/100000  
2/2 [=====] - 0s 127ms/step - loss: 0.0312 - accuracy: 0.9596  
Epoch 19079/100000  
2/2 [=====] - 0s 128ms/step - loss: 0.0314 - accuracy: 0.9600  
Epoch 19080/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0320 - accuracy: 0.9587  
Epoch 19081/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0331 - accuracy: 0.9594  
Epoch 19082/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0335 - accuracy: 0.9613  
Epoch 19083/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0357 - accuracy: 0.9585  
Epoch 19084/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0444 - accuracy: 0.9591  
Epoch 19085/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0381 - accuracy: 0.9590  
Epoch 19086/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0373 - accuracy: 0.9586  
Epoch 19087/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0354 - accuracy: 0.9593  
Epoch 19088/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0361 - accuracy: 0.9599  
Epoch 19089/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0359 - accuracy: 0.9600  
Epoch 19090/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0337 - accuracy: 0.9593  
Epoch 19091/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy: 0.9608  
Epoch 19092/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0326 - accuracy: 0.9596  
Epoch 19093/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0328 - accuracy: 0.9585  
Epoch 19094/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy: 0.9604  
Epoch 19095/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy: 0.9597  
Epoch 19096/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0317 - accuracy: 0.9599  
Epoch 19097/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0321 - accuracy: 0.9586  
Epoch 19098/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0317 - accuracy: 0.9586  
Epoch 19099/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0320 - accuracy: 0.9597  
Epoch 19100/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0318 - accuracy: 0.9597  
Epoch 19101/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy: 0.9598  
Epoch 19102/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy: 0.9593  
Epoch 19103/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy: 0.9599  
Epoch 19104/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0314 - accuracy:  
0.9593  
Epoch 19105/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9605  
Epoch 19106/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9607  
Epoch 19107/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0308 - accuracy:  
0.9606  
Epoch 19108/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0313 - accuracy:  
0.9589  
Epoch 19109/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0315 - accuracy:  
0.9605  
Epoch 19110/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9588  
Epoch 19111/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9587  
Epoch 19112/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0313 - accuracy:  
0.9594  
Epoch 19113/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy:  
0.9592  
Epoch 19114/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9598  
Epoch 19115/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9601  
Epoch 19116/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy:  
0.9599  
Epoch 19117/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9591  
Epoch 19118/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9599  
Epoch 19119/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0307 - accuracy:  
0.9601  
Epoch 19120/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9600  
Epoch 19121/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9594  
Epoch 19122/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0310 - accuracy:  
0.9597  
Epoch 19123/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9594  
Epoch 19124/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9605  
Epoch 19125/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9603  
Epoch 19126/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0316 - accuracy:  
0.9602  
Epoch 19127/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9609  
Epoch 19128/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9598  
Epoch 19129/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9597  
Epoch 19130/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9590  
Epoch 19131/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9603  
Epoch 19132/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9594  
Epoch 19133/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9588  
Epoch 19134/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9587  
Epoch 19135/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0327 - accuracy:  
0.9595  
Epoch 19136/100000



2/2 [=====] - 0s 114ms/step - loss: 0.0323 - accuracy:  
0.9592  
Epoch 19137/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9590  
Epoch 19138/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy:  
0.9600  
Epoch 19139/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9595  
Epoch 19140/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9595  
Epoch 19141/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9593  
Epoch 19142/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0316 - accuracy:  
0.9601  
Epoch 19143/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9590  
Epoch 19144/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0316 - accuracy:  
0.9597  
Epoch 19145/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy:  
0.9599  
Epoch 19146/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9594  
Epoch 19147/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9594  
Epoch 19148/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9594  
Epoch 19149/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9593  
Epoch 19150/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9599  
Epoch 19151/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9595  
Epoch 19152/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9589  
Epoch 19153/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0311 - accuracy: 0.9600  
Epoch 19154/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0309 - accuracy: 0.9592  
Epoch 19155/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0309 - accuracy: 0.9593  
Epoch 19156/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9598  
Epoch 19157/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0307 - accuracy: 0.9590  
Epoch 19158/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy: 0.9600  
Epoch 19159/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy: 0.9598  
Epoch 19160/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy: 0.9589  
Epoch 19161/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0314 - accuracy: 0.9601  
Epoch 19162/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9601  
Epoch 19163/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0315 - accuracy: 0.9599  
Epoch 19164/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0312 - accuracy: 0.9595  
Epoch 19165/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy: 0.9597  
Epoch 19166/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy: 0.9600  
Epoch 19167/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy: 0.9588  
Epoch 19168/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9599  
Epoch 19169/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9602  
Epoch 19170/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9591  
Epoch 19171/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9596  
Epoch 19172/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9600  
Epoch 19173/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0315 - accuracy:  
0.9601  
Epoch 19174/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy:  
0.9607  
Epoch 19175/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0313 - accuracy:  
0.9594  
Epoch 19176/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9595  
Epoch 19177/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9591  
Epoch 19178/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0309 - accuracy:  
0.9594  
Epoch 19179/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9597  
Epoch 19180/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0309 - accuracy:  
0.9591  
Epoch 19181/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9601  
Epoch 19182/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9601  
Epoch 19183/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0310 - accuracy:  
0.9603  
Epoch 19184/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9592  
Epoch 19185/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9596  
Epoch 19186/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0311 - accuracy:  
0.9598  
Epoch 19187/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy:  
0.9599  
Epoch 19188/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9591  
Epoch 19189/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9596  
Epoch 19190/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9595  
Epoch 19191/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9591  
Epoch 19192/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9596  
Epoch 19193/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy:  
0.9602  
Epoch 19194/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9595  
Epoch 19195/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9605  
Epoch 19196/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9591  
Epoch 19197/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9598  
Epoch 19198/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9601  
Epoch 19199/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0334 - accuracy:  
0.9597  
Epoch 19200/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0354 - accuracy:  
0.9598  
Epoch 19201/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9593  
Epoch 19202/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9594  
Epoch 19203/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0330 - accuracy:  
0.9586  
Epoch 19204/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0319 - accuracy:  
0.9598  
Epoch 19205/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9594  
Epoch 19206/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0313 - accuracy:  
0.9594  
Epoch 19207/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9596  
Epoch 19208/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9598  
Epoch 19209/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9604  
Epoch 19210/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0312 - accuracy:  
0.9602  
Epoch 19211/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9595  
Epoch 19212/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9594  
Epoch 19213/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy:  
0.9604  
Epoch 19214/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9594  
Epoch 19215/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9589  
Epoch 19216/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9593  
Epoch 19217/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9589  
Epoch 19218/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9602  
Epoch 19219/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9595  
Epoch 19220/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9596  
Epoch 19221/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9593  
Epoch 19222/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy:  
0.9595  
Epoch 19223/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9604  
Epoch 19224/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9608  
Epoch 19225/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9594  
Epoch 19226/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9601  
Epoch 19227/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0313 - accuracy:  
0.9592  
Epoch 19228/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy:  
0.9588  
Epoch 19229/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0314 - accuracy:  
0.9593  
Epoch 19230/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9599  
Epoch 19231/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9592  
Epoch 19232/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy: 0.9599  
Epoch 19233/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy: 0.9596  
Epoch 19234/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy: 0.9603  
Epoch 19235/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0314 - accuracy: 0.9588  
Epoch 19236/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9603  
Epoch 19237/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9592  
Epoch 19238/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy: 0.9595  
Epoch 19239/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy: 0.9606  
Epoch 19240/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0310 - accuracy: 0.9587  
Epoch 19241/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy: 0.9599  
Epoch 19242/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy: 0.9592  
Epoch 19243/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0312 - accuracy: 0.9593  
Epoch 19244/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0317 - accuracy: 0.9600  
Epoch 19245/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9590  
Epoch 19246/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy: 0.9604  
Epoch 19247/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9600  
Epoch 19248/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9592  
Epoch 19249/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9597  
Epoch 19250/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9598  
Epoch 19251/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9596  
Epoch 19252/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9600  
Epoch 19253/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9601  
Epoch 19254/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0306 - accuracy:  
0.9602  
Epoch 19255/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9594  
Epoch 19256/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9598  
Epoch 19257/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9593  
Epoch 19258/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0313 - accuracy:  
0.9605  
Epoch 19259/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0311 - accuracy:  
0.9597  
Epoch 19260/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9592  
Epoch 19261/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9596  
Epoch 19262/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9596  
Epoch 19263/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9599  
Epoch 19264/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9590  
Epoch 19265/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9594  
Epoch 19266/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9595  
Epoch 19267/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9591  
Epoch 19268/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9598  
Epoch 19269/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0312 - accuracy:  
0.9594  
Epoch 19270/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy:  
0.9596  
Epoch 19271/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9597  
Epoch 19272/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy:  
0.9592  
Epoch 19273/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9596  
Epoch 19274/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9602  
Epoch 19275/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0312 - accuracy:  
0.9593  
Epoch 19276/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy:  
0.9597  
Epoch 19277/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy:  
0.9593  
Epoch 19278/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9592  
Epoch 19279/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9591  
Epoch 19280/100000

2/2 [=====] - 0s 121ms/step - loss: 0.0314 - accuracy:  
0.9596  
Epoch 19281/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy:  
0.9590  
Epoch 19282/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0333 - accuracy:  
0.9604  
Epoch 19283/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0325 - accuracy:  
0.9596  
Epoch 19284/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9598  
Epoch 19285/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0335 - accuracy:  
0.9602  
Epoch 19286/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9595  
Epoch 19287/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9597  
Epoch 19288/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9595  
Epoch 19289/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9598  
Epoch 19290/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9599  
Epoch 19291/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9591  
Epoch 19292/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9596  
Epoch 19293/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9601  
Epoch 19294/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9601  
Epoch 19295/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9598  
Epoch 19296/100000

2/2 [=====] - 0s 119ms/step - loss: 0.0316 - accuracy:  
0.9601  
Epoch 19297/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9584  
Epoch 19298/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0323 - accuracy:  
0.9592  
Epoch 19299/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9602  
Epoch 19300/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9606  
Epoch 19301/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9604  
Epoch 19302/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy:  
0.9602  
Epoch 19303/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9601  
Epoch 19304/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0316 - accuracy:  
0.9604  
Epoch 19305/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9595  
Epoch 19306/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9602  
Epoch 19307/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9589  
Epoch 19308/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9597  
Epoch 19309/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0318 - accuracy:  
0.9598  
Epoch 19310/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9600  
Epoch 19311/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0310 - accuracy:  
0.9590  
Epoch 19312/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9596  
Epoch 19313/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9596  
Epoch 19314/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9593  
Epoch 19315/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9598  
Epoch 19316/100000  
2/2 [=====] - 0s 112ms/step - loss: 0.0316 - accuracy:  
0.9600  
Epoch 19317/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy:  
0.9593  
Epoch 19318/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0311 - accuracy:  
0.9593  
Epoch 19319/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0306 - accuracy:  
0.9597  
Epoch 19320/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9596  
Epoch 19321/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9592  
Epoch 19322/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9599  
Epoch 19323/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0311 - accuracy:  
0.9592  
Epoch 19324/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9595  
Epoch 19325/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0309 - accuracy:  
0.9588  
Epoch 19326/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9592  
Epoch 19327/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9606  
Epoch 19328/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9599  
Epoch 19329/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9600  
Epoch 19330/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy:  
0.9600  
Epoch 19331/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9599  
Epoch 19332/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0308 - accuracy:  
0.9598  
Epoch 19333/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9598  
Epoch 19334/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9591  
Epoch 19335/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0308 - accuracy:  
0.9598  
Epoch 19336/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9595  
Epoch 19337/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0306 - accuracy:  
0.9591  
Epoch 19338/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9593  
Epoch 19339/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9593  
Epoch 19340/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0314 - accuracy:  
0.9602  
Epoch 19341/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9596  
Epoch 19342/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9597  
Epoch 19343/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0320 - accuracy:  
0.9598  
Epoch 19344/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy:  
0.9596  
Epoch 19345/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9591  
Epoch 19346/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9604  
Epoch 19347/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy:  
0.9597  
Epoch 19348/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0314 - accuracy:  
0.9601  
Epoch 19349/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0315 - accuracy:  
0.9599  
Epoch 19350/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9597  
Epoch 19351/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0320 - accuracy:  
0.9593  
Epoch 19352/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9597  
Epoch 19353/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9589  
Epoch 19354/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0320 - accuracy:  
0.9593  
Epoch 19355/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0319 - accuracy:  
0.9600  
Epoch 19356/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9597  
Epoch 19357/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9592  
Epoch 19358/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0323 - accuracy:  
0.9591  
Epoch 19359/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9607  
Epoch 19360/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9591  
Epoch 19361/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0347 - accuracy:  
0.9590  
Epoch 19362/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0320 - accuracy:  
0.9591  
Epoch 19363/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9593  
Epoch 19364/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0328 - accuracy:  
0.9589  
Epoch 19365/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0320 - accuracy:  
0.9596  
Epoch 19366/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9596  
Epoch 19367/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0320 - accuracy:  
0.9595  
Epoch 19368/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0322 - accuracy:  
0.9604  
Epoch 19369/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9591  
Epoch 19370/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0310 - accuracy:  
0.9599  
Epoch 19371/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0315 - accuracy:  
0.9605  
Epoch 19372/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9586  
Epoch 19373/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9602  
Epoch 19374/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0308 - accuracy:  
0.9588  
Epoch 19375/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy:  
0.9592  
Epoch 19376/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9606  
Epoch 19377/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9587  
Epoch 19378/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9599  
Epoch 19379/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy:  
0.9588  
Epoch 19380/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9598  
Epoch 19381/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9585  
Epoch 19382/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9589  
Epoch 19383/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0307 - accuracy:  
0.9587  
Epoch 19384/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9590  
Epoch 19385/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9594  
Epoch 19386/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9600  
Epoch 19387/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9594  
Epoch 19388/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0309 - accuracy:  
0.9598  
Epoch 19389/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9603  
Epoch 19390/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9596  
Epoch 19391/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0315 - accuracy:  
0.9602  
Epoch 19392/100000



2/2 [=====] - 0s 121ms/step - loss: 0.0311 - accuracy:  
0.9598  
Epoch 19393/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9606  
Epoch 19394/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9593  
Epoch 19395/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9603  
Epoch 19396/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9599  
Epoch 19397/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9602  
Epoch 19398/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0314 - accuracy:  
0.9598  
Epoch 19399/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9600  
Epoch 19400/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9599  
Epoch 19401/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0312 - accuracy:  
0.9600  
Epoch 19402/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9600  
Epoch 19403/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9590  
Epoch 19404/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9596  
Epoch 19405/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9595  
Epoch 19406/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9592  
Epoch 19407/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9593  
Epoch 19408/100000

2/2 [=====] - 0s 119ms/step - loss: 0.0312 - accuracy: 0.9607  
Epoch 19409/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy: 0.9589  
Epoch 19410/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy: 0.9591  
Epoch 19411/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9593  
Epoch 19412/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy: 0.9596  
Epoch 19413/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9604  
Epoch 19414/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0305 - accuracy: 0.9593  
Epoch 19415/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0310 - accuracy: 0.9600  
Epoch 19416/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy: 0.9599  
Epoch 19417/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy: 0.9602  
Epoch 19418/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy: 0.9594  
Epoch 19419/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0305 - accuracy: 0.9590  
Epoch 19420/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9594  
Epoch 19421/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9593  
Epoch 19422/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy: 0.9598  
Epoch 19423/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9594  
Epoch 19424/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy: 0.9599  
Epoch 19425/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy: 0.9600  
Epoch 19426/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy: 0.9598  
Epoch 19427/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0347 - accuracy: 0.9601  
Epoch 19428/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0351 - accuracy: 0.9598  
Epoch 19429/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0343 - accuracy: 0.9595  
Epoch 19430/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy: 0.9596  
Epoch 19431/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0335 - accuracy: 0.9597  
Epoch 19432/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0344 - accuracy: 0.9596  
Epoch 19433/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0337 - accuracy: 0.9597  
Epoch 19434/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0329 - accuracy: 0.9603  
Epoch 19435/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy: 0.9597  
Epoch 19436/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy: 0.9588  
Epoch 19437/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy: 0.9600  
Epoch 19438/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy: 0.9597  
Epoch 19439/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy: 0.9593  
Epoch 19440/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9616  
Epoch 19441/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9596  
Epoch 19442/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9596  
Epoch 19443/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9595  
Epoch 19444/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9595  
Epoch 19445/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9594  
Epoch 19446/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9587  
Epoch 19447/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9608  
Epoch 19448/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9597  
Epoch 19449/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9604  
Epoch 19450/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9594  
Epoch 19451/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9586  
Epoch 19452/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9609  
Epoch 19453/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9592  
Epoch 19454/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9606  
Epoch 19455/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0305 - accuracy:  
0.9595  
Epoch 19456/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9599  
Epoch 19457/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9593  
Epoch 19458/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0312 - accuracy:  
0.9599  
Epoch 19459/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9601  
Epoch 19460/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9591  
Epoch 19461/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9600  
Epoch 19462/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy:  
0.9598  
Epoch 19463/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy:  
0.9599  
Epoch 19464/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9599  
Epoch 19465/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9592  
Epoch 19466/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9601  
Epoch 19467/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9602  
Epoch 19468/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9595  
Epoch 19469/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0324 - accuracy:  
0.9601  
Epoch 19470/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0335 - accuracy:  
0.9593  
Epoch 19471/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9595  
Epoch 19472/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9594  
Epoch 19473/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0319 - accuracy:  
0.9596  
Epoch 19474/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0327 - accuracy:  
0.9598  
Epoch 19475/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9590  
Epoch 19476/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9590  
Epoch 19477/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0319 - accuracy:  
0.9595  
Epoch 19478/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy:  
0.9598  
Epoch 19479/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0309 - accuracy:  
0.9592  
Epoch 19480/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy:  
0.9593  
Epoch 19481/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0319 - accuracy:  
0.9592  
Epoch 19482/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0320 - accuracy:  
0.9594  
Epoch 19483/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9603  
Epoch 19484/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9600  
Epoch 19485/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0339 - accuracy:  
0.9584  
Epoch 19486/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0324 - accuracy:  
0.9598  
Epoch 19487/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9599  
Epoch 19488/100000

2/2 [=====] - 0s 120ms/step - loss: 0.0324 - accuracy:  
0.9602  
Epoch 19489/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9600  
Epoch 19490/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9597  
Epoch 19491/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0319 - accuracy:  
0.9597  
Epoch 19492/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9597  
Epoch 19493/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0321 - accuracy:  
0.9596  
Epoch 19494/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9595  
Epoch 19495/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9594  
Epoch 19496/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy:  
0.9599  
Epoch 19497/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9598  
Epoch 19498/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9598  
Epoch 19499/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9597  
Epoch 19500/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9598  
Epoch 19501/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9602  
Epoch 19502/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0309 - accuracy:  
0.9592  
Epoch 19503/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0313 - accuracy:  
0.9608  
Epoch 19504/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9594  
Epoch 19505/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9596  
Epoch 19506/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0311 - accuracy:  
0.9591  
Epoch 19507/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9594  
Epoch 19508/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy:  
0.9599  
Epoch 19509/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9604  
Epoch 19510/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9595  
Epoch 19511/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9596  
Epoch 19512/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9596  
Epoch 19513/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0309 - accuracy:  
0.9596  
Epoch 19514/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0311 - accuracy:  
0.9603  
Epoch 19515/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9596  
Epoch 19516/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9581  
Epoch 19517/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0307 - accuracy:  
0.9602  
Epoch 19518/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9606  
Epoch 19519/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9600  
Epoch 19520/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9598  
Epoch 19521/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9600  
Epoch 19522/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9597  
Epoch 19523/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9599  
Epoch 19524/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9594  
Epoch 19525/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9597  
Epoch 19526/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9607  
Epoch 19527/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9603  
Epoch 19528/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9596  
Epoch 19529/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9602  
Epoch 19530/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9599  
Epoch 19531/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0309 - accuracy:  
0.9597  
Epoch 19532/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0309 - accuracy:  
0.9594  
Epoch 19533/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9591  
Epoch 19534/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9587  
Epoch 19535/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9593  
Epoch 19536/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9594  
Epoch 19537/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9588  
Epoch 19538/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0306 - accuracy:  
0.9589  
Epoch 19539/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0308 - accuracy:  
0.9593  
Epoch 19540/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9607  
Epoch 19541/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9592  
Epoch 19542/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0310 - accuracy:  
0.9603  
Epoch 19543/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9603  
Epoch 19544/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9596  
Epoch 19545/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9586  
Epoch 19546/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9595  
Epoch 19547/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0311 - accuracy:  
0.9596  
Epoch 19548/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9598  
Epoch 19549/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9595  
Epoch 19550/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0317 - accuracy:  
0.9603  
Epoch 19551/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9591  
Epoch 19552/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9602  
Epoch 19553/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9592  
Epoch 19554/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0307 - accuracy:  
0.9594  
Epoch 19555/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9597  
Epoch 19556/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9593  
Epoch 19557/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9602  
Epoch 19558/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9602  
Epoch 19559/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9599  
Epoch 19560/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9603  
Epoch 19561/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9591  
Epoch 19562/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy:  
0.9610  
Epoch 19563/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9603  
Epoch 19564/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0312 - accuracy:  
0.9605  
Epoch 19565/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy:  
0.9593  
Epoch 19566/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9598  
Epoch 19567/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9587  
Epoch 19568/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy:  
0.9596  
Epoch 19569/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0309 - accuracy:  
0.9602  
Epoch 19570/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0311 - accuracy:  
0.9595  
Epoch 19571/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9588  
Epoch 19572/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9586  
Epoch 19573/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9599  
Epoch 19574/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0313 - accuracy:  
0.9599  
Epoch 19575/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0316 - accuracy:  
0.9593  
Epoch 19576/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0318 - accuracy:  
0.9587  
Epoch 19577/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0336 - accuracy:  
0.9605  
Epoch 19578/100000  
2/2 [=====] - 0s 132ms/step - loss: 0.0334 - accuracy:  
0.9592  
Epoch 19579/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0331 - accuracy:  
0.9601  
Epoch 19580/100000  
2/2 [=====] - 0s 138ms/step - loss: 0.0334 - accuracy:  
0.9598  
Epoch 19581/100000  
2/2 [=====] - 0s 126ms/step - loss: 0.0331 - accuracy:  
0.9596  
Epoch 19582/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9596  
Epoch 19583/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy:  
0.9604  
Epoch 19584/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9602  
Epoch 19585/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0326 - accuracy:  
0.9604  
Epoch 19586/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9590  
Epoch 19587/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9591  
Epoch 19588/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9596  
Epoch 19589/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0311 - accuracy:  
0.9603  
Epoch 19590/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9605  
Epoch 19591/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9592  
Epoch 19592/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9593  
Epoch 19593/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0316 - accuracy:  
0.9588  
Epoch 19594/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9603  
Epoch 19595/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0320 - accuracy:  
0.9587  
Epoch 19596/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9602  
Epoch 19597/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9593  
Epoch 19598/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0322 - accuracy:  
0.9602  
Epoch 19599/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9605  
Epoch 19600/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy:  
0.9596  
Epoch 19601/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy:  
0.9598  
Epoch 19602/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9593  
Epoch 19603/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0310 - accuracy:  
0.9595  
Epoch 19604/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9602  
Epoch 19605/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy:  
0.9602  
Epoch 19606/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0313 - accuracy:  
0.9599  
Epoch 19607/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0317 - accuracy:  
0.9601  
Epoch 19608/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9596  
Epoch 19609/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9598  
Epoch 19610/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9601  
Epoch 19611/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9595  
Epoch 19612/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy:  
0.9602  
Epoch 19613/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9589  
Epoch 19614/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0335 - accuracy:  
0.9597  
Epoch 19615/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0330 - accuracy:  
0.9589  
Epoch 19616/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9598  
Epoch 19617/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9593  
Epoch 19618/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy:  
0.9591  
Epoch 19619/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9608  
Epoch 19620/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy:  
0.9593  
Epoch 19621/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9605  
Epoch 19622/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9597  
Epoch 19623/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9584  
Epoch 19624/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9603  
Epoch 19625/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9585  
Epoch 19626/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0314 - accuracy:  
0.9592  
Epoch 19627/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9596  
Epoch 19628/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9592  
Epoch 19629/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0335 - accuracy:  
0.9591  
Epoch 19630/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0324 - accuracy:  
0.9602  
Epoch 19631/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9598  
Epoch 19632/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9602  
Epoch 19633/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy:  
0.9593  
Epoch 19634/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9599  
Epoch 19635/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9605  
Epoch 19636/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9598  
Epoch 19637/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9595  
Epoch 19638/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9597  
Epoch 19639/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9595  
Epoch 19640/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0311 - accuracy:  
0.9592  
Epoch 19641/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9591  
Epoch 19642/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9592  
Epoch 19643/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0309 - accuracy:  
0.9605  
Epoch 19644/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9600  
Epoch 19645/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9595  
Epoch 19646/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0310 - accuracy:  
0.9596  
Epoch 19647/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0320 - accuracy:  
0.9592  
Epoch 19648/100000



2/2 [=====] - 0s 117ms/step - loss: 0.0325 - accuracy: 0.9605  
Epoch 19649/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0317 - accuracy: 0.9606  
Epoch 19650/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy: 0.9595  
Epoch 19651/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy: 0.9596  
Epoch 19652/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy: 0.9597  
Epoch 19653/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy: 0.9599  
Epoch 19654/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy: 0.9593  
Epoch 19655/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9591  
Epoch 19656/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy: 0.9591  
Epoch 19657/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9591  
Epoch 19658/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy: 0.9605  
Epoch 19659/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy: 0.9598  
Epoch 19660/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9588  
Epoch 19661/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy: 0.9602  
Epoch 19662/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9594  
Epoch 19663/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9593  
Epoch 19664/100000

2/2 [=====] - 0s 119ms/step - loss: 0.0308 - accuracy: 0.9595  
 Epoch 19665/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9601  
 Epoch 19666/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9600  
 Epoch 19667/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0309 - accuracy: 0.9603  
 Epoch 19668/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9597  
 Epoch 19669/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy: 0.9602  
 Epoch 19670/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy: 0.9596  
 Epoch 19671/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy: 0.9599  
 Epoch 19672/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy: 0.9596  
 Epoch 19673/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy: 0.9588  
 Epoch 19674/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0314 - accuracy: 0.9599  
 Epoch 19675/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0316 - accuracy: 0.9602  
 Epoch 19676/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy: 0.9601  
 Epoch 19677/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9593  
 Epoch 19678/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0309 - accuracy: 0.9591  
 Epoch 19679/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy: 0.9598  
 Epoch 19680/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9600  
Epoch 19681/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0313 - accuracy:  
0.9589  
Epoch 19682/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9587  
Epoch 19683/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9587  
Epoch 19684/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9600  
Epoch 19685/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9597  
Epoch 19686/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9595  
Epoch 19687/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0322 - accuracy:  
0.9599  
Epoch 19688/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9587  
Epoch 19689/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9593  
Epoch 19690/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9592  
Epoch 19691/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9595  
Epoch 19692/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy:  
0.9598  
Epoch 19693/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0317 - accuracy:  
0.9590  
Epoch 19694/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9597  
Epoch 19695/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9591  
Epoch 19696/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9592  
Epoch 19697/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0330 - accuracy:  
0.9599  
Epoch 19698/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0335 - accuracy:  
0.9596  
Epoch 19699/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9603  
Epoch 19700/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9594  
Epoch 19701/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0315 - accuracy:  
0.9607  
Epoch 19702/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0319 - accuracy:  
0.9597  
Epoch 19703/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9596  
Epoch 19704/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0330 - accuracy:  
0.9602  
Epoch 19705/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0325 - accuracy:  
0.9603  
Epoch 19706/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9592  
Epoch 19707/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9590  
Epoch 19708/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0315 - accuracy:  
0.9587  
Epoch 19709/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9597  
Epoch 19710/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9598  
Epoch 19711/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9599  
Epoch 19712/100000

2/2 [=====] - 0s 122ms/step - loss: 0.0312 - accuracy:  
0.9592  
Epoch 19713/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9587  
Epoch 19714/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9584  
Epoch 19715/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0310 - accuracy:  
0.9598  
Epoch 19716/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9588  
Epoch 19717/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9597  
Epoch 19718/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9595  
Epoch 19719/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9595  
Epoch 19720/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9603  
Epoch 19721/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9602  
Epoch 19722/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9605  
Epoch 19723/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9590  
Epoch 19724/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9595  
Epoch 19725/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9602  
Epoch 19726/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9595  
Epoch 19727/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0312 - accuracy:  
0.9596  
Epoch 19728/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9595  
Epoch 19729/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9598  
Epoch 19730/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9600  
Epoch 19731/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9594  
Epoch 19732/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9593  
Epoch 19733/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9592  
Epoch 19734/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9601  
Epoch 19735/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9592  
Epoch 19736/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9596  
Epoch 19737/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9587  
Epoch 19738/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy:  
0.9598  
Epoch 19739/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9596  
Epoch 19740/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9596  
Epoch 19741/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0311 - accuracy:  
0.9601  
Epoch 19742/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0313 - accuracy:  
0.9599  
Epoch 19743/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9602  
Epoch 19744/100000

2/2 [=====] - 0s 120ms/step - loss: 0.0310 - accuracy:  
0.9591  
Epoch 19745/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9606  
Epoch 19746/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9599  
Epoch 19747/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0308 - accuracy:  
0.9596  
Epoch 19748/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9596  
Epoch 19749/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9601  
Epoch 19750/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9602  
Epoch 19751/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0314 - accuracy:  
0.9589  
Epoch 19752/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9588  
Epoch 19753/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0319 - accuracy:  
0.9590  
Epoch 19754/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9592  
Epoch 19755/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0320 - accuracy:  
0.9597  
Epoch 19756/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0314 - accuracy:  
0.9590  
Epoch 19757/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0314 - accuracy:  
0.9592  
Epoch 19758/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9596  
Epoch 19759/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9599  
Epoch 19760/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0317 - accuracy:  
0.9593  
Epoch 19761/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9606  
Epoch 19762/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0319 - accuracy:  
0.9609  
Epoch 19763/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy:  
0.9587  
Epoch 19764/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9590  
Epoch 19765/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9600  
Epoch 19766/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9601  
Epoch 19767/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9594  
Epoch 19768/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy:  
0.9597  
Epoch 19769/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9589  
Epoch 19770/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0314 - accuracy:  
0.9597  
Epoch 19771/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0313 - accuracy:  
0.9605  
Epoch 19772/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0310 - accuracy:  
0.9596  
Epoch 19773/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9598  
Epoch 19774/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy:  
0.9594  
Epoch 19775/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9596  
Epoch 19776/100000



2/2 [=====] - 0s 118ms/step - loss: 0.0307 - accuracy:  
0.9598  
Epoch 19777/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9601  
Epoch 19778/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9600  
Epoch 19779/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9599  
Epoch 19780/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0313 - accuracy:  
0.9595  
Epoch 19781/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9586  
Epoch 19782/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9595  
Epoch 19783/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9597  
Epoch 19784/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9591  
Epoch 19785/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9599  
Epoch 19786/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9583  
Epoch 19787/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9601  
Epoch 19788/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0323 - accuracy:  
0.9603  
Epoch 19789/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9596  
Epoch 19790/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0350 - accuracy:  
0.9601  
Epoch 19791/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0352 - accuracy:  
0.9600  
Epoch 19792/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0337 - accuracy:  
0.9592  
Epoch 19793/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0328 - accuracy:  
0.9596  
Epoch 19794/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9598  
Epoch 19795/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9594  
Epoch 19796/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0320 - accuracy:  
0.9597  
Epoch 19797/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9598  
Epoch 19798/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9593  
Epoch 19799/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9600  
Epoch 19800/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9597  
Epoch 19801/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9602  
Epoch 19802/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9601  
Epoch 19803/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9603  
Epoch 19804/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9604  
Epoch 19805/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy:  
0.9595  
Epoch 19806/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0317 - accuracy:  
0.9600  
Epoch 19807/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9599  
Epoch 19808/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9596  
Epoch 19809/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9590  
Epoch 19810/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9597  
Epoch 19811/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy:  
0.9590  
Epoch 19812/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9600  
Epoch 19813/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0305 - accuracy:  
0.9594  
Epoch 19814/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9598  
Epoch 19815/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9594  
Epoch 19816/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9602  
Epoch 19817/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9597  
Epoch 19818/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9602  
Epoch 19819/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9596  
Epoch 19820/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9603  
Epoch 19821/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9597  
Epoch 19822/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9586  
Epoch 19823/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9604  
Epoch 19824/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9593  
Epoch 19825/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0304 - accuracy:  
0.9591  
Epoch 19826/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9594  
Epoch 19827/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0305 - accuracy:  
0.9596  
Epoch 19828/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy:  
0.9607  
Epoch 19829/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy:  
0.9606  
Epoch 19830/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9595  
Epoch 19831/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9591  
Epoch 19832/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9605  
Epoch 19833/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9592  
Epoch 19834/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9596  
Epoch 19835/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9592  
Epoch 19836/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9606  
Epoch 19837/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9590  
Epoch 19838/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy:  
0.9605  
Epoch 19839/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0307 - accuracy:  
0.9594  
Epoch 19840/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0312 - accuracy:  
0.9597  
Epoch 19841/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9590  
Epoch 19842/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9597  
Epoch 19843/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0311 - accuracy:  
0.9603  
Epoch 19844/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9604  
Epoch 19845/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy:  
0.9604  
Epoch 19846/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0310 - accuracy:  
0.9587  
Epoch 19847/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9587  
Epoch 19848/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9594  
Epoch 19849/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0311 - accuracy:  
0.9606  
Epoch 19850/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9605  
Epoch 19851/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9599  
Epoch 19852/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0312 - accuracy:  
0.9595  
Epoch 19853/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0304 - accuracy:  
0.9597  
Epoch 19854/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9591  
Epoch 19855/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0309 - accuracy:  
0.9592  
Epoch 19856/100000

2/2 [=====] - 0s 122ms/step - loss: 0.0312 - accuracy:  
0.9597  
Epoch 19857/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9608  
Epoch 19858/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0310 - accuracy:  
0.9598  
Epoch 19859/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0312 - accuracy:  
0.9603  
Epoch 19860/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9590  
Epoch 19861/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9594  
Epoch 19862/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9591  
Epoch 19863/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9599  
Epoch 19864/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9603  
Epoch 19865/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9593  
Epoch 19866/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9592  
Epoch 19867/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0309 - accuracy:  
0.9590  
Epoch 19868/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9599  
Epoch 19869/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9592  
Epoch 19870/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9597  
Epoch 19871/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0316 - accuracy:  
0.9598  
Epoch 19872/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9611  
Epoch 19873/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9596  
Epoch 19874/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9597  
Epoch 19875/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0308 - accuracy:  
0.9601  
Epoch 19876/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0310 - accuracy:  
0.9602  
Epoch 19877/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9602  
Epoch 19878/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9596  
Epoch 19879/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0317 - accuracy:  
0.9593  
Epoch 19880/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9606  
Epoch 19881/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy:  
0.9596  
Epoch 19882/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9593  
Epoch 19883/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0309 - accuracy:  
0.9595  
Epoch 19884/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy:  
0.9593  
Epoch 19885/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9594  
Epoch 19886/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0305 - accuracy:  
0.9593  
Epoch 19887/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9597  
Epoch 19888/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9592  
Epoch 19889/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9587  
Epoch 19890/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9599  
Epoch 19891/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9592  
Epoch 19892/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9596  
Epoch 19893/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9600  
Epoch 19894/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9601  
Epoch 19895/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9598  
Epoch 19896/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9589  
Epoch 19897/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9596  
Epoch 19898/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9589  
Epoch 19899/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0313 - accuracy:  
0.9598  
Epoch 19900/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy:  
0.9607  
Epoch 19901/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9593  
Epoch 19902/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0321 - accuracy:  
0.9601  
Epoch 19903/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0313 - accuracy:  
0.9590  
Epoch 19904/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9593  
Epoch 19905/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0315 - accuracy:  
0.9594  
Epoch 19906/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0313 - accuracy:  
0.9589  
Epoch 19907/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9591  
Epoch 19908/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9596  
Epoch 19909/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9602  
Epoch 19910/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9591  
Epoch 19911/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9586  
Epoch 19912/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9598  
Epoch 19913/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9601  
Epoch 19914/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9593  
Epoch 19915/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9607  
Epoch 19916/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9591  
Epoch 19917/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9596  
Epoch 19918/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9608  
Epoch 19919/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9595  
Epoch 19920/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0315 - accuracy:  
0.9603  
Epoch 19921/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9585  
Epoch 19922/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9596  
Epoch 19923/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9601  
Epoch 19924/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0310 - accuracy:  
0.9598  
Epoch 19925/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9595  
Epoch 19926/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9592  
Epoch 19927/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0311 - accuracy:  
0.9603  
Epoch 19928/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9593  
Epoch 19929/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9597  
Epoch 19930/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9594  
Epoch 19931/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9596  
Epoch 19932/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9596  
Epoch 19933/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9600  
Epoch 19934/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9593  
Epoch 19935/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9600  
Epoch 19936/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9593  
Epoch 19937/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy:  
0.9590  
Epoch 19938/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy:  
0.9593  
Epoch 19939/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy:  
0.9592  
Epoch 19940/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0317 - accuracy:  
0.9602  
Epoch 19941/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0311 - accuracy:  
0.9592  
Epoch 19942/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9590  
Epoch 19943/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9598  
Epoch 19944/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0312 - accuracy:  
0.9588  
Epoch 19945/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9594  
Epoch 19946/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9595  
Epoch 19947/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9604  
Epoch 19948/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0309 - accuracy:  
0.9599  
Epoch 19949/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9599  
Epoch 19950/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9593  
Epoch 19951/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0315 - accuracy:  
0.9596  
Epoch 19952/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9585  
Epoch 19953/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9599  
Epoch 19954/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9601  
Epoch 19955/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9601  
Epoch 19956/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9594  
Epoch 19957/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9598  
Epoch 19958/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9600  
Epoch 19959/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9601  
Epoch 19960/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9605  
Epoch 19961/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9594  
Epoch 19962/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0312 - accuracy:  
0.9594  
Epoch 19963/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9590  
Epoch 19964/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9603  
Epoch 19965/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0318 - accuracy:  
0.9596  
Epoch 19966/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0336 - accuracy:  
0.9595  
Epoch 19967/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9595  
Epoch 19968/100000

2/2 [=====] - 0s 123ms/step - loss: 0.0334 - accuracy:  
0.9594  
Epoch 19969/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0367 - accuracy:  
0.9604  
Epoch 19970/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0359 - accuracy:  
0.9597  
Epoch 19971/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0365 - accuracy:  
0.9600  
Epoch 19972/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0333 - accuracy:  
0.9580  
Epoch 19973/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy:  
0.9592  
Epoch 19974/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9591  
Epoch 19975/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0324 - accuracy:  
0.9596  
Epoch 19976/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9606  
Epoch 19977/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0325 - accuracy:  
0.9594  
Epoch 19978/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy:  
0.9597  
Epoch 19979/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9601  
Epoch 19980/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9604  
Epoch 19981/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9595  
Epoch 19982/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0309 - accuracy:  
0.9598  
Epoch 19983/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9602  
Epoch 19984/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9590  
Epoch 19985/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9600  
Epoch 19986/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9599  
Epoch 19987/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9592  
Epoch 19988/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9599  
Epoch 19989/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy:  
0.9592  
Epoch 19990/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0310 - accuracy:  
0.9609  
Epoch 19991/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy:  
0.9599  
Epoch 19992/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9595  
Epoch 19993/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy:  
0.9599  
Epoch 19994/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9607  
Epoch 19995/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9599  
Epoch 19996/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0315 - accuracy:  
0.9598  
Epoch 19997/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9603  
Epoch 19998/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9607  
Epoch 19999/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9601  
Epoch 20000/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9605  
Epoch 20001/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9603  
Epoch 20002/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9602  
Epoch 20003/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9591  
Epoch 20004/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0323 - accuracy:  
0.9598  
Epoch 20005/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9592  
Epoch 20006/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9598  
Epoch 20007/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0321 - accuracy:  
0.9599  
Epoch 20008/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9604  
Epoch 20009/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9587  
Epoch 20010/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0311 - accuracy:  
0.9593  
Epoch 20011/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9595  
Epoch 20012/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0310 - accuracy:  
0.9596  
Epoch 20013/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9592  
Epoch 20014/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9595  
Epoch 20015/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9602  
Epoch 20016/100000

2/2 [=====] - 0s 119ms/step - loss: 0.0317 - accuracy:  
0.9609  
Epoch 20017/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9606  
Epoch 20018/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9602  
Epoch 20019/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9596  
Epoch 20020/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0305 - accuracy:  
0.9588  
Epoch 20021/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0307 - accuracy:  
0.9592  
Epoch 20022/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9601  
Epoch 20023/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy:  
0.9595  
Epoch 20024/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9595  
Epoch 20025/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy:  
0.9600  
Epoch 20026/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9601  
Epoch 20027/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9605  
Epoch 20028/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9589  
Epoch 20029/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9588  
Epoch 20030/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9600  
Epoch 20031/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9595  
Epoch 20032/100000



2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9600  
Epoch 20033/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9608  
Epoch 20034/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9594  
Epoch 20035/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy:  
0.9597  
Epoch 20036/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9596  
Epoch 20037/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9588  
Epoch 20038/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9593  
Epoch 20039/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9601  
Epoch 20040/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0309 - accuracy:  
0.9587  
Epoch 20041/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9596  
Epoch 20042/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0309 - accuracy:  
0.9598  
Epoch 20043/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9606  
Epoch 20044/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9605  
Epoch 20045/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0310 - accuracy:  
0.9597  
Epoch 20046/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9598  
Epoch 20047/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy:  
0.9607  
Epoch 20048/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9594  
Epoch 20049/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0319 - accuracy:  
0.9602  
Epoch 20050/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9598  
Epoch 20051/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9588  
Epoch 20052/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0324 - accuracy:  
0.9598  
Epoch 20053/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9596  
Epoch 20054/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9597  
Epoch 20055/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9594  
Epoch 20056/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy:  
0.9597  
Epoch 20057/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9592  
Epoch 20058/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0312 - accuracy:  
0.9601  
Epoch 20059/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9588  
Epoch 20060/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0309 - accuracy:  
0.9594  
Epoch 20061/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9593  
Epoch 20062/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9598  
Epoch 20063/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9595  
Epoch 20064/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0316 - accuracy:  
0.9593  
Epoch 20065/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9602  
Epoch 20066/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0321 - accuracy:  
0.9599  
Epoch 20067/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9591  
Epoch 20068/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0311 - accuracy:  
0.9592  
Epoch 20069/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9601  
Epoch 20070/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0308 - accuracy:  
0.9587  
Epoch 20071/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9593  
Epoch 20072/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy:  
0.9591  
Epoch 20073/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9599  
Epoch 20074/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9599  
Epoch 20075/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0305 - accuracy:  
0.9596  
Epoch 20076/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9591  
Epoch 20077/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9596  
Epoch 20078/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy:  
0.9599  
Epoch 20079/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9597  
Epoch 20080/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9588  
Epoch 20081/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9595  
Epoch 20082/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9598  
Epoch 20083/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9596  
Epoch 20084/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0305 - accuracy:  
0.9591  
Epoch 20085/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9595  
Epoch 20086/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9597  
Epoch 20087/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9594  
Epoch 20088/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9600  
Epoch 20089/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0305 - accuracy:  
0.9597  
Epoch 20090/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9596  
Epoch 20091/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0312 - accuracy:  
0.9595  
Epoch 20092/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9589  
Epoch 20093/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9596  
Epoch 20094/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9603  
Epoch 20095/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0332 - accuracy:  
0.9596  
Epoch 20096/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0347 - accuracy:  
0.9599  
Epoch 20097/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9605  
Epoch 20098/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9595  
Epoch 20099/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0314 - accuracy:  
0.9602  
Epoch 20100/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0313 - accuracy:  
0.9601  
Epoch 20101/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9601  
Epoch 20102/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9596  
Epoch 20103/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0314 - accuracy:  
0.9606  
Epoch 20104/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0311 - accuracy:  
0.9599  
Epoch 20105/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0318 - accuracy:  
0.9591  
Epoch 20106/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9592  
Epoch 20107/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9600  
Epoch 20108/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9592  
Epoch 20109/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0309 - accuracy:  
0.9600  
Epoch 20110/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9590  
Epoch 20111/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9594  
Epoch 20112/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9595  
Epoch 20113/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0312 - accuracy: 0.9592  
Epoch 20114/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0311 - accuracy: 0.9597  
Epoch 20115/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0310 - accuracy: 0.9600  
Epoch 20116/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0304 - accuracy: 0.9594  
Epoch 20117/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0311 - accuracy: 0.9602  
Epoch 20118/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy: 0.9580  
Epoch 20119/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy: 0.9600  
Epoch 20120/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy: 0.9607  
Epoch 20121/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9591  
Epoch 20122/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0311 - accuracy: 0.9598  
Epoch 20123/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9597  
Epoch 20124/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy: 0.9600  
Epoch 20125/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0314 - accuracy: 0.9601  
Epoch 20126/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9602  
Epoch 20127/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0314 - accuracy: 0.9587  
Epoch 20128/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9591  
Epoch 20129/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9594  
Epoch 20130/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0309 - accuracy:  
0.9600  
Epoch 20131/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9596  
Epoch 20132/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy:  
0.9603  
Epoch 20133/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9597  
Epoch 20134/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0319 - accuracy:  
0.9593  
Epoch 20135/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9586  
Epoch 20136/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9595  
Epoch 20137/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0322 - accuracy:  
0.9604  
Epoch 20138/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0314 - accuracy:  
0.9592  
Epoch 20139/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0313 - accuracy:  
0.9601  
Epoch 20140/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0317 - accuracy:  
0.9600  
Epoch 20141/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9590  
Epoch 20142/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9604  
Epoch 20143/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0314 - accuracy:  
0.9599  
Epoch 20144/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9590  
Epoch 20145/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9597  
Epoch 20146/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0317 - accuracy:  
0.9595  
Epoch 20147/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9590  
Epoch 20148/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0310 - accuracy:  
0.9597  
Epoch 20149/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9589  
Epoch 20150/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy:  
0.9588  
Epoch 20151/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9597  
Epoch 20152/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9599  
Epoch 20153/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9600  
Epoch 20154/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9584  
Epoch 20155/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9598  
Epoch 20156/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy:  
0.9597  
Epoch 20157/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0324 - accuracy:  
0.9596  
Epoch 20158/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9602  
Epoch 20159/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9597  
Epoch 20160/100000



2/2 [=====] - 0s 119ms/step - loss: 0.0312 - accuracy:  
0.9591  
Epoch 20161/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9602  
Epoch 20162/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0313 - accuracy:  
0.9606  
Epoch 20163/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9588  
Epoch 20164/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9598  
Epoch 20165/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9592  
Epoch 20166/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9600  
Epoch 20167/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy:  
0.9591  
Epoch 20168/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9598  
Epoch 20169/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9604  
Epoch 20170/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9589  
Epoch 20171/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0313 - accuracy:  
0.9602  
Epoch 20172/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0309 - accuracy:  
0.9600  
Epoch 20173/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9598  
Epoch 20174/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0316 - accuracy:  
0.9598  
Epoch 20175/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0316 - accuracy:  
0.9603  
Epoch 20176/100000

2/2 [=====] - 0s 122ms/step - loss: 0.0308 - accuracy:  
0.9590  
Epoch 20177/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9589  
Epoch 20178/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9596  
Epoch 20179/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0313 - accuracy:  
0.9606  
Epoch 20180/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy:  
0.9596  
Epoch 20181/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9597  
Epoch 20182/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0311 - accuracy:  
0.9587  
Epoch 20183/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9592  
Epoch 20184/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9599  
Epoch 20185/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9593  
Epoch 20186/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9599  
Epoch 20187/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9605  
Epoch 20188/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9611  
Epoch 20189/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9592  
Epoch 20190/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9610  
Epoch 20191/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9597  
Epoch 20192/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9596  
Epoch 20193/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy: 0.9589  
Epoch 20194/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0308 - accuracy: 0.9593  
Epoch 20195/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9589  
Epoch 20196/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9598  
Epoch 20197/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9594  
Epoch 20198/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9596  
Epoch 20199/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0311 - accuracy: 0.9584  
Epoch 20200/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0307 - accuracy: 0.9591  
Epoch 20201/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0305 - accuracy: 0.9600  
Epoch 20202/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy: 0.9599  
Epoch 20203/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy: 0.9588  
Epoch 20204/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9600  
Epoch 20205/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9588  
Epoch 20206/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9596  
Epoch 20207/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9590  
Epoch 20208/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9603  
Epoch 20209/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0313 - accuracy:  
0.9584  
Epoch 20210/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0313 - accuracy:  
0.9599  
Epoch 20211/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9598  
Epoch 20212/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9593  
Epoch 20213/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9598  
Epoch 20214/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9590  
Epoch 20215/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0310 - accuracy:  
0.9593  
Epoch 20216/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9592  
Epoch 20217/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9590  
Epoch 20218/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9593  
Epoch 20219/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9601  
Epoch 20220/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9594  
Epoch 20221/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9593  
Epoch 20222/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9590  
Epoch 20223/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0326 - accuracy:  
0.9599  
Epoch 20224/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0324 - accuracy: 0.9602  
Epoch 20225/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy: 0.9597  
Epoch 20226/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy: 0.9605  
Epoch 20227/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy: 0.9602  
Epoch 20228/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy: 0.9596  
Epoch 20229/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy: 0.9589  
Epoch 20230/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy: 0.9603  
Epoch 20231/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0320 - accuracy: 0.9600  
Epoch 20232/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0317 - accuracy: 0.9602  
Epoch 20233/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0316 - accuracy: 0.9600  
Epoch 20234/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy: 0.9588  
Epoch 20235/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0315 - accuracy: 0.9605  
Epoch 20236/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy: 0.9604  
Epoch 20237/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9597  
Epoch 20238/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9597  
Epoch 20239/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9599  
Epoch 20240/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9595  
Epoch 20241/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy: 0.9596  
Epoch 20242/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9602  
Epoch 20243/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy: 0.9591  
Epoch 20244/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy: 0.9596  
Epoch 20245/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy: 0.9591  
Epoch 20246/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy: 0.9586  
Epoch 20247/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0322 - accuracy: 0.9601  
Epoch 20248/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0317 - accuracy: 0.9602  
Epoch 20249/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0309 - accuracy: 0.9596  
Epoch 20250/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy: 0.9597  
Epoch 20251/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy: 0.9601  
Epoch 20252/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0314 - accuracy: 0.9603  
Epoch 20253/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9593  
Epoch 20254/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0312 - accuracy: 0.9601  
Epoch 20255/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9597  
Epoch 20256/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9596  
Epoch 20257/100000  
2/2 [=====] - 0s 126ms/step - loss: 0.0310 - accuracy:  
0.9595  
Epoch 20258/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0309 - accuracy:  
0.9596  
Epoch 20259/100000  
2/2 [=====] - 0s 144ms/step - loss: 0.0309 - accuracy:  
0.9593  
Epoch 20260/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0306 - accuracy:  
0.9593  
Epoch 20261/100000  
2/2 [=====] - 0s 127ms/step - loss: 0.0306 - accuracy:  
0.9592  
Epoch 20262/100000  
2/2 [=====] - 0s 132ms/step - loss: 0.0305 - accuracy:  
0.9595  
Epoch 20263/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0318 - accuracy:  
0.9597  
Epoch 20264/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0314 - accuracy:  
0.9600  
Epoch 20265/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9602  
Epoch 20266/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0315 - accuracy:  
0.9597  
Epoch 20267/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0320 - accuracy:  
0.9601  
Epoch 20268/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy:  
0.9597  
Epoch 20269/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9592  
Epoch 20270/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9601  
Epoch 20271/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9594  
Epoch 20272/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9598  
Epoch 20273/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9596  
Epoch 20274/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy: 0.9598  
Epoch 20275/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0309 - accuracy: 0.9597  
Epoch 20276/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9595  
Epoch 20277/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9583  
Epoch 20278/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9596  
Epoch 20279/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy: 0.9595  
Epoch 20280/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0311 - accuracy: 0.9596  
Epoch 20281/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy: 0.9589  
Epoch 20282/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy: 0.9602  
Epoch 20283/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy: 0.9601  
Epoch 20284/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0311 - accuracy: 0.9606  
Epoch 20285/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9603  
Epoch 20286/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9599  
Epoch 20287/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy: 0.9591  
Epoch 20288/100000



2/2 [=====] - 0s 118ms/step - loss: 0.0308 - accuracy: 0.9593  
Epoch 20289/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy: 0.9585  
Epoch 20290/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9592  
Epoch 20291/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy: 0.9595  
Epoch 20292/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9585  
Epoch 20293/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9595  
Epoch 20294/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9594  
Epoch 20295/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy: 0.9602  
Epoch 20296/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9587  
Epoch 20297/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy: 0.9593  
Epoch 20298/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy: 0.9593  
Epoch 20299/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9606  
Epoch 20300/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0311 - accuracy: 0.9595  
Epoch 20301/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9600  
Epoch 20302/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy: 0.9593  
Epoch 20303/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy: 0.9598  
Epoch 20304/100000

2/2 [=====] - 0s 119ms/step - loss: 0.0311 - accuracy:  
0.9597  
Epoch 20305/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9607  
Epoch 20306/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9593  
Epoch 20307/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9596  
Epoch 20308/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0311 - accuracy:  
0.9592  
Epoch 20309/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0308 - accuracy:  
0.9597  
Epoch 20310/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9594  
Epoch 20311/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9586  
Epoch 20312/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9595  
Epoch 20313/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0309 - accuracy:  
0.9597  
Epoch 20314/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9604  
Epoch 20315/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9604  
Epoch 20316/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9591  
Epoch 20317/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9596  
Epoch 20318/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9588  
Epoch 20319/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0309 - accuracy:  
0.9595  
Epoch 20320/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy: 0.9599  
Epoch 20321/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy: 0.9612  
Epoch 20322/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9592  
Epoch 20323/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0312 - accuracy: 0.9606  
Epoch 20324/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9588  
Epoch 20325/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy: 0.9592  
Epoch 20326/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9591  
Epoch 20327/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy: 0.9600  
Epoch 20328/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy: 0.9596  
Epoch 20329/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0314 - accuracy: 0.9597  
Epoch 20330/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy: 0.9587  
Epoch 20331/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy: 0.9601  
Epoch 20332/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy: 0.9596  
Epoch 20333/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9600  
Epoch 20334/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy: 0.9595  
Epoch 20335/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0318 - accuracy: 0.9599  
Epoch 20336/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9602  
Epoch 20337/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0306 - accuracy:  
0.9590  
Epoch 20338/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0310 - accuracy:  
0.9594  
Epoch 20339/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9600  
Epoch 20340/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9596  
Epoch 20341/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy:  
0.9594  
Epoch 20342/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy:  
0.9591  
Epoch 20343/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0315 - accuracy:  
0.9592  
Epoch 20344/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9601  
Epoch 20345/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9605  
Epoch 20346/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9599  
Epoch 20347/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9592  
Epoch 20348/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0309 - accuracy:  
0.9601  
Epoch 20349/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9600  
Epoch 20350/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9605  
Epoch 20351/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9585  
Epoch 20352/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0317 - accuracy:  
0.9609  
Epoch 20353/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9610  
Epoch 20354/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9600  
Epoch 20355/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0325 - accuracy:  
0.9593  
Epoch 20356/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9591  
Epoch 20357/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9591  
Epoch 20358/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9596  
Epoch 20359/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9592  
Epoch 20360/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0316 - accuracy:  
0.9597  
Epoch 20361/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy:  
0.9601  
Epoch 20362/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9602  
Epoch 20363/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9600  
Epoch 20364/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9593  
Epoch 20365/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9600  
Epoch 20366/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0306 - accuracy:  
0.9599  
Epoch 20367/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9608  
Epoch 20368/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9593  
Epoch 20369/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9605  
Epoch 20370/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9604  
Epoch 20371/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9597  
Epoch 20372/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9598  
Epoch 20373/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9600  
Epoch 20374/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9599  
Epoch 20375/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9582  
Epoch 20376/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9588  
Epoch 20377/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0314 - accuracy:  
0.9604  
Epoch 20378/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0310 - accuracy:  
0.9598  
Epoch 20379/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9598  
Epoch 20380/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9592  
Epoch 20381/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9600  
Epoch 20382/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0309 - accuracy:  
0.9600  
Epoch 20383/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9591  
Epoch 20384/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0315 - accuracy:  
0.9595  
Epoch 20385/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0314 - accuracy:  
0.9601  
Epoch 20386/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9593  
Epoch 20387/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9596  
Epoch 20388/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9585  
Epoch 20389/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9594  
Epoch 20390/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9599  
Epoch 20391/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9607  
Epoch 20392/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9598  
Epoch 20393/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9597  
Epoch 20394/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9606  
Epoch 20395/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9598  
Epoch 20396/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0304 - accuracy:  
0.9586  
Epoch 20397/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9593  
Epoch 20398/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9602  
Epoch 20399/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9599  
Epoch 20400/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9599  
Epoch 20401/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy: 0.9593  
Epoch 20402/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy: 0.9601  
Epoch 20403/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9585  
Epoch 20404/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy: 0.9596  
Epoch 20405/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy: 0.9598  
Epoch 20406/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0312 - accuracy: 0.9605  
Epoch 20407/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy: 0.9596  
Epoch 20408/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0305 - accuracy: 0.9597  
Epoch 20409/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy: 0.9593  
Epoch 20410/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy: 0.9597  
Epoch 20411/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy: 0.9583  
Epoch 20412/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9599  
Epoch 20413/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0310 - accuracy: 0.9597  
Epoch 20414/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy: 0.9582  
Epoch 20415/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy: 0.9586  
Epoch 20416/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9588  
Epoch 20417/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9596  
Epoch 20418/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9600  
Epoch 20419/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9593  
Epoch 20420/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9588  
Epoch 20421/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0308 - accuracy:  
0.9596  
Epoch 20422/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9603  
Epoch 20423/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9588  
Epoch 20424/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy:  
0.9593  
Epoch 20425/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9596  
Epoch 20426/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9597  
Epoch 20427/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9594  
Epoch 20428/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9601  
Epoch 20429/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9601  
Epoch 20430/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9604  
Epoch 20431/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9596  
Epoch 20432/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy: 0.9590  
Epoch 20433/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy: 0.9593  
Epoch 20434/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0310 - accuracy: 0.9596  
Epoch 20435/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9596  
Epoch 20436/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy: 0.9599  
Epoch 20437/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9589  
Epoch 20438/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy: 0.9599  
Epoch 20439/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0312 - accuracy: 0.9591  
Epoch 20440/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy: 0.9594  
Epoch 20441/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy: 0.9599  
Epoch 20442/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy: 0.9593  
Epoch 20443/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0310 - accuracy: 0.9589  
Epoch 20444/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0313 - accuracy: 0.9597  
Epoch 20445/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy: 0.9594  
Epoch 20446/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy: 0.9592  
Epoch 20447/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy: 0.9590  
Epoch 20448/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy:  
0.9593  
Epoch 20449/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9599  
Epoch 20450/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9597  
Epoch 20451/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0307 - accuracy:  
0.9594  
Epoch 20452/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9593  
Epoch 20453/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy:  
0.9600  
Epoch 20454/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9598  
Epoch 20455/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9600  
Epoch 20456/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9606  
Epoch 20457/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0339 - accuracy:  
0.9592  
Epoch 20458/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0341 - accuracy:  
0.9598  
Epoch 20459/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0322 - accuracy:  
0.9592  
Epoch 20460/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0328 - accuracy:  
0.9598  
Epoch 20461/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy:  
0.9595  
Epoch 20462/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0328 - accuracy:  
0.9603  
Epoch 20463/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9595  
Epoch 20464/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9600  
Epoch 20465/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0320 - accuracy:  
0.9591  
Epoch 20466/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9608  
Epoch 20467/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9599  
Epoch 20468/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy:  
0.9589  
Epoch 20469/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9594  
Epoch 20470/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9589  
Epoch 20471/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0325 - accuracy:  
0.9607  
Epoch 20472/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9599  
Epoch 20473/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9606  
Epoch 20474/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0317 - accuracy:  
0.9595  
Epoch 20475/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9590  
Epoch 20476/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9596  
Epoch 20477/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9596  
Epoch 20478/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy:  
0.9602  
Epoch 20479/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9599  
Epoch 20480/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9593  
Epoch 20481/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0309 - accuracy:  
0.9593  
Epoch 20482/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9594  
Epoch 20483/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9595  
Epoch 20484/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9593  
Epoch 20485/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0323 - accuracy:  
0.9601  
Epoch 20486/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0329 - accuracy:  
0.9590  
Epoch 20487/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9610  
Epoch 20488/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0321 - accuracy:  
0.9610  
Epoch 20489/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9589  
Epoch 20490/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9603  
Epoch 20491/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0307 - accuracy:  
0.9594  
Epoch 20492/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9595  
Epoch 20493/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9592  
Epoch 20494/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9597  
Epoch 20495/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9602  
Epoch 20496/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0311 - accuracy: 0.9589  
Epoch 20497/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0318 - accuracy: 0.9592  
Epoch 20498/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy: 0.9600  
Epoch 20499/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0325 - accuracy: 0.9601  
Epoch 20500/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0316 - accuracy: 0.9595  
Epoch 20501/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy: 0.9590  
Epoch 20502/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9587  
Epoch 20503/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9599  
Epoch 20504/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9611  
Epoch 20505/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9600  
Epoch 20506/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy: 0.9599  
Epoch 20507/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy: 0.9608  
Epoch 20508/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9604  
Epoch 20509/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9596  
Epoch 20510/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0306 - accuracy: 0.9597  
Epoch 20511/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0302 - accuracy: 0.9599  
Epoch 20512/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9593  
Epoch 20513/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy: 0.9609  
Epoch 20514/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9600  
Epoch 20515/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0325 - accuracy: 0.9597  
Epoch 20516/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0313 - accuracy: 0.9591  
Epoch 20517/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0325 - accuracy: 0.9604  
Epoch 20518/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy: 0.9602  
Epoch 20519/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy: 0.9597  
Epoch 20520/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9607  
Epoch 20521/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy: 0.9596  
Epoch 20522/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy: 0.9595  
Epoch 20523/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9590  
Epoch 20524/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy: 0.9588  
Epoch 20525/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy: 0.9602  
Epoch 20526/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9599  
Epoch 20527/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9597  
Epoch 20528/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9608  
Epoch 20529/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9598  
Epoch 20530/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9590  
Epoch 20531/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy:  
0.9597  
Epoch 20532/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9598  
Epoch 20533/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9589  
Epoch 20534/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy:  
0.9601  
Epoch 20535/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9602  
Epoch 20536/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9599  
Epoch 20537/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy:  
0.9607  
Epoch 20538/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9596  
Epoch 20539/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9591  
Epoch 20540/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9591  
Epoch 20541/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9596  
Epoch 20542/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9599  
Epoch 20543/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9584  
Epoch 20544/100000



2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9590  
Epoch 20545/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9588  
Epoch 20546/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0305 - accuracy:  
0.9597  
Epoch 20547/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9594  
Epoch 20548/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9596  
Epoch 20549/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9603  
Epoch 20550/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0314 - accuracy:  
0.9598  
Epoch 20551/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0311 - accuracy:  
0.9603  
Epoch 20552/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9606  
Epoch 20553/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0315 - accuracy:  
0.9597  
Epoch 20554/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy:  
0.9601  
Epoch 20555/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0308 - accuracy:  
0.9594  
Epoch 20556/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9593  
Epoch 20557/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9597  
Epoch 20558/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9601  
Epoch 20559/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9603  
Epoch 20560/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9593  
Epoch 20561/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9595  
Epoch 20562/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0308 - accuracy:  
0.9598  
Epoch 20563/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0310 - accuracy:  
0.9606  
Epoch 20564/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9591  
Epoch 20565/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9584  
Epoch 20566/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy:  
0.9598  
Epoch 20567/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9599  
Epoch 20568/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9592  
Epoch 20569/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9581  
Epoch 20570/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy:  
0.9599  
Epoch 20571/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9592  
Epoch 20572/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9590  
Epoch 20573/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9598  
Epoch 20574/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9599  
Epoch 20575/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0327 - accuracy:  
0.9602  
Epoch 20576/100000

2/2 [=====] - 0s 120ms/step - loss: 0.0317 - accuracy:  
0.9596  
Epoch 20577/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9600  
Epoch 20578/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9604  
Epoch 20579/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9596  
Epoch 20580/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9603  
Epoch 20581/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9593  
Epoch 20582/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0323 - accuracy:  
0.9593  
Epoch 20583/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9592  
Epoch 20584/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9596  
Epoch 20585/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9605  
Epoch 20586/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9601  
Epoch 20587/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0317 - accuracy:  
0.9601  
Epoch 20588/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9591  
Epoch 20589/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy:  
0.9598  
Epoch 20590/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0314 - accuracy:  
0.9601  
Epoch 20591/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9601  
Epoch 20592/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9597  
Epoch 20593/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9603  
Epoch 20594/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0318 - accuracy:  
0.9605  
Epoch 20595/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9602  
Epoch 20596/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0323 - accuracy:  
0.9591  
Epoch 20597/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9591  
Epoch 20598/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9594  
Epoch 20599/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy:  
0.9597  
Epoch 20600/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9596  
Epoch 20601/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0307 - accuracy:  
0.9589  
Epoch 20602/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0315 - accuracy:  
0.9598  
Epoch 20603/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0321 - accuracy:  
0.9597  
Epoch 20604/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9595  
Epoch 20605/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9592  
Epoch 20606/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0320 - accuracy:  
0.9595  
Epoch 20607/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9603  
Epoch 20608/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy: 0.9584  
Epoch 20609/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0305 - accuracy: 0.9582  
Epoch 20610/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0317 - accuracy: 0.9605  
Epoch 20611/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0309 - accuracy: 0.9599  
Epoch 20612/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy: 0.9594  
Epoch 20613/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy: 0.9595  
Epoch 20614/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy: 0.9588  
Epoch 20615/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy: 0.9594  
Epoch 20616/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy: 0.9605  
Epoch 20617/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy: 0.9592  
Epoch 20618/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0324 - accuracy: 0.9588  
Epoch 20619/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy: 0.9593  
Epoch 20620/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy: 0.9591  
Epoch 20621/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy: 0.9596  
Epoch 20622/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy: 0.9601  
Epoch 20623/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9603  
Epoch 20624/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9593  
Epoch 20625/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9600  
Epoch 20626/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0310 - accuracy:  
0.9605  
Epoch 20627/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9604  
Epoch 20628/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0311 - accuracy:  
0.9601  
Epoch 20629/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9599  
Epoch 20630/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9597  
Epoch 20631/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0315 - accuracy:  
0.9607  
Epoch 20632/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9598  
Epoch 20633/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9602  
Epoch 20634/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0310 - accuracy:  
0.9601  
Epoch 20635/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy:  
0.9596  
Epoch 20636/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9607  
Epoch 20637/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9591  
Epoch 20638/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9591  
Epoch 20639/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9595  
Epoch 20640/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9596  
Epoch 20641/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0309 - accuracy: 0.9595  
Epoch 20642/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0311 - accuracy: 0.9593  
Epoch 20643/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy: 0.9598  
Epoch 20644/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0309 - accuracy: 0.9587  
Epoch 20645/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy: 0.9600  
Epoch 20646/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy: 0.9592  
Epoch 20647/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9603  
Epoch 20648/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9602  
Epoch 20649/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy: 0.9599  
Epoch 20650/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0315 - accuracy: 0.9596  
Epoch 20651/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy: 0.9594  
Epoch 20652/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy: 0.9590  
Epoch 20653/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0310 - accuracy: 0.9596  
Epoch 20654/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy: 0.9596  
Epoch 20655/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy: 0.9595  
Epoch 20656/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9598  
Epoch 20657/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9593  
Epoch 20658/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9597  
Epoch 20659/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0310 - accuracy:  
0.9605  
Epoch 20660/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9605  
Epoch 20661/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9601  
Epoch 20662/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9597  
Epoch 20663/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9600  
Epoch 20664/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy:  
0.9594  
Epoch 20665/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9589  
Epoch 20666/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9598  
Epoch 20667/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9589  
Epoch 20668/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9588  
Epoch 20669/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9594  
Epoch 20670/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9598  
Epoch 20671/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9596  
Epoch 20672/100000



2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy:  
0.9601  
Epoch 20673/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9594  
Epoch 20674/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9588  
Epoch 20675/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9586  
Epoch 20676/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9596  
Epoch 20677/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9596  
Epoch 20678/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9602  
Epoch 20679/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9599  
Epoch 20680/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9594  
Epoch 20681/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0307 - accuracy:  
0.9597  
Epoch 20682/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0308 - accuracy:  
0.9597  
Epoch 20683/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0308 - accuracy:  
0.9599  
Epoch 20684/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9592  
Epoch 20685/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9582  
Epoch 20686/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9605  
Epoch 20687/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9595  
Epoch 20688/100000

2/2 [=====] - 0s 120ms/step - loss: 0.0307 - accuracy: 0.9598  
Epoch 20689/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9605  
Epoch 20690/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9601  
Epoch 20691/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9601  
Epoch 20692/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy: 0.9599  
Epoch 20693/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy: 0.9600  
Epoch 20694/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy: 0.9600  
Epoch 20695/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy: 0.9594  
Epoch 20696/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy: 0.9601  
Epoch 20697/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy: 0.9592  
Epoch 20698/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy: 0.9589  
Epoch 20699/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy: 0.9596  
Epoch 20700/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy: 0.9590  
Epoch 20701/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy: 0.9603  
Epoch 20702/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy: 0.9595  
Epoch 20703/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0317 - accuracy: 0.9606  
Epoch 20704/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9589  
Epoch 20705/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9599  
Epoch 20706/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0316 - accuracy:  
0.9599  
Epoch 20707/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy:  
0.9587  
Epoch 20708/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9592  
Epoch 20709/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9597  
Epoch 20710/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0312 - accuracy:  
0.9595  
Epoch 20711/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0308 - accuracy:  
0.9592  
Epoch 20712/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0313 - accuracy:  
0.9591  
Epoch 20713/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0311 - accuracy:  
0.9600  
Epoch 20714/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9595  
Epoch 20715/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9599  
Epoch 20716/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy:  
0.9609  
Epoch 20717/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9596  
Epoch 20718/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9595  
Epoch 20719/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9607  
Epoch 20720/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9601  
Epoch 20721/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9588  
Epoch 20722/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9600  
Epoch 20723/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9601  
Epoch 20724/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9600  
Epoch 20725/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9595  
Epoch 20726/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9603  
Epoch 20727/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9590  
Epoch 20728/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9594  
Epoch 20729/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9592  
Epoch 20730/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0312 - accuracy:  
0.9601  
Epoch 20731/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0314 - accuracy:  
0.9598  
Epoch 20732/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9583  
Epoch 20733/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy:  
0.9595  
Epoch 20734/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9591  
Epoch 20735/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy:  
0.9601  
Epoch 20736/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9596  
Epoch 20737/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0312 - accuracy:  
0.9591  
Epoch 20738/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0310 - accuracy:  
0.9611  
Epoch 20739/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0306 - accuracy:  
0.9599  
Epoch 20740/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9593  
Epoch 20741/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9593  
Epoch 20742/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy:  
0.9602  
Epoch 20743/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy:  
0.9599  
Epoch 20744/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9598  
Epoch 20745/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9599  
Epoch 20746/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0322 - accuracy:  
0.9603  
Epoch 20747/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9592  
Epoch 20748/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy:  
0.9590  
Epoch 20749/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9599  
Epoch 20750/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9599  
Epoch 20751/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0310 - accuracy:  
0.9593  
Epoch 20752/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9595  
Epoch 20753/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0336 - accuracy:  
0.9592  
Epoch 20754/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9594  
Epoch 20755/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0329 - accuracy:  
0.9594  
Epoch 20756/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9591  
Epoch 20757/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0353 - accuracy:  
0.9603  
Epoch 20758/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9596  
Epoch 20759/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9594  
Epoch 20760/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0325 - accuracy:  
0.9593  
Epoch 20761/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0322 - accuracy:  
0.9604  
Epoch 20762/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0319 - accuracy:  
0.9597  
Epoch 20763/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy:  
0.9613  
Epoch 20764/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy:  
0.9589  
Epoch 20765/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9595  
Epoch 20766/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9600  
Epoch 20767/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0310 - accuracy:  
0.9588  
Epoch 20768/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9601  
Epoch 20769/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9596  
Epoch 20770/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9593  
Epoch 20771/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0317 - accuracy:  
0.9597  
Epoch 20772/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9591  
Epoch 20773/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9595  
Epoch 20774/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9588  
Epoch 20775/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9597  
Epoch 20776/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0307 - accuracy:  
0.9595  
Epoch 20777/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9592  
Epoch 20778/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9601  
Epoch 20779/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9601  
Epoch 20780/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9592  
Epoch 20781/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9597  
Epoch 20782/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9601  
Epoch 20783/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0306 - accuracy:  
0.9596  
Epoch 20784/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9594  
Epoch 20785/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9590  
Epoch 20786/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9599  
Epoch 20787/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0318 - accuracy:  
0.9596  
Epoch 20788/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9594  
Epoch 20789/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9601  
Epoch 20790/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0321 - accuracy:  
0.9596  
Epoch 20791/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9597  
Epoch 20792/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9599  
Epoch 20793/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0313 - accuracy:  
0.9603  
Epoch 20794/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0314 - accuracy:  
0.9603  
Epoch 20795/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9591  
Epoch 20796/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9591  
Epoch 20797/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9593  
Epoch 20798/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9589  
Epoch 20799/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0308 - accuracy:  
0.9587  
Epoch 20800/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9595  
Epoch 20801/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9600  
Epoch 20802/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9595  
Epoch 20803/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy:  
0.9600  
Epoch 20804/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0310 - accuracy:  
0.9596  
Epoch 20805/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9593  
Epoch 20806/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9594  
Epoch 20807/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0309 - accuracy:  
0.9600  
Epoch 20808/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9591  
Epoch 20809/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9600  
Epoch 20810/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0308 - accuracy:  
0.9588  
Epoch 20811/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9585  
Epoch 20812/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy:  
0.9595  
Epoch 20813/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9590  
Epoch 20814/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9590  
Epoch 20815/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0326 - accuracy:  
0.9597  
Epoch 20816/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0317 - accuracy:  
0.9597  
Epoch 20817/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9590  
Epoch 20818/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9600  
Epoch 20819/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0323 - accuracy:  
0.9600  
Epoch 20820/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9595  
Epoch 20821/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9592  
Epoch 20822/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0316 - accuracy:  
0.9591  
Epoch 20823/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy:  
0.9595  
Epoch 20824/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9589  
Epoch 20825/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy:  
0.9607  
Epoch 20826/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9601  
Epoch 20827/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9601  
Epoch 20828/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9601  
Epoch 20829/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9606  
Epoch 20830/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9602  
Epoch 20831/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9611  
Epoch 20832/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0316 - accuracy: 0.9591  
 Epoch 20833/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9592  
 Epoch 20834/100000  
 2/2 [=====] - 0s 120ms/step - loss: 0.0309 - accuracy: 0.9592  
 Epoch 20835/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9598  
 Epoch 20836/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9601  
 Epoch 20837/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy: 0.9602  
 Epoch 20838/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9605  
 Epoch 20839/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy: 0.9598  
 Epoch 20840/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy: 0.9592  
 Epoch 20841/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy: 0.9602  
 Epoch 20842/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9593  
 Epoch 20843/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0309 - accuracy: 0.9596  
 Epoch 20844/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy: 0.9599  
 Epoch 20845/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9588  
 Epoch 20846/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9587  
 Epoch 20847/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9590  
 Epoch 20848/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9601  
Epoch 20849/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9605  
Epoch 20850/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0313 - accuracy: 0.9601  
Epoch 20851/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9601  
Epoch 20852/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0307 - accuracy: 0.9591  
Epoch 20853/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9605  
Epoch 20854/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0308 - accuracy: 0.9592  
Epoch 20855/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9595  
Epoch 20856/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy: 0.9594  
Epoch 20857/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9594  
Epoch 20858/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy: 0.9598  
Epoch 20859/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy: 0.9598  
Epoch 20860/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy: 0.9593  
Epoch 20861/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0307 - accuracy: 0.9592  
Epoch 20862/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9605  
Epoch 20863/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0308 - accuracy: 0.9600  
Epoch 20864/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9603  
Epoch 20865/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0312 - accuracy:  
0.9603  
Epoch 20866/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9598  
Epoch 20867/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0318 - accuracy:  
0.9601  
Epoch 20868/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9597  
Epoch 20869/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy:  
0.9601  
Epoch 20870/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9600  
Epoch 20871/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0306 - accuracy:  
0.9608  
Epoch 20872/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0310 - accuracy:  
0.9608  
Epoch 20873/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9602  
Epoch 20874/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0312 - accuracy:  
0.9594  
Epoch 20875/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0311 - accuracy:  
0.9595  
Epoch 20876/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9598  
Epoch 20877/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0312 - accuracy:  
0.9598  
Epoch 20878/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy:  
0.9599  
Epoch 20879/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9598  
Epoch 20880/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9597  
Epoch 20881/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0314 - accuracy:  
0.9600  
Epoch 20882/100000  
2/2 [=====] - 0s 126ms/step - loss: 0.0309 - accuracy:  
0.9605  
Epoch 20883/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9600  
Epoch 20884/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9597  
Epoch 20885/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9592  
Epoch 20886/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0316 - accuracy:  
0.9598  
Epoch 20887/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9597  
Epoch 20888/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9604  
Epoch 20889/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9594  
Epoch 20890/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0334 - accuracy:  
0.9590  
Epoch 20891/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0322 - accuracy:  
0.9595  
Epoch 20892/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9600  
Epoch 20893/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0328 - accuracy:  
0.9599  
Epoch 20894/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9594  
Epoch 20895/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0335 - accuracy:  
0.9600  
Epoch 20896/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0329 - accuracy:  
0.9592  
Epoch 20897/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9592  
Epoch 20898/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9594  
Epoch 20899/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9594  
Epoch 20900/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9594  
Epoch 20901/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy:  
0.9597  
Epoch 20902/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9589  
Epoch 20903/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9589  
Epoch 20904/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy:  
0.9591  
Epoch 20905/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9597  
Epoch 20906/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9590  
Epoch 20907/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9601  
Epoch 20908/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9595  
Epoch 20909/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy:  
0.9595  
Epoch 20910/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9597  
Epoch 20911/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0304 - accuracy:  
0.9596  
Epoch 20912/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9607  
Epoch 20913/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9594  
Epoch 20914/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0302 - accuracy:  
0.9593  
Epoch 20915/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9592  
Epoch 20916/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9603  
Epoch 20917/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0305 - accuracy:  
0.9589  
Epoch 20918/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9589  
Epoch 20919/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9594  
Epoch 20920/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9593  
Epoch 20921/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0306 - accuracy:  
0.9590  
Epoch 20922/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9600  
Epoch 20923/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9590  
Epoch 20924/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0314 - accuracy:  
0.9588  
Epoch 20925/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0306 - accuracy:  
0.9595  
Epoch 20926/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0303 - accuracy:  
0.9599  
Epoch 20927/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9600  
Epoch 20928/100000



2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy: 0.9593  
Epoch 20929/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy: 0.9602  
Epoch 20930/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0314 - accuracy: 0.9602  
Epoch 20931/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy: 0.9601  
Epoch 20932/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0322 - accuracy: 0.9594  
Epoch 20933/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy: 0.9604  
Epoch 20934/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9603  
Epoch 20935/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy: 0.9597  
Epoch 20936/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy: 0.9601  
Epoch 20937/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy: 0.9595  
Epoch 20938/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0313 - accuracy: 0.9599  
Epoch 20939/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy: 0.9599  
Epoch 20940/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy: 0.9593  
Epoch 20941/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0313 - accuracy: 0.9593  
Epoch 20942/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy: 0.9600  
Epoch 20943/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0319 - accuracy: 0.9597  
Epoch 20944/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy: 0.9598  
Epoch 20945/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy: 0.9603  
Epoch 20946/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy: 0.9593  
Epoch 20947/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9594  
Epoch 20948/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy: 0.9596  
Epoch 20949/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9592  
Epoch 20950/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9594  
Epoch 20951/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0308 - accuracy: 0.9598  
Epoch 20952/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy: 0.9593  
Epoch 20953/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy: 0.9601  
Epoch 20954/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0303 - accuracy: 0.9589  
Epoch 20955/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9594  
Epoch 20956/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy: 0.9596  
Epoch 20957/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy: 0.9596  
Epoch 20958/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy: 0.9600  
Epoch 20959/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy: 0.9595  
Epoch 20960/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9604  
Epoch 20961/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9597  
Epoch 20962/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0313 - accuracy:  
0.9595  
Epoch 20963/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9607  
Epoch 20964/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0307 - accuracy:  
0.9590  
Epoch 20965/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy:  
0.9599  
Epoch 20966/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0328 - accuracy:  
0.9601  
Epoch 20967/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9600  
Epoch 20968/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9602  
Epoch 20969/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9591  
Epoch 20970/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9597  
Epoch 20971/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9599  
Epoch 20972/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy:  
0.9595  
Epoch 20973/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0311 - accuracy:  
0.9588  
Epoch 20974/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9599  
Epoch 20975/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9601  
Epoch 20976/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9605  
Epoch 20977/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0312 - accuracy:  
0.9592  
Epoch 20978/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9598  
Epoch 20979/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9593  
Epoch 20980/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9611  
Epoch 20981/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9594  
Epoch 20982/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0319 - accuracy:  
0.9595  
Epoch 20983/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0315 - accuracy:  
0.9601  
Epoch 20984/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0317 - accuracy:  
0.9590  
Epoch 20985/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy:  
0.9587  
Epoch 20986/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9596  
Epoch 20987/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9597  
Epoch 20988/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9590  
Epoch 20989/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy:  
0.9594  
Epoch 20990/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0313 - accuracy:  
0.9589  
Epoch 20991/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9591  
Epoch 20992/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9596  
Epoch 20993/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9593  
Epoch 20994/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0311 - accuracy:  
0.9595  
Epoch 20995/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9597  
Epoch 20996/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9597  
Epoch 20997/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9604  
Epoch 20998/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9601  
Epoch 20999/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0307 - accuracy:  
0.9602  
Epoch 21000/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9591  
Epoch 21001/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9606  
Epoch 21002/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0304 - accuracy:  
0.9597  
Epoch 21003/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9586  
Epoch 21004/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0307 - accuracy:  
0.9597  
Epoch 21005/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9594  
Epoch 21006/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0309 - accuracy:  
0.9599  
Epoch 21007/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9592  
Epoch 21008/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9605  
Epoch 21009/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0305 - accuracy:  
0.9598  
Epoch 21010/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0310 - accuracy:  
0.9591  
Epoch 21011/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9601  
Epoch 21012/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9603  
Epoch 21013/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9584  
Epoch 21014/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9606  
Epoch 21015/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0302 - accuracy:  
0.9595  
Epoch 21016/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9602  
Epoch 21017/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9594  
Epoch 21018/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9611  
Epoch 21019/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9597  
Epoch 21020/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9591  
Epoch 21021/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9589  
Epoch 21022/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9591  
Epoch 21023/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9602  
Epoch 21024/100000

2/2 [=====] - 0s 120ms/step - loss: 0.0311 - accuracy:  
0.9598  
Epoch 21025/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9597  
Epoch 21026/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9594  
Epoch 21027/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9594  
Epoch 21028/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9588  
Epoch 21029/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9607  
Epoch 21030/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0326 - accuracy:  
0.9611  
Epoch 21031/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy:  
0.9596  
Epoch 21032/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9595  
Epoch 21033/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9588  
Epoch 21034/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9598  
Epoch 21035/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9592  
Epoch 21036/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy:  
0.9594  
Epoch 21037/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9602  
Epoch 21038/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9595  
Epoch 21039/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9598  
Epoch 21040/100000

2/2 [=====] - 0s 126ms/step - loss: 0.0310 - accuracy:  
0.9603  
Epoch 21041/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9597  
Epoch 21042/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9591  
Epoch 21043/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9596  
Epoch 21044/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9598  
Epoch 21045/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9591  
Epoch 21046/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9598  
Epoch 21047/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0316 - accuracy:  
0.9598  
Epoch 21048/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9595  
Epoch 21049/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9597  
Epoch 21050/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9595  
Epoch 21051/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0312 - accuracy:  
0.9599  
Epoch 21052/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9589  
Epoch 21053/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9590  
Epoch 21054/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9592  
Epoch 21055/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9606  
Epoch 21056/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy: 0.9596  
Epoch 21057/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy: 0.9599  
Epoch 21058/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0310 - accuracy: 0.9602  
Epoch 21059/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0310 - accuracy: 0.9595  
Epoch 21060/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy: 0.9597  
Epoch 21061/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9602  
Epoch 21062/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9600  
Epoch 21063/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy: 0.9595  
Epoch 21064/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy: 0.9601  
Epoch 21065/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9604  
Epoch 21066/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0309 - accuracy: 0.9589  
Epoch 21067/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy: 0.9594  
Epoch 21068/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9599  
Epoch 21069/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy: 0.9602  
Epoch 21070/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9598  
Epoch 21071/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9591  
Epoch 21072/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0312 - accuracy:  
0.9605  
Epoch 21073/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0313 - accuracy:  
0.9601  
Epoch 21074/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9588  
Epoch 21075/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0322 - accuracy:  
0.9604  
Epoch 21076/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9603  
Epoch 21077/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9599  
Epoch 21078/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9601  
Epoch 21079/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0321 - accuracy:  
0.9600  
Epoch 21080/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy:  
0.9586  
Epoch 21081/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9595  
Epoch 21082/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9586  
Epoch 21083/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9600  
Epoch 21084/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9604  
Epoch 21085/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0324 - accuracy:  
0.9600  
Epoch 21086/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9598  
Epoch 21087/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9601  
Epoch 21088/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy:  
0.9595  
Epoch 21089/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9595  
Epoch 21090/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9598  
Epoch 21091/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9603  
Epoch 21092/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9601  
Epoch 21093/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9598  
Epoch 21094/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9586  
Epoch 21095/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0310 - accuracy:  
0.9602  
Epoch 21096/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9599  
Epoch 21097/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9596  
Epoch 21098/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0305 - accuracy:  
0.9604  
Epoch 21099/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9597  
Epoch 21100/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9584  
Epoch 21101/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9589  
Epoch 21102/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9592  
Epoch 21103/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9602  
Epoch 21104/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9598  
Epoch 21105/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0309 - accuracy:  
0.9603  
Epoch 21106/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0305 - accuracy:  
0.9606  
Epoch 21107/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy:  
0.9596  
Epoch 21108/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9598  
Epoch 21109/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0307 - accuracy:  
0.9602  
Epoch 21110/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9597  
Epoch 21111/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9602  
Epoch 21112/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9591  
Epoch 21113/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9599  
Epoch 21114/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0304 - accuracy:  
0.9598  
Epoch 21115/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9607  
Epoch 21116/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9590  
Epoch 21117/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9603  
Epoch 21118/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9601  
Epoch 21119/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9593  
Epoch 21120/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9594  
Epoch 21121/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9601  
Epoch 21122/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy:  
0.9594  
Epoch 21123/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy:  
0.9608  
Epoch 21124/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9593  
Epoch 21125/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9588  
Epoch 21126/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9606  
Epoch 21127/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9594  
Epoch 21128/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9595  
Epoch 21129/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9595  
Epoch 21130/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9591  
Epoch 21131/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9597  
Epoch 21132/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9602  
Epoch 21133/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9601  
Epoch 21134/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9604  
Epoch 21135/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9598  
Epoch 21136/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9594  
Epoch 21137/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0324 - accuracy:  
0.9592  
Epoch 21138/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0313 - accuracy:  
0.9593  
Epoch 21139/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9598  
Epoch 21140/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy:  
0.9594  
Epoch 21141/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9601  
Epoch 21142/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9607  
Epoch 21143/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0311 - accuracy:  
0.9594  
Epoch 21144/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0306 - accuracy:  
0.9594  
Epoch 21145/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9596  
Epoch 21146/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9601  
Epoch 21147/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9590  
Epoch 21148/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9599  
Epoch 21149/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy:  
0.9597  
Epoch 21150/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9598  
Epoch 21151/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy:  
0.9590  
Epoch 21152/100000

2/2 [=====] - 0s 121ms/step - loss: 0.0316 - accuracy:  
0.9607  
Epoch 21153/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9586  
Epoch 21154/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0306 - accuracy:  
0.9592  
Epoch 21155/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9592  
Epoch 21156/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9600  
Epoch 21157/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9600  
Epoch 21158/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9597  
Epoch 21159/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0321 - accuracy:  
0.9597  
Epoch 21160/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy:  
0.9593  
Epoch 21161/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9603  
Epoch 21162/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9595  
Epoch 21163/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0330 - accuracy:  
0.9598  
Epoch 21164/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy:  
0.9598  
Epoch 21165/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9593  
Epoch 21166/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9594  
Epoch 21167/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0327 - accuracy:  
0.9595  
Epoch 21168/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy:  
0.9595  
Epoch 21169/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9597  
Epoch 21170/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9598  
Epoch 21171/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9600  
Epoch 21172/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9594  
Epoch 21173/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9598  
Epoch 21174/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0317 - accuracy:  
0.9599  
Epoch 21175/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy:  
0.9598  
Epoch 21176/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9593  
Epoch 21177/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0337 - accuracy:  
0.9591  
Epoch 21178/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9600  
Epoch 21179/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0321 - accuracy:  
0.9601  
Epoch 21180/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9596  
Epoch 21181/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9597  
Epoch 21182/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9589  
Epoch 21183/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9592  
Epoch 21184/100000



2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9599  
Epoch 21185/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9602  
Epoch 21186/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9593  
Epoch 21187/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9590  
Epoch 21188/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9586  
Epoch 21189/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9605  
Epoch 21190/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0315 - accuracy:  
0.9592  
Epoch 21191/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9593  
Epoch 21192/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9594  
Epoch 21193/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy:  
0.9599  
Epoch 21194/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9587  
Epoch 21195/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9591  
Epoch 21196/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9601  
Epoch 21197/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9597  
Epoch 21198/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy:  
0.9601  
Epoch 21199/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9599  
Epoch 21200/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0304 - accuracy:  
0.9590  
Epoch 21201/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9601  
Epoch 21202/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0306 - accuracy:  
0.9601  
Epoch 21203/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9596  
Epoch 21204/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9593  
Epoch 21205/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0303 - accuracy:  
0.9603  
Epoch 21206/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9592  
Epoch 21207/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0307 - accuracy:  
0.9603  
Epoch 21208/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9602  
Epoch 21209/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9597  
Epoch 21210/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0308 - accuracy:  
0.9597  
Epoch 21211/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9595  
Epoch 21212/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9598  
Epoch 21213/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9599  
Epoch 21214/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy:  
0.9597  
Epoch 21215/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0319 - accuracy:  
0.9604  
Epoch 21216/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy:  
0.9597  
Epoch 21217/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9595  
Epoch 21218/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9604  
Epoch 21219/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9597  
Epoch 21220/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0317 - accuracy:  
0.9598  
Epoch 21221/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9605  
Epoch 21222/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9593  
Epoch 21223/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0309 - accuracy:  
0.9587  
Epoch 21224/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9594  
Epoch 21225/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9593  
Epoch 21226/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9587  
Epoch 21227/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0307 - accuracy:  
0.9595  
Epoch 21228/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9597  
Epoch 21229/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy:  
0.9597  
Epoch 21230/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9602  
Epoch 21231/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9599  
Epoch 21232/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9598  
Epoch 21233/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9602  
Epoch 21234/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9589  
Epoch 21235/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9587  
Epoch 21236/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0310 - accuracy:  
0.9597  
Epoch 21237/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9597  
Epoch 21238/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9600  
Epoch 21239/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9596  
Epoch 21240/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9597  
Epoch 21241/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9598  
Epoch 21242/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9599  
Epoch 21243/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0316 - accuracy:  
0.9595  
Epoch 21244/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy:  
0.9584  
Epoch 21245/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9600  
Epoch 21246/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy:  
0.9602  
Epoch 21247/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9591  
Epoch 21248/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9596  
Epoch 21249/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9594  
Epoch 21250/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9602  
Epoch 21251/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy:  
0.9597  
Epoch 21252/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9598  
Epoch 21253/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9598  
Epoch 21254/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9597  
Epoch 21255/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9602  
Epoch 21256/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9593  
Epoch 21257/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9593  
Epoch 21258/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9593  
Epoch 21259/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9591  
Epoch 21260/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9592  
Epoch 21261/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9605  
Epoch 21262/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0317 - accuracy:  
0.9600  
Epoch 21263/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9589  
Epoch 21264/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9592  
Epoch 21265/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9604  
Epoch 21266/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9590  
Epoch 21267/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9594  
Epoch 21268/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9588  
Epoch 21269/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9595  
Epoch 21270/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9595  
Epoch 21271/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9589  
Epoch 21272/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9594  
Epoch 21273/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9602  
Epoch 21274/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9606  
Epoch 21275/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9600  
Epoch 21276/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy:  
0.9586  
Epoch 21277/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9601  
Epoch 21278/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9594  
Epoch 21279/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9604  
Epoch 21280/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9598  
Epoch 21281/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0311 - accuracy:  
0.9600  
Epoch 21282/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9600  
Epoch 21283/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9593  
Epoch 21284/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9603  
Epoch 21285/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9611  
Epoch 21286/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9594  
Epoch 21287/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9603  
Epoch 21288/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9599  
Epoch 21289/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9592  
Epoch 21290/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9595  
Epoch 21291/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9598  
Epoch 21292/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0305 - accuracy:  
0.9601  
Epoch 21293/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9607  
Epoch 21294/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9596  
Epoch 21295/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9596  
Epoch 21296/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9588  
Epoch 21297/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0319 - accuracy: 0.9601  
Epoch 21298/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9594  
Epoch 21299/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy: 0.9592  
Epoch 21300/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9593  
Epoch 21301/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0313 - accuracy: 0.9601  
Epoch 21302/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy: 0.9594  
Epoch 21303/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy: 0.9603  
Epoch 21304/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0314 - accuracy: 0.9599  
Epoch 21305/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0318 - accuracy: 0.9592  
Epoch 21306/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9597  
Epoch 21307/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9596  
Epoch 21308/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy: 0.9598  
Epoch 21309/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9598  
Epoch 21310/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9594  
Epoch 21311/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy: 0.9595  
Epoch 21312/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9590  
 Epoch 21313/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy: 0.9591  
 Epoch 21314/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy: 0.9597  
 Epoch 21315/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9589  
 Epoch 21316/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy: 0.9590  
 Epoch 21317/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0320 - accuracy: 0.9607  
 Epoch 21318/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9587  
 Epoch 21319/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0309 - accuracy: 0.9592  
 Epoch 21320/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9587  
 Epoch 21321/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0315 - accuracy: 0.9599  
 Epoch 21322/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy: 0.9597  
 Epoch 21323/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy: 0.9599  
 Epoch 21324/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy: 0.9583  
 Epoch 21325/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0311 - accuracy: 0.9592  
 Epoch 21326/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy: 0.9602  
 Epoch 21327/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy: 0.9598  
 Epoch 21328/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9600  
Epoch 21329/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9602  
Epoch 21330/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9602  
Epoch 21331/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9604  
Epoch 21332/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9600  
Epoch 21333/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9596  
Epoch 21334/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9594  
Epoch 21335/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9592  
Epoch 21336/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9594  
Epoch 21337/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9600  
Epoch 21338/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0311 - accuracy:  
0.9595  
Epoch 21339/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9600  
Epoch 21340/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9599  
Epoch 21341/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy:  
0.9595  
Epoch 21342/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9598  
Epoch 21343/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9599  
Epoch 21344/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9594  
Epoch 21345/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy:  
0.9596  
Epoch 21346/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0316 - accuracy:  
0.9598  
Epoch 21347/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9601  
Epoch 21348/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9601  
Epoch 21349/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9604  
Epoch 21350/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9599  
Epoch 21351/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9599  
Epoch 21352/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9595  
Epoch 21353/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0303 - accuracy:  
0.9598  
Epoch 21354/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9599  
Epoch 21355/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9601  
Epoch 21356/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9594  
Epoch 21357/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0328 - accuracy:  
0.9596  
Epoch 21358/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0323 - accuracy:  
0.9598  
Epoch 21359/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0361 - accuracy:  
0.9603  
Epoch 21360/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0392 - accuracy:  
0.9595  
Epoch 21361/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0353 - accuracy:  
0.9596  
Epoch 21362/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9602  
Epoch 21363/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0331 - accuracy:  
0.9598  
Epoch 21364/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9591  
Epoch 21365/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0321 - accuracy:  
0.9602  
Epoch 21366/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9587  
Epoch 21367/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0330 - accuracy:  
0.9595  
Epoch 21368/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9600  
Epoch 21369/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9596  
Epoch 21370/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9605  
Epoch 21371/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0312 - accuracy:  
0.9609  
Epoch 21372/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9597  
Epoch 21373/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9597  
Epoch 21374/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9598  
Epoch 21375/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0311 - accuracy:  
0.9599  
Epoch 21376/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0317 - accuracy:  
0.9590  
Epoch 21377/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9607  
Epoch 21378/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9598  
Epoch 21379/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0307 - accuracy:  
0.9591  
Epoch 21380/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0314 - accuracy:  
0.9602  
Epoch 21381/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy:  
0.9600  
Epoch 21382/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9589  
Epoch 21383/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0308 - accuracy:  
0.9606  
Epoch 21384/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9595  
Epoch 21385/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9599  
Epoch 21386/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy:  
0.9596  
Epoch 21387/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9594  
Epoch 21388/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9594  
Epoch 21389/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9600  
Epoch 21390/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0309 - accuracy:  
0.9596  
Epoch 21391/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy:  
0.9597  
Epoch 21392/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9599  
Epoch 21393/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9601  
Epoch 21394/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0314 - accuracy:  
0.9605  
Epoch 21395/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9595  
Epoch 21396/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9599  
Epoch 21397/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0316 - accuracy:  
0.9607  
Epoch 21398/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9602  
Epoch 21399/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9595  
Epoch 21400/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9592  
Epoch 21401/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9595  
Epoch 21402/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy:  
0.9601  
Epoch 21403/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0317 - accuracy:  
0.9590  
Epoch 21404/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9594  
Epoch 21405/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0315 - accuracy:  
0.9602  
Epoch 21406/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9596  
Epoch 21407/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9599  
Epoch 21408/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9590  
Epoch 21409/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9596  
Epoch 21410/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9596  
Epoch 21411/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9590  
Epoch 21412/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9600  
Epoch 21413/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9597  
Epoch 21414/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9601  
Epoch 21415/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0314 - accuracy:  
0.9600  
Epoch 21416/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9595  
Epoch 21417/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0310 - accuracy:  
0.9599  
Epoch 21418/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0310 - accuracy:  
0.9591  
Epoch 21419/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9599  
Epoch 21420/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9601  
Epoch 21421/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9604  
Epoch 21422/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9600  
Epoch 21423/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9591  
Epoch 21424/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9595  
Epoch 21425/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9594  
Epoch 21426/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy: 0.9598  
Epoch 21427/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy: 0.9597  
Epoch 21428/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0304 - accuracy: 0.9586  
Epoch 21429/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy: 0.9599  
Epoch 21430/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9601  
Epoch 21431/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy: 0.9596  
Epoch 21432/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9600  
Epoch 21433/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9601  
Epoch 21434/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0309 - accuracy: 0.9596  
Epoch 21435/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9596  
Epoch 21436/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0307 - accuracy: 0.9585  
Epoch 21437/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy: 0.9609  
Epoch 21438/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy: 0.9591  
Epoch 21439/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy: 0.9589  
Epoch 21440/100000



2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9596  
Epoch 21441/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0303 - accuracy:  
0.9604  
Epoch 21442/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0307 - accuracy:  
0.9596  
Epoch 21443/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0302 - accuracy:  
0.9599  
Epoch 21444/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0312 - accuracy:  
0.9596  
Epoch 21445/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0305 - accuracy:  
0.9590  
Epoch 21446/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9591  
Epoch 21447/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9591  
Epoch 21448/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0302 - accuracy:  
0.9592  
Epoch 21449/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9601  
Epoch 21450/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9600  
Epoch 21451/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9600  
Epoch 21452/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0310 - accuracy:  
0.9613  
Epoch 21453/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9591  
Epoch 21454/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9594  
Epoch 21455/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9590  
Epoch 21456/100000

2/2 [=====] - 0s 123ms/step - loss: 0.0318 - accuracy:  
0.9604  
Epoch 21457/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9595  
Epoch 21458/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9595  
Epoch 21459/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9593  
Epoch 21460/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0311 - accuracy:  
0.9594  
Epoch 21461/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0311 - accuracy:  
0.9597  
Epoch 21462/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9596  
Epoch 21463/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9608  
Epoch 21464/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0306 - accuracy:  
0.9593  
Epoch 21465/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9590  
Epoch 21466/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9594  
Epoch 21467/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9593  
Epoch 21468/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9598  
Epoch 21469/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9597  
Epoch 21470/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0308 - accuracy:  
0.9604  
Epoch 21471/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9596  
Epoch 21472/100000

2/2 [=====] - 0s 121ms/step - loss: 0.0307 - accuracy:  
0.9598  
Epoch 21473/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9598  
Epoch 21474/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9589  
Epoch 21475/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0317 - accuracy:  
0.9605  
Epoch 21476/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9606  
Epoch 21477/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9588  
Epoch 21478/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9597  
Epoch 21479/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9591  
Epoch 21480/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0308 - accuracy:  
0.9594  
Epoch 21481/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0311 - accuracy:  
0.9593  
Epoch 21482/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9591  
Epoch 21483/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9599  
Epoch 21484/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9598  
Epoch 21485/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9595  
Epoch 21486/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9598  
Epoch 21487/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9591  
Epoch 21488/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9606  
Epoch 21489/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0314 - accuracy:  
0.9600  
Epoch 21490/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9597  
Epoch 21491/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9589  
Epoch 21492/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9595  
Epoch 21493/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9591  
Epoch 21494/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9596  
Epoch 21495/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9594  
Epoch 21496/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9594  
Epoch 21497/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9595  
Epoch 21498/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0305 - accuracy:  
0.9594  
Epoch 21499/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9592  
Epoch 21500/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9591  
Epoch 21501/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9594  
Epoch 21502/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9592  
Epoch 21503/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9592  
Epoch 21504/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0307 - accuracy:  
0.9591  
Epoch 21505/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0306 - accuracy:  
0.9603  
Epoch 21506/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9590  
Epoch 21507/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9589  
Epoch 21508/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9595  
Epoch 21509/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9597  
Epoch 21510/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0304 - accuracy:  
0.9601  
Epoch 21511/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9600  
Epoch 21512/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9587  
Epoch 21513/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0308 - accuracy:  
0.9595  
Epoch 21514/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9593  
Epoch 21515/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9593  
Epoch 21516/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9599  
Epoch 21517/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9594  
Epoch 21518/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9602  
Epoch 21519/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9589  
Epoch 21520/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9606  
Epoch 21521/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9597  
Epoch 21522/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9590  
Epoch 21523/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0306 - accuracy:  
0.9595  
Epoch 21524/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9602  
Epoch 21525/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9596  
Epoch 21526/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9601  
Epoch 21527/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9600  
Epoch 21528/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9599  
Epoch 21529/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9595  
Epoch 21530/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9593  
Epoch 21531/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0307 - accuracy:  
0.9595  
Epoch 21532/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0309 - accuracy:  
0.9597  
Epoch 21533/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9588  
Epoch 21534/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9600  
Epoch 21535/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9596  
Epoch 21536/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0305 - accuracy:  
0.9589  
Epoch 21537/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9593  
Epoch 21538/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9593  
Epoch 21539/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9600  
Epoch 21540/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0319 - accuracy:  
0.9587  
Epoch 21541/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9593  
Epoch 21542/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9603  
Epoch 21543/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9588  
Epoch 21544/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9589  
Epoch 21545/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9593  
Epoch 21546/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9591  
Epoch 21547/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9600  
Epoch 21548/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0312 - accuracy:  
0.9599  
Epoch 21549/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9594  
Epoch 21550/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9603  
Epoch 21551/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0309 - accuracy:  
0.9595  
Epoch 21552/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9598  
Epoch 21553/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9599  
Epoch 21554/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0309 - accuracy:  
0.9604  
Epoch 21555/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9599  
Epoch 21556/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9604  
Epoch 21557/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9598  
Epoch 21558/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9586  
Epoch 21559/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9587  
Epoch 21560/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9593  
Epoch 21561/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9599  
Epoch 21562/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0316 - accuracy:  
0.9599  
Epoch 21563/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9588  
Epoch 21564/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9602  
Epoch 21565/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9600  
Epoch 21566/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9599  
Epoch 21567/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9604  
Epoch 21568/100000



2/2 [=====] - 0s 119ms/step - loss: 0.0310 - accuracy:  
0.9593  
Epoch 21569/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0307 - accuracy:  
0.9593  
Epoch 21570/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9593  
Epoch 21571/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0309 - accuracy:  
0.9596  
Epoch 21572/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9594  
Epoch 21573/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9595  
Epoch 21574/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9603  
Epoch 21575/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9602  
Epoch 21576/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9612  
Epoch 21577/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0309 - accuracy:  
0.9591  
Epoch 21578/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9595  
Epoch 21579/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9605  
Epoch 21580/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9601  
Epoch 21581/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0311 - accuracy:  
0.9596  
Epoch 21582/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9600  
Epoch 21583/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9595  
Epoch 21584/100000

2/2 [=====] - 0s 119ms/step - loss: 0.0315 - accuracy: 0.9595  
 Epoch 21585/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy: 0.9586  
 Epoch 21586/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy: 0.9594  
 Epoch 21587/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy: 0.9607  
 Epoch 21588/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy: 0.9581  
 Epoch 21589/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy: 0.9609  
 Epoch 21590/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy: 0.9599  
 Epoch 21591/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy: 0.9587  
 Epoch 21592/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy: 0.9603  
 Epoch 21593/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0320 - accuracy: 0.9601  
 Epoch 21594/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy: 0.9598  
 Epoch 21595/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0311 - accuracy: 0.9591  
 Epoch 21596/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy: 0.9602  
 Epoch 21597/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9598  
 Epoch 21598/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9589  
 Epoch 21599/100000  
 2/2 [=====] - 0s 120ms/step - loss: 0.0302 - accuracy: 0.9592  
 Epoch 21600/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9599  
Epoch 21601/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9600  
Epoch 21602/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9612  
Epoch 21603/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9595  
Epoch 21604/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9593  
Epoch 21605/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9595  
Epoch 21606/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9593  
Epoch 21607/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9595  
Epoch 21608/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9605  
Epoch 21609/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0303 - accuracy:  
0.9605  
Epoch 21610/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9589  
Epoch 21611/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9587  
Epoch 21612/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9600  
Epoch 21613/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0309 - accuracy:  
0.9596  
Epoch 21614/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9600  
Epoch 21615/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9594  
Epoch 21616/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0308 - accuracy:  
0.9591  
Epoch 21617/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9598  
Epoch 21618/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9603  
Epoch 21619/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9600  
Epoch 21620/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0305 - accuracy:  
0.9597  
Epoch 21621/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9591  
Epoch 21622/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9608  
Epoch 21623/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9590  
Epoch 21624/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9589  
Epoch 21625/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9596  
Epoch 21626/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9595  
Epoch 21627/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9593  
Epoch 21628/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9592  
Epoch 21629/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9605  
Epoch 21630/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0317 - accuracy:  
0.9598  
Epoch 21631/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9601  
Epoch 21632/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9603  
Epoch 21633/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0317 - accuracy:  
0.9594  
Epoch 21634/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9600  
Epoch 21635/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9595  
Epoch 21636/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9601  
Epoch 21637/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9595  
Epoch 21638/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9594  
Epoch 21639/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9598  
Epoch 21640/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0309 - accuracy:  
0.9594  
Epoch 21641/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9600  
Epoch 21642/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9592  
Epoch 21643/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9597  
Epoch 21644/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0314 - accuracy:  
0.9593  
Epoch 21645/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0312 - accuracy:  
0.9597  
Epoch 21646/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0312 - accuracy:  
0.9594  
Epoch 21647/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0318 - accuracy:  
0.9598  
Epoch 21648/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy:  
0.9597  
Epoch 21649/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9595  
Epoch 21650/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9591  
Epoch 21651/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9587  
Epoch 21652/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0305 - accuracy:  
0.9594  
Epoch 21653/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9604  
Epoch 21654/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9597  
Epoch 21655/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9594  
Epoch 21656/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9596  
Epoch 21657/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0311 - accuracy:  
0.9603  
Epoch 21658/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0309 - accuracy:  
0.9606  
Epoch 21659/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9604  
Epoch 21660/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0310 - accuracy:  
0.9598  
Epoch 21661/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9587  
Epoch 21662/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9595  
Epoch 21663/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9602  
Epoch 21664/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9591  
Epoch 21665/100000  
2/2 [=====] - 0s 126ms/step - loss: 0.0303 - accuracy:  
0.9586  
Epoch 21666/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9598  
Epoch 21667/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9595  
Epoch 21668/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9589  
Epoch 21669/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0308 - accuracy:  
0.9595  
Epoch 21670/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9599  
Epoch 21671/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9594  
Epoch 21672/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9589  
Epoch 21673/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9600  
Epoch 21674/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9607  
Epoch 21675/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy:  
0.9597  
Epoch 21676/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9589  
Epoch 21677/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0310 - accuracy:  
0.9598  
Epoch 21678/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9593  
Epoch 21679/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9601  
Epoch 21680/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9593  
Epoch 21681/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9598  
Epoch 21682/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9594  
Epoch 21683/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9589  
Epoch 21684/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9589  
Epoch 21685/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9591  
Epoch 21686/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0305 - accuracy:  
0.9598  
Epoch 21687/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9596  
Epoch 21688/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9603  
Epoch 21689/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy:  
0.9598  
Epoch 21690/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy:  
0.9595  
Epoch 21691/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9592  
Epoch 21692/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9597  
Epoch 21693/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9590  
Epoch 21694/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0359 - accuracy:  
0.9586  
Epoch 21695/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0343 - accuracy:  
0.9602  
Epoch 21696/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0365 - accuracy: 0.9586  
Epoch 21697/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0373 - accuracy: 0.9592  
Epoch 21698/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0373 - accuracy: 0.9592  
Epoch 21699/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0357 - accuracy: 0.9594  
Epoch 21700/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0350 - accuracy: 0.9591  
Epoch 21701/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy: 0.9589  
Epoch 21702/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy: 0.9591  
Epoch 21703/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy: 0.9600  
Epoch 21704/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy: 0.9591  
Epoch 21705/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy: 0.9601  
Epoch 21706/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy: 0.9594  
Epoch 21707/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy: 0.9585  
Epoch 21708/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy: 0.9585  
Epoch 21709/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy: 0.9593  
Epoch 21710/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy: 0.9607  
Epoch 21711/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy: 0.9598  
Epoch 21712/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9600  
Epoch 21713/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9594  
Epoch 21714/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0314 - accuracy:  
0.9600  
Epoch 21715/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0315 - accuracy:  
0.9593  
Epoch 21716/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0313 - accuracy:  
0.9592  
Epoch 21717/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9598  
Epoch 21718/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9591  
Epoch 21719/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0305 - accuracy:  
0.9599  
Epoch 21720/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0311 - accuracy:  
0.9599  
Epoch 21721/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9595  
Epoch 21722/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0306 - accuracy:  
0.9594  
Epoch 21723/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9597  
Epoch 21724/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9610  
Epoch 21725/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy:  
0.9598  
Epoch 21726/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9602  
Epoch 21727/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9589  
Epoch 21728/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9603  
Epoch 21729/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9596  
Epoch 21730/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9607  
Epoch 21731/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9601  
Epoch 21732/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9593  
Epoch 21733/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9605  
Epoch 21734/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9596  
Epoch 21735/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0307 - accuracy:  
0.9598  
Epoch 21736/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9595  
Epoch 21737/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9602  
Epoch 21738/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9596  
Epoch 21739/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9590  
Epoch 21740/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy:  
0.9600  
Epoch 21741/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9600  
Epoch 21742/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9606  
Epoch 21743/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9592  
Epoch 21744/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9597  
Epoch 21745/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9601  
Epoch 21746/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0315 - accuracy:  
0.9604  
Epoch 21747/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9590  
Epoch 21748/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9607  
Epoch 21749/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0320 - accuracy:  
0.9605  
Epoch 21750/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9593  
Epoch 21751/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9600  
Epoch 21752/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9594  
Epoch 21753/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9600  
Epoch 21754/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0313 - accuracy:  
0.9597  
Epoch 21755/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0308 - accuracy:  
0.9596  
Epoch 21756/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9595  
Epoch 21757/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9594  
Epoch 21758/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9589  
Epoch 21759/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9594  
Epoch 21760/100000

2/2 [=====] - 0s 119ms/step - loss: 0.0309 - accuracy:  
0.9591  
Epoch 21761/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9597  
Epoch 21762/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9608  
Epoch 21763/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0314 - accuracy:  
0.9599  
Epoch 21764/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy:  
0.9593  
Epoch 21765/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9596  
Epoch 21766/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9599  
Epoch 21767/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9607  
Epoch 21768/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0309 - accuracy:  
0.9601  
Epoch 21769/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9597  
Epoch 21770/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0309 - accuracy:  
0.9593  
Epoch 21771/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0316 - accuracy:  
0.9606  
Epoch 21772/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9592  
Epoch 21773/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9591  
Epoch 21774/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9595  
Epoch 21775/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9597  
Epoch 21776/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy: 0.9590  
Epoch 21777/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0314 - accuracy: 0.9603  
Epoch 21778/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0313 - accuracy: 0.9598  
Epoch 21779/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy: 0.9593  
Epoch 21780/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9593  
Epoch 21781/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9598  
Epoch 21782/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0309 - accuracy: 0.9586  
Epoch 21783/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9599  
Epoch 21784/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9602  
Epoch 21785/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0304 - accuracy: 0.9598  
Epoch 21786/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy: 0.9597  
Epoch 21787/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy: 0.9607  
Epoch 21788/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9605  
Epoch 21789/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy: 0.9595  
Epoch 21790/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0311 - accuracy: 0.9606  
Epoch 21791/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9603  
Epoch 21792/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9597  
Epoch 21793/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0310 - accuracy:  
0.9601  
Epoch 21794/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9597  
Epoch 21795/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9590  
Epoch 21796/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9600  
Epoch 21797/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9588  
Epoch 21798/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9607  
Epoch 21799/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9604  
Epoch 21800/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9598  
Epoch 21801/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0306 - accuracy:  
0.9596  
Epoch 21802/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9609  
Epoch 21803/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9598  
Epoch 21804/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9600  
Epoch 21805/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy:  
0.9611  
Epoch 21806/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9600  
Epoch 21807/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9596  
Epoch 21808/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9588  
Epoch 21809/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0307 - accuracy:  
0.9596  
Epoch 21810/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0310 - accuracy:  
0.9594  
Epoch 21811/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9602  
Epoch 21812/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0309 - accuracy:  
0.9598  
Epoch 21813/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0315 - accuracy:  
0.9603  
Epoch 21814/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9591  
Epoch 21815/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9588  
Epoch 21816/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9603  
Epoch 21817/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9593  
Epoch 21818/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9596  
Epoch 21819/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9601  
Epoch 21820/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9588  
Epoch 21821/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0308 - accuracy:  
0.9602  
Epoch 21822/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9603  
Epoch 21823/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9602  
Epoch 21824/100000



2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9592  
Epoch 21825/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9603  
Epoch 21826/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9595  
Epoch 21827/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9587  
Epoch 21828/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9598  
Epoch 21829/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9594  
Epoch 21830/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0318 - accuracy:  
0.9599  
Epoch 21831/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9602  
Epoch 21832/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0329 - accuracy:  
0.9604  
Epoch 21833/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9596  
Epoch 21834/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9585  
Epoch 21835/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy:  
0.9602  
Epoch 21836/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9597  
Epoch 21837/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy:  
0.9599  
Epoch 21838/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9589  
Epoch 21839/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9597  
Epoch 21840/100000

2/2 [=====] - 0s 119ms/step - loss: 0.0309 - accuracy:  
0.9600  
Epoch 21841/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9598  
Epoch 21842/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9588  
Epoch 21843/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9600  
Epoch 21844/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0307 - accuracy:  
0.9592  
Epoch 21845/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9599  
Epoch 21846/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9592  
Epoch 21847/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9595  
Epoch 21848/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0305 - accuracy:  
0.9597  
Epoch 21849/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9593  
Epoch 21850/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9599  
Epoch 21851/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9600  
Epoch 21852/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9584  
Epoch 21853/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0310 - accuracy:  
0.9596  
Epoch 21854/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9607  
Epoch 21855/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0315 - accuracy:  
0.9601  
Epoch 21856/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9598  
Epoch 21857/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9598  
Epoch 21858/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0315 - accuracy:  
0.9601  
Epoch 21859/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9598  
Epoch 21860/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0319 - accuracy:  
0.9595  
Epoch 21861/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0310 - accuracy:  
0.9589  
Epoch 21862/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9592  
Epoch 21863/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9591  
Epoch 21864/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9597  
Epoch 21865/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9590  
Epoch 21866/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9589  
Epoch 21867/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9594  
Epoch 21868/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy:  
0.9604  
Epoch 21869/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9593  
Epoch 21870/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9594  
Epoch 21871/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9587  
Epoch 21872/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0314 - accuracy:  
0.9597  
Epoch 21873/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9599  
Epoch 21874/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0319 - accuracy:  
0.9601  
Epoch 21875/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9594  
Epoch 21876/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9593  
Epoch 21877/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9598  
Epoch 21878/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9590  
Epoch 21879/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0317 - accuracy:  
0.9603  
Epoch 21880/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9598  
Epoch 21881/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0335 - accuracy:  
0.9590  
Epoch 21882/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9587  
Epoch 21883/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9607  
Epoch 21884/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9601  
Epoch 21885/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9593  
Epoch 21886/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9606  
Epoch 21887/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0327 - accuracy:  
0.9601  
Epoch 21888/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9602  
Epoch 21889/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9592  
Epoch 21890/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9595  
Epoch 21891/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9605  
Epoch 21892/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0315 - accuracy:  
0.9602  
Epoch 21893/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9597  
Epoch 21894/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0329 - accuracy:  
0.9601  
Epoch 21895/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9600  
Epoch 21896/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9594  
Epoch 21897/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0317 - accuracy:  
0.9602  
Epoch 21898/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy:  
0.9601  
Epoch 21899/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9606  
Epoch 21900/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9597  
Epoch 21901/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0307 - accuracy:  
0.9597  
Epoch 21902/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0311 - accuracy:  
0.9596  
Epoch 21903/100000  
2/2 [=====] - 0s 129ms/step - loss: 0.0318 - accuracy:  
0.9599  
Epoch 21904/100000

2/2 [=====] - 0s 129ms/step - loss: 0.0313 - accuracy:  
0.9594  
Epoch 21905/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0313 - accuracy:  
0.9594  
Epoch 21906/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0309 - accuracy:  
0.9585  
Epoch 21907/100000  
2/2 [=====] - 0s 140ms/step - loss: 0.0314 - accuracy:  
0.9596  
Epoch 21908/100000  
2/2 [=====] - 0s 130ms/step - loss: 0.0313 - accuracy:  
0.9594  
Epoch 21909/100000  
2/2 [=====] - 0s 126ms/step - loss: 0.0316 - accuracy:  
0.9599  
Epoch 21910/100000  
2/2 [=====] - 0s 128ms/step - loss: 0.0311 - accuracy:  
0.9588  
Epoch 21911/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy:  
0.9593  
Epoch 21912/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9599  
Epoch 21913/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0314 - accuracy:  
0.9594  
Epoch 21914/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9589  
Epoch 21915/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9607  
Epoch 21916/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9595  
Epoch 21917/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9592  
Epoch 21918/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9601  
Epoch 21919/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0314 - accuracy:  
0.9592  
Epoch 21920/100000

2/2 [=====] - 0s 119ms/step - loss: 0.0308 - accuracy:  
0.9605  
Epoch 21921/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9590  
Epoch 21922/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0319 - accuracy:  
0.9602  
Epoch 21923/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0317 - accuracy:  
0.9599  
Epoch 21924/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9589  
Epoch 21925/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9594  
Epoch 21926/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9598  
Epoch 21927/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9602  
Epoch 21928/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9602  
Epoch 21929/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9588  
Epoch 21930/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9592  
Epoch 21931/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9601  
Epoch 21932/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9595  
Epoch 21933/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9599  
Epoch 21934/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9601  
Epoch 21935/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9592  
Epoch 21936/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy: 0.9606  
Epoch 21937/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9594  
Epoch 21938/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9597  
Epoch 21939/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9599  
Epoch 21940/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9602  
Epoch 21941/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy: 0.9593  
Epoch 21942/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy: 0.9600  
Epoch 21943/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0305 - accuracy: 0.9592  
Epoch 21944/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9592  
Epoch 21945/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9599  
Epoch 21946/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0304 - accuracy: 0.9595  
Epoch 21947/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0303 - accuracy: 0.9601  
Epoch 21948/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy: 0.9589  
Epoch 21949/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9604  
Epoch 21950/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0304 - accuracy: 0.9596  
Epoch 21951/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy: 0.9594  
Epoch 21952/100000



2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy: 0.9604  
Epoch 21953/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9601  
Epoch 21954/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0305 - accuracy: 0.9590  
Epoch 21955/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9610  
Epoch 21956/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy: 0.9596  
Epoch 21957/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy: 0.9595  
Epoch 21958/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy: 0.9584  
Epoch 21959/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9594  
Epoch 21960/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0316 - accuracy: 0.9596  
Epoch 21961/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9602  
Epoch 21962/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy: 0.9594  
Epoch 21963/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9594  
Epoch 21964/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy: 0.9594  
Epoch 21965/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy: 0.9598  
Epoch 21966/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy: 0.9589  
Epoch 21967/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy: 0.9606  
Epoch 21968/100000

2/2 [=====] - 0s 119ms/step - loss: 0.0305 - accuracy:  
0.9594  
Epoch 21969/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0307 - accuracy:  
0.9595  
Epoch 21970/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0307 - accuracy:  
0.9597  
Epoch 21971/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0305 - accuracy:  
0.9600  
Epoch 21972/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9596  
Epoch 21973/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9599  
Epoch 21974/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9592  
Epoch 21975/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9593  
Epoch 21976/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9597  
Epoch 21977/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9608  
Epoch 21978/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0328 - accuracy:  
0.9605  
Epoch 21979/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9590  
Epoch 21980/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy:  
0.9604  
Epoch 21981/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9598  
Epoch 21982/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9599  
Epoch 21983/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9591  
Epoch 21984/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0310 - accuracy:  
0.9592  
Epoch 21985/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9593  
Epoch 21986/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9594  
Epoch 21987/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9589  
Epoch 21988/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9601  
Epoch 21989/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9586  
Epoch 21990/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9596  
Epoch 21991/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy:  
0.9597  
Epoch 21992/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9592  
Epoch 21993/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9600  
Epoch 21994/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9592  
Epoch 21995/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9594  
Epoch 21996/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9591  
Epoch 21997/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9593  
Epoch 21998/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9593  
Epoch 21999/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9600  
Epoch 22000/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy: 0.9595  
Epoch 22001/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0310 - accuracy: 0.9595  
Epoch 22002/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0315 - accuracy: 0.9596  
Epoch 22003/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0323 - accuracy: 0.9595  
Epoch 22004/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9599  
Epoch 22005/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy: 0.9599  
Epoch 22006/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0307 - accuracy: 0.9592  
Epoch 22007/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy: 0.9594  
Epoch 22008/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9596  
Epoch 22009/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy: 0.9596  
Epoch 22010/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9599  
Epoch 22011/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0304 - accuracy: 0.9595  
Epoch 22012/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0315 - accuracy: 0.9595  
Epoch 22013/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy: 0.9597  
Epoch 22014/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9600  
Epoch 22015/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0307 - accuracy: 0.9595  
Epoch 22016/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9599  
Epoch 22017/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9598  
Epoch 22018/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0307 - accuracy:  
0.9602  
Epoch 22019/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9590  
Epoch 22020/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9589  
Epoch 22021/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0310 - accuracy:  
0.9595  
Epoch 22022/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9594  
Epoch 22023/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9587  
Epoch 22024/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9601  
Epoch 22025/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9590  
Epoch 22026/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9595  
Epoch 22027/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9592  
Epoch 22028/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9602  
Epoch 22029/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0307 - accuracy:  
0.9593  
Epoch 22030/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9604  
Epoch 22031/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9591  
Epoch 22032/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy: 0.9592  
Epoch 22033/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9602  
Epoch 22034/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy: 0.9598  
Epoch 22035/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy: 0.9600  
Epoch 22036/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy: 0.9599  
Epoch 22037/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9597  
Epoch 22038/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0305 - accuracy: 0.9600  
Epoch 22039/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9591  
Epoch 22040/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy: 0.9601  
Epoch 22041/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy: 0.9601  
Epoch 22042/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9591  
Epoch 22043/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy: 0.9592  
Epoch 22044/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy: 0.9605  
Epoch 22045/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy: 0.9609  
Epoch 22046/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0318 - accuracy: 0.9604  
Epoch 22047/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy: 0.9598  
Epoch 22048/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9598  
Epoch 22049/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0305 - accuracy:  
0.9596  
Epoch 22050/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy:  
0.9591  
Epoch 22051/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9602  
Epoch 22052/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9599  
Epoch 22053/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9588  
Epoch 22054/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9596  
Epoch 22055/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9597  
Epoch 22056/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9604  
Epoch 22057/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0304 - accuracy:  
0.9594  
Epoch 22058/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9592  
Epoch 22059/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9599  
Epoch 22060/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9595  
Epoch 22061/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0313 - accuracy:  
0.9597  
Epoch 22062/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9597  
Epoch 22063/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy:  
0.9597  
Epoch 22064/100000

2/2 [=====] - 0s 119ms/step - loss: 0.0301 - accuracy:  
0.9596  
Epoch 22065/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9592  
Epoch 22066/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9602  
Epoch 22067/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9591  
Epoch 22068/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0305 - accuracy:  
0.9597  
Epoch 22069/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9600  
Epoch 22070/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0312 - accuracy:  
0.9586  
Epoch 22071/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9589  
Epoch 22072/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy:  
0.9596  
Epoch 22073/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9597  
Epoch 22074/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9598  
Epoch 22075/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9599  
Epoch 22076/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9604  
Epoch 22077/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9597  
Epoch 22078/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9592  
Epoch 22079/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9609  
Epoch 22080/100000



2/2 [=====] - 0s 124ms/step - loss: 0.0315 - accuracy:  
0.9592  
Epoch 22081/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9591  
Epoch 22082/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9590  
Epoch 22083/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9606  
Epoch 22084/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9595  
Epoch 22085/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0305 - accuracy:  
0.9593  
Epoch 22086/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9597  
Epoch 22087/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0311 - accuracy:  
0.9603  
Epoch 22088/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy:  
0.9595  
Epoch 22089/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9603  
Epoch 22090/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9595  
Epoch 22091/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9603  
Epoch 22092/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9595  
Epoch 22093/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9590  
Epoch 22094/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy:  
0.9596  
Epoch 22095/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9596  
Epoch 22096/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0311 - accuracy:  
0.9596  
Epoch 22097/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9593  
Epoch 22098/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9602  
Epoch 22099/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9598  
Epoch 22100/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9599  
Epoch 22101/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9598  
Epoch 22102/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9598  
Epoch 22103/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9595  
Epoch 22104/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0309 - accuracy:  
0.9600  
Epoch 22105/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9593  
Epoch 22106/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy:  
0.9593  
Epoch 22107/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9600  
Epoch 22108/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9597  
Epoch 22109/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9595  
Epoch 22110/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9597  
Epoch 22111/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9596  
Epoch 22112/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy: 0.9590  
Epoch 22113/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy: 0.9596  
Epoch 22114/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy: 0.9591  
Epoch 22115/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9586  
Epoch 22116/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy: 0.9598  
Epoch 22117/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy: 0.9597  
Epoch 22118/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy: 0.9588  
Epoch 22119/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy: 0.9593  
Epoch 22120/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9589  
Epoch 22121/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy: 0.9593  
Epoch 22122/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0308 - accuracy: 0.9596  
Epoch 22123/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy: 0.9609  
Epoch 22124/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9593  
Epoch 22125/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy: 0.9586  
Epoch 22126/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9607  
Epoch 22127/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy: 0.9591  
Epoch 22128/100000

2/2 [=====] - 0s 119ms/step - loss: 0.0311 - accuracy: 0.9603  
Epoch 22129/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy: 0.9600  
Epoch 22130/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0312 - accuracy: 0.9598  
Epoch 22131/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy: 0.9598  
Epoch 22132/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy: 0.9600  
Epoch 22133/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy: 0.9593  
Epoch 22134/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy: 0.9603  
Epoch 22135/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy: 0.9592  
Epoch 22136/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy: 0.9594  
Epoch 22137/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy: 0.9594  
Epoch 22138/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0318 - accuracy: 0.9601  
Epoch 22139/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9589  
Epoch 22140/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy: 0.9596  
Epoch 22141/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9592  
Epoch 22142/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0314 - accuracy: 0.9593  
Epoch 22143/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9600  
Epoch 22144/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy: 0.9598  
Epoch 22145/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9590  
Epoch 22146/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy: 0.9599  
Epoch 22147/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0309 - accuracy: 0.9602  
Epoch 22148/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy: 0.9599  
Epoch 22149/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9592  
Epoch 22150/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy: 0.9592  
Epoch 22151/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9605  
Epoch 22152/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy: 0.9608  
Epoch 22153/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9595  
Epoch 22154/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9603  
Epoch 22155/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9595  
Epoch 22156/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9588  
Epoch 22157/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9590  
Epoch 22158/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9605  
Epoch 22159/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9593  
Epoch 22160/100000

2/2 [=====] - 0s 113ms/step - loss: 0.0304 - accuracy: 0.9599  
Epoch 22161/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9591  
Epoch 22162/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy: 0.9593  
Epoch 22163/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0311 - accuracy: 0.9596  
Epoch 22164/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0303 - accuracy: 0.9599  
Epoch 22165/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9589  
Epoch 22166/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy: 0.9587  
Epoch 22167/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy: 0.9595  
Epoch 22168/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9597  
Epoch 22169/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9592  
Epoch 22170/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0312 - accuracy: 0.9601  
Epoch 22171/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy: 0.9597  
Epoch 22172/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0321 - accuracy: 0.9598  
Epoch 22173/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0304 - accuracy: 0.9591  
Epoch 22174/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9589  
Epoch 22175/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0327 - accuracy: 0.9592  
Epoch 22176/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9598  
Epoch 22177/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9586  
Epoch 22178/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9595  
Epoch 22179/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0320 - accuracy:  
0.9594  
Epoch 22180/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9590  
Epoch 22181/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9596  
Epoch 22182/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9600  
Epoch 22183/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9596  
Epoch 22184/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy:  
0.9598  
Epoch 22185/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9606  
Epoch 22186/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9595  
Epoch 22187/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0308 - accuracy:  
0.9601  
Epoch 22188/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0310 - accuracy:  
0.9598  
Epoch 22189/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0301 - accuracy:  
0.9584  
Epoch 22190/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9590  
Epoch 22191/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy:  
0.9596  
Epoch 22192/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9597  
Epoch 22193/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9584  
Epoch 22194/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9595  
Epoch 22195/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0307 - accuracy:  
0.9595  
Epoch 22196/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9600  
Epoch 22197/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9603  
Epoch 22198/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9597  
Epoch 22199/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9602  
Epoch 22200/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9602  
Epoch 22201/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9611  
Epoch 22202/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9614  
Epoch 22203/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9596  
Epoch 22204/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9594  
Epoch 22205/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9593  
Epoch 22206/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0324 - accuracy:  
0.9587  
Epoch 22207/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9594  
Epoch 22208/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9600  
Epoch 22209/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9601  
Epoch 22210/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy:  
0.9591  
Epoch 22211/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9599  
Epoch 22212/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0312 - accuracy:  
0.9599  
Epoch 22213/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9596  
Epoch 22214/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9589  
Epoch 22215/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9602  
Epoch 22216/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy:  
0.9595  
Epoch 22217/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0307 - accuracy:  
0.9592  
Epoch 22218/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9605  
Epoch 22219/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9596  
Epoch 22220/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0309 - accuracy:  
0.9591  
Epoch 22221/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0307 - accuracy:  
0.9601  
Epoch 22222/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9590  
Epoch 22223/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9604  
Epoch 22224/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9605  
Epoch 22225/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9603  
Epoch 22226/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9607  
Epoch 22227/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0313 - accuracy:  
0.9593  
Epoch 22228/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9594  
Epoch 22229/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9602  
Epoch 22230/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0310 - accuracy:  
0.9602  
Epoch 22231/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9604  
Epoch 22232/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0310 - accuracy:  
0.9591  
Epoch 22233/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0306 - accuracy:  
0.9593  
Epoch 22234/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9600  
Epoch 22235/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9592  
Epoch 22236/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9592  
Epoch 22237/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0311 - accuracy:  
0.9605  
Epoch 22238/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9597  
Epoch 22239/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9595  
Epoch 22240/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0317 - accuracy:  
0.9592  
Epoch 22241/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0317 - accuracy:  
0.9584  
Epoch 22242/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9602  
Epoch 22243/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9595  
Epoch 22244/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9594  
Epoch 22245/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9608  
Epoch 22246/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9589  
Epoch 22247/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9593  
Epoch 22248/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0314 - accuracy:  
0.9607  
Epoch 22249/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0308 - accuracy:  
0.9587  
Epoch 22250/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9605  
Epoch 22251/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0317 - accuracy:  
0.9598  
Epoch 22252/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9605  
Epoch 22253/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9599  
Epoch 22254/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0306 - accuracy:  
0.9593  
Epoch 22255/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9594  
Epoch 22256/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9588  
Epoch 22257/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9594  
Epoch 22258/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9598  
Epoch 22259/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9594  
Epoch 22260/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0307 - accuracy:  
0.9600  
Epoch 22261/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9597  
Epoch 22262/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9597  
Epoch 22263/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9590  
Epoch 22264/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9597  
Epoch 22265/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9606  
Epoch 22266/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9591  
Epoch 22267/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0306 - accuracy:  
0.9601  
Epoch 22268/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9587  
Epoch 22269/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0306 - accuracy:  
0.9597  
Epoch 22270/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy:  
0.9595  
Epoch 22271/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0311 - accuracy:  
0.9593  
Epoch 22272/100000

2/2 [=====] - 0s 113ms/step - loss: 0.0307 - accuracy:  
0.9595  
Epoch 22273/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9588  
Epoch 22274/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9594  
Epoch 22275/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9591  
Epoch 22276/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9592  
Epoch 22277/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9593  
Epoch 22278/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9596  
Epoch 22279/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0304 - accuracy:  
0.9590  
Epoch 22280/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0306 - accuracy:  
0.9596  
Epoch 22281/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9602  
Epoch 22282/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9597  
Epoch 22283/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0312 - accuracy:  
0.9596  
Epoch 22284/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9601  
Epoch 22285/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9594  
Epoch 22286/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9596  
Epoch 22287/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0316 - accuracy:  
0.9595  
Epoch 22288/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9594  
Epoch 22289/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy: 0.9586  
Epoch 22290/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0344 - accuracy: 0.9584  
Epoch 22291/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0328 - accuracy: 0.9609  
Epoch 22292/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy: 0.9606  
Epoch 22293/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9593  
Epoch 22294/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9596  
Epoch 22295/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0328 - accuracy: 0.9596  
Epoch 22296/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0325 - accuracy: 0.9598  
Epoch 22297/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy: 0.9602  
Epoch 22298/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy: 0.9593  
Epoch 22299/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9600  
Epoch 22300/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0320 - accuracy: 0.9590  
Epoch 22301/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0311 - accuracy: 0.9595  
Epoch 22302/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy: 0.9591  
Epoch 22303/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9592  
Epoch 22304/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy:  
0.9602  
Epoch 22305/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9587  
Epoch 22306/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9598  
Epoch 22307/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9606  
Epoch 22308/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9600  
Epoch 22309/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9607  
Epoch 22310/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy:  
0.9599  
Epoch 22311/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9603  
Epoch 22312/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9598  
Epoch 22313/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0311 - accuracy:  
0.9591  
Epoch 22314/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0309 - accuracy:  
0.9601  
Epoch 22315/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9593  
Epoch 22316/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0303 - accuracy:  
0.9592  
Epoch 22317/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9595  
Epoch 22318/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0310 - accuracy:  
0.9595  
Epoch 22319/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9599  
Epoch 22320/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9588  
Epoch 22321/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9589  
Epoch 22322/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9603  
Epoch 22323/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9600  
Epoch 22324/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9597  
Epoch 22325/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9593  
Epoch 22326/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9588  
Epoch 22327/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9603  
Epoch 22328/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9601  
Epoch 22329/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9604  
Epoch 22330/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0313 - accuracy:  
0.9602  
Epoch 22331/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9599  
Epoch 22332/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9599  
Epoch 22333/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9608  
Epoch 22334/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9599  
Epoch 22335/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9594  
Epoch 22336/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9606  
Epoch 22337/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9601  
Epoch 22338/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9589  
Epoch 22339/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy: 0.9601  
Epoch 22340/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9593  
Epoch 22341/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy: 0.9598  
Epoch 22342/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9600  
Epoch 22343/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9588  
Epoch 22344/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy: 0.9593  
Epoch 22345/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy: 0.9602  
Epoch 22346/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy: 0.9601  
Epoch 22347/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy: 0.9596  
Epoch 22348/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy: 0.9593  
Epoch 22349/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0331 - accuracy: 0.9598  
Epoch 22350/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0327 - accuracy: 0.9602  
Epoch 22351/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy: 0.9598  
Epoch 22352/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy: 0.9602  
Epoch 22353/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0321 - accuracy: 0.9597  
Epoch 22354/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy: 0.9599  
Epoch 22355/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0323 - accuracy: 0.9586  
Epoch 22356/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0319 - accuracy: 0.9586  
Epoch 22357/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0316 - accuracy: 0.9592  
Epoch 22358/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy: 0.9598  
Epoch 22359/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy: 0.9604  
Epoch 22360/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0320 - accuracy: 0.9585  
Epoch 22361/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0321 - accuracy: 0.9598  
Epoch 22362/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy: 0.9603  
Epoch 22363/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy: 0.9602  
Epoch 22364/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0312 - accuracy: 0.9602  
Epoch 22365/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0311 - accuracy: 0.9599  
Epoch 22366/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9592  
Epoch 22367/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy: 0.9599  
Epoch 22368/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9598  
Epoch 22369/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0311 - accuracy:  
0.9607  
Epoch 22370/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9599  
Epoch 22371/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9603  
Epoch 22372/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9603  
Epoch 22373/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0306 - accuracy:  
0.9591  
Epoch 22374/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9598  
Epoch 22375/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0311 - accuracy:  
0.9601  
Epoch 22376/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9599  
Epoch 22377/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9600  
Epoch 22378/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy:  
0.9600  
Epoch 22379/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9590  
Epoch 22380/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9596  
Epoch 22381/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9599  
Epoch 22382/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9595  
Epoch 22383/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0305 - accuracy:  
0.9593  
Epoch 22384/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9586  
Epoch 22385/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0307 - accuracy:  
0.9601  
Epoch 22386/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0304 - accuracy:  
0.9590  
Epoch 22387/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9592  
Epoch 22388/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9608  
Epoch 22389/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9598  
Epoch 22390/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9594  
Epoch 22391/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9594  
Epoch 22392/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9603  
Epoch 22393/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0315 - accuracy:  
0.9599  
Epoch 22394/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9604  
Epoch 22395/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0306 - accuracy:  
0.9591  
Epoch 22396/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9593  
Epoch 22397/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9595  
Epoch 22398/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9593  
Epoch 22399/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9604  
Epoch 22400/100000

2/2 [=====] - 0s 120ms/step - loss: 0.0310 - accuracy:  
0.9596  
Epoch 22401/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9595  
Epoch 22402/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9593  
Epoch 22403/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9601  
Epoch 22404/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9601  
Epoch 22405/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0317 - accuracy:  
0.9601  
Epoch 22406/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9601  
Epoch 22407/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9601  
Epoch 22408/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9592  
Epoch 22409/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9601  
Epoch 22410/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9598  
Epoch 22411/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9598  
Epoch 22412/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9596  
Epoch 22413/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9604  
Epoch 22414/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9595  
Epoch 22415/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9597  
Epoch 22416/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9595  
Epoch 22417/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9593  
Epoch 22418/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9604  
Epoch 22419/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9600  
Epoch 22420/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9601  
Epoch 22421/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9599  
Epoch 22422/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9602  
Epoch 22423/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9601  
Epoch 22424/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0309 - accuracy:  
0.9603  
Epoch 22425/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9593  
Epoch 22426/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9608  
Epoch 22427/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9597  
Epoch 22428/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9600  
Epoch 22429/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9587  
Epoch 22430/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9596  
Epoch 22431/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9597  
Epoch 22432/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0312 - accuracy:  
0.9595  
Epoch 22433/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9607  
Epoch 22434/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0317 - accuracy:  
0.9601  
Epoch 22435/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0313 - accuracy:  
0.9607  
Epoch 22436/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9595  
Epoch 22437/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9599  
Epoch 22438/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9600  
Epoch 22439/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9599  
Epoch 22440/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9588  
Epoch 22441/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9592  
Epoch 22442/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9595  
Epoch 22443/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9597  
Epoch 22444/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0302 - accuracy:  
0.9600  
Epoch 22445/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9602  
Epoch 22446/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9589  
Epoch 22447/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9606  
Epoch 22448/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0310 - accuracy: 0.9596  
Epoch 22449/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9594  
Epoch 22450/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy: 0.9591  
Epoch 22451/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9593  
Epoch 22452/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9590  
Epoch 22453/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy: 0.9590  
Epoch 22454/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy: 0.9599  
Epoch 22455/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy: 0.9596  
Epoch 22456/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9601  
Epoch 22457/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy: 0.9592  
Epoch 22458/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0300 - accuracy: 0.9595  
Epoch 22459/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy: 0.9594  
Epoch 22460/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0307 - accuracy: 0.9595  
Epoch 22461/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy: 0.9596  
Epoch 22462/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0325 - accuracy: 0.9588  
Epoch 22463/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy: 0.9596  
Epoch 22464/100000



2/2 [=====] - 0s 120ms/step - loss: 0.0322 - accuracy:  
0.9601  
Epoch 22465/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0320 - accuracy:  
0.9594  
Epoch 22466/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9604  
Epoch 22467/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0313 - accuracy:  
0.9586  
Epoch 22468/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9602  
Epoch 22469/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9597  
Epoch 22470/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9600  
Epoch 22471/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9590  
Epoch 22472/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9599  
Epoch 22473/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9597  
Epoch 22474/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9597  
Epoch 22475/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9588  
Epoch 22476/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9600  
Epoch 22477/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0304 - accuracy:  
0.9596  
Epoch 22478/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9599  
Epoch 22479/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9595  
Epoch 22480/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9602  
Epoch 22481/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9606  
Epoch 22482/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9596  
Epoch 22483/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy:  
0.9596  
Epoch 22484/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0311 - accuracy:  
0.9593  
Epoch 22485/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9602  
Epoch 22486/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9599  
Epoch 22487/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9593  
Epoch 22488/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9598  
Epoch 22489/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9601  
Epoch 22490/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9597  
Epoch 22491/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy:  
0.9606  
Epoch 22492/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9607  
Epoch 22493/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy:  
0.9592  
Epoch 22494/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9601  
Epoch 22495/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9599  
Epoch 22496/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy:  
0.9599  
Epoch 22497/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9598  
Epoch 22498/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9608  
Epoch 22499/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9602  
Epoch 22500/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0329 - accuracy:  
0.9603  
Epoch 22501/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9601  
Epoch 22502/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9596  
Epoch 22503/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9591  
Epoch 22504/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9601  
Epoch 22505/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0304 - accuracy:  
0.9597  
Epoch 22506/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9602  
Epoch 22507/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9604  
Epoch 22508/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9587  
Epoch 22509/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9597  
Epoch 22510/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9591  
Epoch 22511/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9599  
Epoch 22512/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9600  
 Epoch 22513/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0309 - accuracy: 0.9596  
 Epoch 22514/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy: 0.9587  
 Epoch 22515/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy: 0.9598  
 Epoch 22516/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy: 0.9607  
 Epoch 22517/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy: 0.9593  
 Epoch 22518/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9597  
 Epoch 22519/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9597  
 Epoch 22520/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9601  
 Epoch 22521/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy: 0.9602  
 Epoch 22522/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9593  
 Epoch 22523/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy: 0.9599  
 Epoch 22524/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy: 0.9606  
 Epoch 22525/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9589  
 Epoch 22526/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0313 - accuracy: 0.9605  
 Epoch 22527/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy: 0.9606  
 Epoch 22528/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9598  
Epoch 22529/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9594  
Epoch 22530/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9586  
Epoch 22531/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9595  
Epoch 22532/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9593  
Epoch 22533/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9607  
Epoch 22534/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9594  
Epoch 22535/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9604  
Epoch 22536/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0302 - accuracy:  
0.9594  
Epoch 22537/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0302 - accuracy:  
0.9598  
Epoch 22538/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9595  
Epoch 22539/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9594  
Epoch 22540/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9602  
Epoch 22541/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy:  
0.9598  
Epoch 22542/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9600  
Epoch 22543/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9596  
Epoch 22544/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
 0.9599  
 Epoch 22545/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
 0.9600  
 Epoch 22546/100000  
 2/2 [=====] - 0s 124ms/step - loss: 0.0305 - accuracy:  
 0.9585  
 Epoch 22547/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
 0.9597  
 Epoch 22548/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
 0.9593  
 Epoch 22549/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
 0.9599  
 Epoch 22550/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
 0.9605  
 Epoch 22551/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
 0.9585  
 Epoch 22552/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0329 - accuracy:  
 0.9598  
 Epoch 22553/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
 0.9600  
 Epoch 22554/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
 0.9599  
 Epoch 22555/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0334 - accuracy:  
 0.9600  
 Epoch 22556/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
 0.9594  
 Epoch 22557/100000  
 2/2 [=====] - 0s 120ms/step - loss: 0.0308 - accuracy:  
 0.9597  
 Epoch 22558/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
 0.9594  
 Epoch 22559/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
 0.9597  
 Epoch 22560/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy: 0.9597  
 Epoch 22561/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy: 0.9590  
 Epoch 22562/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy: 0.9597  
 Epoch 22563/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy: 0.9602  
 Epoch 22564/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy: 0.9600  
 Epoch 22565/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0324 - accuracy: 0.9601  
 Epoch 22566/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9591  
 Epoch 22567/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy: 0.9599  
 Epoch 22568/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy: 0.9586  
 Epoch 22569/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9593  
 Epoch 22570/100000  
 2/2 [=====] - 0s 120ms/step - loss: 0.0308 - accuracy: 0.9598  
 Epoch 22571/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9588  
 Epoch 22572/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy: 0.9591  
 Epoch 22573/100000  
 2/2 [=====] - 0s 123ms/step - loss: 0.0309 - accuracy: 0.9590  
 Epoch 22574/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy: 0.9598  
 Epoch 22575/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0303 - accuracy: 0.9588  
 Epoch 22576/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9588  
Epoch 22577/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9596  
Epoch 22578/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0312 - accuracy:  
0.9605  
Epoch 22579/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9595  
Epoch 22580/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9595  
Epoch 22581/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0313 - accuracy:  
0.9601  
Epoch 22582/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9594  
Epoch 22583/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9604  
Epoch 22584/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9600  
Epoch 22585/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9595  
Epoch 22586/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9595  
Epoch 22587/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9589  
Epoch 22588/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9592  
Epoch 22589/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9601  
Epoch 22590/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9591  
Epoch 22591/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0311 - accuracy:  
0.9598  
Epoch 22592/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9598  
Epoch 22593/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9597  
Epoch 22594/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0308 - accuracy: 0.9596  
Epoch 22595/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy: 0.9594  
Epoch 22596/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy: 0.9591  
Epoch 22597/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0314 - accuracy: 0.9592  
Epoch 22598/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy: 0.9598  
Epoch 22599/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9599  
Epoch 22600/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy: 0.9593  
Epoch 22601/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy: 0.9600  
Epoch 22602/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy: 0.9596  
Epoch 22603/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy: 0.9612  
Epoch 22604/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0312 - accuracy: 0.9604  
Epoch 22605/100000  
2/2 [=====] - 0s 139ms/step - loss: 0.0313 - accuracy: 0.9594  
Epoch 22606/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0315 - accuracy: 0.9595  
Epoch 22607/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0306 - accuracy: 0.9591  
Epoch 22608/100000

2/2 [=====] - 0s 126ms/step - loss: 0.0311 - accuracy:  
0.9590  
Epoch 22609/100000  
2/2 [=====] - 0s 128ms/step - loss: 0.0319 - accuracy:  
0.9594  
Epoch 22610/100000  
2/2 [=====] - 0s 128ms/step - loss: 0.0309 - accuracy:  
0.9595  
Epoch 22611/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0305 - accuracy:  
0.9594  
Epoch 22612/100000  
2/2 [=====] - 0s 133ms/step - loss: 0.0310 - accuracy:  
0.9610  
Epoch 22613/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9609  
Epoch 22614/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9595  
Epoch 22615/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9593  
Epoch 22616/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9592  
Epoch 22617/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9595  
Epoch 22618/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9593  
Epoch 22619/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9602  
Epoch 22620/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9610  
Epoch 22621/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9601  
Epoch 22622/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9595  
Epoch 22623/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9592  
Epoch 22624/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9605  
Epoch 22625/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9601  
Epoch 22626/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9594  
Epoch 22627/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0314 - accuracy:  
0.9605  
Epoch 22628/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9596  
Epoch 22629/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9595  
Epoch 22630/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9600  
Epoch 22631/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9601  
Epoch 22632/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0305 - accuracy:  
0.9595  
Epoch 22633/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9598  
Epoch 22634/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9597  
Epoch 22635/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0312 - accuracy:  
0.9595  
Epoch 22636/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9596  
Epoch 22637/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0303 - accuracy:  
0.9597  
Epoch 22638/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0306 - accuracy:  
0.9591  
Epoch 22639/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9594  
Epoch 22640/100000

2/2 [=====] - 0s 121ms/step - loss: 0.0306 - accuracy: 0.9599  
Epoch 22641/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9592  
Epoch 22642/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy: 0.9598  
Epoch 22643/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9595  
Epoch 22644/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy: 0.9591  
Epoch 22645/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9588  
Epoch 22646/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy: 0.9593  
Epoch 22647/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy: 0.9582  
Epoch 22648/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy: 0.9593  
Epoch 22649/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy: 0.9598  
Epoch 22650/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0311 - accuracy: 0.9588  
Epoch 22651/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy: 0.9601  
Epoch 22652/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy: 0.9588  
Epoch 22653/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy: 0.9594  
Epoch 22654/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9597  
Epoch 22655/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy: 0.9592  
Epoch 22656/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9603  
Epoch 22657/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy:  
0.9593  
Epoch 22658/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9587  
Epoch 22659/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9597  
Epoch 22660/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9591  
Epoch 22661/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0320 - accuracy:  
0.9603  
Epoch 22662/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9590  
Epoch 22663/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0322 - accuracy:  
0.9590  
Epoch 22664/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9596  
Epoch 22665/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9599  
Epoch 22666/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9594  
Epoch 22667/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9595  
Epoch 22668/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9606  
Epoch 22669/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9597  
Epoch 22670/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0315 - accuracy:  
0.9601  
Epoch 22671/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9602  
Epoch 22672/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy: 0.9595  
Epoch 22673/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0331 - accuracy: 0.9591  
Epoch 22674/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy: 0.9598  
Epoch 22675/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy: 0.9599  
Epoch 22676/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0316 - accuracy: 0.9604  
Epoch 22677/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy: 0.9592  
Epoch 22678/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy: 0.9589  
Epoch 22679/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy: 0.9597  
Epoch 22680/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9598  
Epoch 22681/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy: 0.9596  
Epoch 22682/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9597  
Epoch 22683/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy: 0.9588  
Epoch 22684/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0311 - accuracy: 0.9600  
Epoch 22685/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9605  
Epoch 22686/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0312 - accuracy: 0.9590  
Epoch 22687/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy: 0.9584  
Epoch 22688/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
 0.9593  
 Epoch 22689/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
 0.9596  
 Epoch 22690/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
 0.9600  
 Epoch 22691/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
 0.9594  
 Epoch 22692/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
 0.9588  
 Epoch 22693/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
 0.9595  
 Epoch 22694/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
 0.9593  
 Epoch 22695/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
 0.9592  
 Epoch 22696/100000  
 2/2 [=====] - 0s 120ms/step - loss: 0.0307 - accuracy:  
 0.9589  
 Epoch 22697/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
 0.9594  
 Epoch 22698/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
 0.9589  
 Epoch 22699/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
 0.9596  
 Epoch 22700/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
 0.9604  
 Epoch 22701/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
 0.9597  
 Epoch 22702/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
 0.9589  
 Epoch 22703/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
 0.9594  
 Epoch 22704/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
 0.9588  
 Epoch 22705/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
 0.9593  
 Epoch 22706/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
 0.9599  
 Epoch 22707/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
 0.9610  
 Epoch 22708/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
 0.9598  
 Epoch 22709/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
 0.9594  
 Epoch 22710/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
 0.9593  
 Epoch 22711/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
 0.9591  
 Epoch 22712/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
 0.9588  
 Epoch 22713/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
 0.9596  
 Epoch 22714/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0316 - accuracy:  
 0.9601  
 Epoch 22715/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
 0.9601  
 Epoch 22716/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
 0.9589  
 Epoch 22717/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
 0.9600  
 Epoch 22718/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0320 - accuracy:  
 0.9605  
 Epoch 22719/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0314 - accuracy:  
 0.9597  
 Epoch 22720/100000



2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9598  
Epoch 22721/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0311 - accuracy:  
0.9601  
Epoch 22722/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9600  
Epoch 22723/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy:  
0.9598  
Epoch 22724/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9598  
Epoch 22725/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9599  
Epoch 22726/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0313 - accuracy:  
0.9591  
Epoch 22727/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9597  
Epoch 22728/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy:  
0.9599  
Epoch 22729/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9606  
Epoch 22730/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9594  
Epoch 22731/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0307 - accuracy:  
0.9601  
Epoch 22732/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9590  
Epoch 22733/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9589  
Epoch 22734/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0312 - accuracy:  
0.9599  
Epoch 22735/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9610  
Epoch 22736/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0309 - accuracy:  
 0.9591  
 Epoch 22737/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy:  
 0.9606  
 Epoch 22738/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
 0.9602  
 Epoch 22739/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
 0.9593  
 Epoch 22740/100000  
 2/2 [=====] - 0s 120ms/step - loss: 0.0306 - accuracy:  
 0.9595  
 Epoch 22741/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
 0.9598  
 Epoch 22742/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
 0.9593  
 Epoch 22743/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
 0.9591  
 Epoch 22744/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0310 - accuracy:  
 0.9607  
 Epoch 22745/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
 0.9593  
 Epoch 22746/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
 0.9590  
 Epoch 22747/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
 0.9599  
 Epoch 22748/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
 0.9603  
 Epoch 22749/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
 0.9587  
 Epoch 22750/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
 0.9601  
 Epoch 22751/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
 0.9596  
 Epoch 22752/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy: 0.9608  
 Epoch 22753/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy: 0.9600  
 Epoch 22754/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy: 0.9590  
 Epoch 22755/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy: 0.9591  
 Epoch 22756/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy: 0.9597  
 Epoch 22757/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9596  
 Epoch 22758/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9596  
 Epoch 22759/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0302 - accuracy: 0.9601  
 Epoch 22760/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy: 0.9600  
 Epoch 22761/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9603  
 Epoch 22762/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9594  
 Epoch 22763/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9598  
 Epoch 22764/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0301 - accuracy: 0.9598  
 Epoch 22765/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0305 - accuracy: 0.9604  
 Epoch 22766/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9598  
 Epoch 22767/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy: 0.9597  
 Epoch 22768/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9600  
Epoch 22769/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0308 - accuracy:  
0.9602  
Epoch 22770/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9590  
Epoch 22771/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9586  
Epoch 22772/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9596  
Epoch 22773/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9602  
Epoch 22774/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9587  
Epoch 22775/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9605  
Epoch 22776/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9594  
Epoch 22777/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9599  
Epoch 22778/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0304 - accuracy:  
0.9598  
Epoch 22779/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9596  
Epoch 22780/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9600  
Epoch 22781/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0302 - accuracy:  
0.9603  
Epoch 22782/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9593  
Epoch 22783/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9596  
Epoch 22784/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9590  
Epoch 22785/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9596  
Epoch 22786/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9595  
Epoch 22787/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9589  
Epoch 22788/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9592  
Epoch 22789/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9598  
Epoch 22790/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9589  
Epoch 22791/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0304 - accuracy:  
0.9596  
Epoch 22792/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9598  
Epoch 22793/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9593  
Epoch 22794/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy:  
0.9605  
Epoch 22795/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9588  
Epoch 22796/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9603  
Epoch 22797/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0306 - accuracy:  
0.9606  
Epoch 22798/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9587  
Epoch 22799/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9582  
Epoch 22800/100000

2/2 [=====] - 0s 121ms/step - loss: 0.0308 - accuracy: 0.9605  
Epoch 22801/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9599  
Epoch 22802/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy: 0.9597  
Epoch 22803/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy: 0.9590  
Epoch 22804/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy: 0.9600  
Epoch 22805/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy: 0.9600  
Epoch 22806/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9601  
Epoch 22807/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy: 0.9591  
Epoch 22808/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy: 0.9602  
Epoch 22809/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9590  
Epoch 22810/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9604  
Epoch 22811/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9592  
Epoch 22812/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9596  
Epoch 22813/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9591  
Epoch 22814/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy: 0.9611  
Epoch 22815/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9589  
Epoch 22816/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy: 0.9596  
Epoch 22817/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9599  
Epoch 22818/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9598  
Epoch 22819/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9602  
Epoch 22820/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9590  
Epoch 22821/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy: 0.9594  
Epoch 22822/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy: 0.9602  
Epoch 22823/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy: 0.9595  
Epoch 22824/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9600  
Epoch 22825/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9594  
Epoch 22826/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy: 0.9602  
Epoch 22827/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9607  
Epoch 22828/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9598  
Epoch 22829/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy: 0.9597  
Epoch 22830/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9600  
Epoch 22831/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy: 0.9601  
Epoch 22832/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy: 0.9598  
Epoch 22833/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy: 0.9595  
Epoch 22834/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy: 0.9591  
Epoch 22835/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9592  
Epoch 22836/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9595  
Epoch 22837/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0306 - accuracy: 0.9590  
Epoch 22838/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0308 - accuracy: 0.9601  
Epoch 22839/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9586  
Epoch 22840/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0314 - accuracy: 0.9603  
Epoch 22841/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy: 0.9597  
Epoch 22842/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy: 0.9600  
Epoch 22843/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0320 - accuracy: 0.9591  
Epoch 22844/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy: 0.9596  
Epoch 22845/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy: 0.9594  
Epoch 22846/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9599  
Epoch 22847/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9606  
Epoch 22848/100000



2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9598  
Epoch 22849/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9594  
Epoch 22850/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9600  
Epoch 22851/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9585  
Epoch 22852/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0306 - accuracy:  
0.9594  
Epoch 22853/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9595  
Epoch 22854/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9588  
Epoch 22855/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0308 - accuracy:  
0.9593  
Epoch 22856/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9599  
Epoch 22857/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9597  
Epoch 22858/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9592  
Epoch 22859/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0306 - accuracy:  
0.9599  
Epoch 22860/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9590  
Epoch 22861/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9584  
Epoch 22862/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9590  
Epoch 22863/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0310 - accuracy:  
0.9597  
Epoch 22864/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9596  
Epoch 22865/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9592  
Epoch 22866/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9593  
Epoch 22867/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9597  
Epoch 22868/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9593  
Epoch 22869/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0310 - accuracy:  
0.9601  
Epoch 22870/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9598  
Epoch 22871/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9594  
Epoch 22872/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9591  
Epoch 22873/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9599  
Epoch 22874/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9598  
Epoch 22875/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9592  
Epoch 22876/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9595  
Epoch 22877/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9596  
Epoch 22878/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9600  
Epoch 22879/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9604  
Epoch 22880/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9602  
Epoch 22881/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9601  
Epoch 22882/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9596  
Epoch 22883/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9593  
Epoch 22884/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9593  
Epoch 22885/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0317 - accuracy:  
0.9596  
Epoch 22886/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0305 - accuracy:  
0.9601  
Epoch 22887/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9596  
Epoch 22888/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0306 - accuracy:  
0.9600  
Epoch 22889/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0308 - accuracy:  
0.9592  
Epoch 22890/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9596  
Epoch 22891/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9599  
Epoch 22892/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9594  
Epoch 22893/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9590  
Epoch 22894/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0311 - accuracy:  
0.9610  
Epoch 22895/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9599  
Epoch 22896/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0304 - accuracy:  
0.9599  
Epoch 22897/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9599  
Epoch 22898/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9593  
Epoch 22899/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0308 - accuracy:  
0.9605  
Epoch 22900/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9595  
Epoch 22901/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9600  
Epoch 22902/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9600  
Epoch 22903/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9593  
Epoch 22904/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0317 - accuracy:  
0.9603  
Epoch 22905/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0311 - accuracy:  
0.9607  
Epoch 22906/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9590  
Epoch 22907/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9591  
Epoch 22908/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0327 - accuracy:  
0.9594  
Epoch 22909/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0314 - accuracy:  
0.9602  
Epoch 22910/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9608  
Epoch 22911/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9602  
Epoch 22912/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy: 0.9599  
 Epoch 22913/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy: 0.9604  
 Epoch 22914/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0310 - accuracy: 0.9588  
 Epoch 22915/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy: 0.9590  
 Epoch 22916/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy: 0.9597  
 Epoch 22917/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy: 0.9599  
 Epoch 22918/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy: 0.9604  
 Epoch 22919/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0314 - accuracy: 0.9593  
 Epoch 22920/100000  
 2/2 [=====] - 0s 120ms/step - loss: 0.0319 - accuracy: 0.9593  
 Epoch 22921/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy: 0.9595  
 Epoch 22922/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy: 0.9598  
 Epoch 22923/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0319 - accuracy: 0.9602  
 Epoch 22924/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0329 - accuracy: 0.9597  
 Epoch 22925/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy: 0.9603  
 Epoch 22926/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy: 0.9597  
 Epoch 22927/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy: 0.9595  
 Epoch 22928/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9593  
Epoch 22929/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9596  
Epoch 22930/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9591  
Epoch 22931/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0313 - accuracy:  
0.9599  
Epoch 22932/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9599  
Epoch 22933/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9601  
Epoch 22934/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9595  
Epoch 22935/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9598  
Epoch 22936/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0304 - accuracy:  
0.9588  
Epoch 22937/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9594  
Epoch 22938/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9592  
Epoch 22939/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0311 - accuracy:  
0.9594  
Epoch 22940/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9590  
Epoch 22941/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0313 - accuracy:  
0.9603  
Epoch 22942/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0313 - accuracy:  
0.9605  
Epoch 22943/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9601  
Epoch 22944/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0320 - accuracy:  
0.9601  
Epoch 22945/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0324 - accuracy:  
0.9602  
Epoch 22946/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9602  
Epoch 22947/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9594  
Epoch 22948/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy:  
0.9594  
Epoch 22949/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9598  
Epoch 22950/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9599  
Epoch 22951/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9603  
Epoch 22952/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0311 - accuracy:  
0.9607  
Epoch 22953/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9604  
Epoch 22954/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0312 - accuracy:  
0.9601  
Epoch 22955/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9595  
Epoch 22956/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9593  
Epoch 22957/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0300 - accuracy:  
0.9595  
Epoch 22958/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9590  
Epoch 22959/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0307 - accuracy:  
0.9596  
Epoch 22960/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9605  
Epoch 22961/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0310 - accuracy:  
0.9597  
Epoch 22962/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9590  
Epoch 22963/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0309 - accuracy:  
0.9592  
Epoch 22964/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9594  
Epoch 22965/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9595  
Epoch 22966/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0309 - accuracy:  
0.9598  
Epoch 22967/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9601  
Epoch 22968/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9587  
Epoch 22969/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0313 - accuracy:  
0.9597  
Epoch 22970/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0308 - accuracy:  
0.9598  
Epoch 22971/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0302 - accuracy:  
0.9588  
Epoch 22972/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9590  
Epoch 22973/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9607  
Epoch 22974/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9589  
Epoch 22975/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9601  
Epoch 22976/100000



2/2 [=====] - 0s 119ms/step - loss: 0.0310 - accuracy: 0.9597  
Epoch 22977/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9587  
Epoch 22978/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy: 0.9598  
Epoch 22979/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9595  
Epoch 22980/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy: 0.9589  
Epoch 22981/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9592  
Epoch 22982/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0324 - accuracy: 0.9596  
Epoch 22983/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy: 0.9599  
Epoch 22984/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy: 0.9591  
Epoch 22985/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9597  
Epoch 22986/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy: 0.9600  
Epoch 22987/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0314 - accuracy: 0.9585  
Epoch 22988/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0323 - accuracy: 0.9606  
Epoch 22989/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy: 0.9599  
Epoch 22990/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy: 0.9598  
Epoch 22991/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0323 - accuracy: 0.9594  
Epoch 22992/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy: 0.9598  
Epoch 22993/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0319 - accuracy: 0.9607  
Epoch 22994/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0310 - accuracy: 0.9596  
Epoch 22995/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy: 0.9590  
Epoch 22996/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9607  
Epoch 22997/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9590  
Epoch 22998/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy: 0.9600  
Epoch 22999/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9600  
Epoch 23000/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy: 0.9598  
Epoch 23001/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9598  
Epoch 23002/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy: 0.9593  
Epoch 23003/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy: 0.9598  
Epoch 23004/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9590  
Epoch 23005/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy: 0.9596  
Epoch 23006/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy: 0.9597  
Epoch 23007/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy: 0.9587  
Epoch 23008/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9602  
Epoch 23009/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9594  
Epoch 23010/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9600  
Epoch 23011/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0311 - accuracy:  
0.9610  
Epoch 23012/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9591  
Epoch 23013/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9599  
Epoch 23014/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9589  
Epoch 23015/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9601  
Epoch 23016/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0313 - accuracy:  
0.9601  
Epoch 23017/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy:  
0.9593  
Epoch 23018/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9604  
Epoch 23019/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9600  
Epoch 23020/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9599  
Epoch 23021/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0311 - accuracy:  
0.9604  
Epoch 23022/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9597  
Epoch 23023/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9599  
Epoch 23024/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9587  
Epoch 23025/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9605  
Epoch 23026/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9591  
Epoch 23027/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9589  
Epoch 23028/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0313 - accuracy:  
0.9600  
Epoch 23029/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0323 - accuracy:  
0.9603  
Epoch 23030/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0321 - accuracy:  
0.9589  
Epoch 23031/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9591  
Epoch 23032/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9593  
Epoch 23033/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9603  
Epoch 23034/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9598  
Epoch 23035/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9600  
Epoch 23036/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9593  
Epoch 23037/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9592  
Epoch 23038/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9594  
Epoch 23039/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy:  
0.9607  
Epoch 23040/100000

2/2 [=====] - 0s 122ms/step - loss: 0.0308 - accuracy:  
0.9605  
Epoch 23041/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9601  
Epoch 23042/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9612  
Epoch 23043/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9609  
Epoch 23044/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9605  
Epoch 23045/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0304 - accuracy:  
0.9592  
Epoch 23046/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9590  
Epoch 23047/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy:  
0.9594  
Epoch 23048/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0306 - accuracy:  
0.9602  
Epoch 23049/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9591  
Epoch 23050/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9593  
Epoch 23051/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9603  
Epoch 23052/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9594  
Epoch 23053/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9602  
Epoch 23054/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9582  
Epoch 23055/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9596  
Epoch 23056/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9591  
Epoch 23057/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9599  
Epoch 23058/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy:  
0.9600  
Epoch 23059/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy:  
0.9592  
Epoch 23060/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0310 - accuracy:  
0.9596  
Epoch 23061/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9595  
Epoch 23062/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9588  
Epoch 23063/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9595  
Epoch 23064/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0313 - accuracy:  
0.9598  
Epoch 23065/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9593  
Epoch 23066/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9593  
Epoch 23067/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy:  
0.9605  
Epoch 23068/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9594  
Epoch 23069/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9592  
Epoch 23070/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9593  
Epoch 23071/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0310 - accuracy:  
0.9596  
Epoch 23072/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0305 - accuracy:  
0.9602  
Epoch 23073/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9600  
Epoch 23074/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy:  
0.9593  
Epoch 23075/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9601  
Epoch 23076/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9605  
Epoch 23077/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0305 - accuracy:  
0.9591  
Epoch 23078/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9597  
Epoch 23079/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9595  
Epoch 23080/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9598  
Epoch 23081/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9598  
Epoch 23082/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9597  
Epoch 23083/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0314 - accuracy:  
0.9600  
Epoch 23084/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0303 - accuracy:  
0.9604  
Epoch 23085/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0311 - accuracy:  
0.9595  
Epoch 23086/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0312 - accuracy:  
0.9591  
Epoch 23087/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9596  
Epoch 23088/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9591  
Epoch 23089/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0310 - accuracy:  
0.9589  
Epoch 23090/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9603  
Epoch 23091/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9593  
Epoch 23092/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9599  
Epoch 23093/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9598  
Epoch 23094/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0327 - accuracy:  
0.9593  
Epoch 23095/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0337 - accuracy:  
0.9586  
Epoch 23096/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9587  
Epoch 23097/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9593  
Epoch 23098/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9596  
Epoch 23099/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9592  
Epoch 23100/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9590  
Epoch 23101/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0324 - accuracy:  
0.9588  
Epoch 23102/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9590  
Epoch 23103/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9604  
Epoch 23104/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9593  
Epoch 23105/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9592  
Epoch 23106/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy:  
0.9590  
Epoch 23107/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0316 - accuracy:  
0.9610  
Epoch 23108/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9599  
Epoch 23109/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9595  
Epoch 23110/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9599  
Epoch 23111/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0309 - accuracy:  
0.9592  
Epoch 23112/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9587  
Epoch 23113/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9599  
Epoch 23114/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0310 - accuracy:  
0.9599  
Epoch 23115/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9599  
Epoch 23116/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9587  
Epoch 23117/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0311 - accuracy:  
0.9595  
Epoch 23118/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0305 - accuracy:  
0.9598  
Epoch 23119/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9603  
Epoch 23120/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9595  
Epoch 23121/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9595  
Epoch 23122/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9598  
Epoch 23123/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9596  
Epoch 23124/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9601  
Epoch 23125/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9597  
Epoch 23126/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9596  
Epoch 23127/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9588  
Epoch 23128/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9595  
Epoch 23129/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9601  
Epoch 23130/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9603  
Epoch 23131/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9602  
Epoch 23132/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9585  
Epoch 23133/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9588  
Epoch 23134/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy:  
0.9602  
Epoch 23135/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9595  
Epoch 23136/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9599  
Epoch 23137/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9604  
Epoch 23138/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9601  
Epoch 23139/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0307 - accuracy:  
0.9593  
Epoch 23140/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9589  
Epoch 23141/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9596  
Epoch 23142/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9600  
Epoch 23143/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9596  
Epoch 23144/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9598  
Epoch 23145/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9600  
Epoch 23146/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy:  
0.9601  
Epoch 23147/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy:  
0.9597  
Epoch 23148/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9598  
Epoch 23149/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9593  
Epoch 23150/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0305 - accuracy:  
0.9598  
Epoch 23151/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9594  
Epoch 23152/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9589  
Epoch 23153/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9594  
Epoch 23154/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9594  
Epoch 23155/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9592  
Epoch 23156/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0310 - accuracy:  
0.9603  
Epoch 23157/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9603  
Epoch 23158/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9600  
Epoch 23159/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9601  
Epoch 23160/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0301 - accuracy:  
0.9581  
Epoch 23161/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0309 - accuracy:  
0.9602  
Epoch 23162/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9598  
Epoch 23163/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9593  
Epoch 23164/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9593  
Epoch 23165/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0313 - accuracy:  
0.9603  
Epoch 23166/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9588  
Epoch 23167/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9608  
Epoch 23168/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9601  
 Epoch 23169/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0324 - accuracy: 0.9598  
 Epoch 23170/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy: 0.9593  
 Epoch 23171/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy: 0.9593  
 Epoch 23172/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy: 0.9601  
 Epoch 23173/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9591  
 Epoch 23174/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9595  
 Epoch 23175/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9601  
 Epoch 23176/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0306 - accuracy: 0.9591  
 Epoch 23177/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9608  
 Epoch 23178/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy: 0.9586  
 Epoch 23179/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy: 0.9604  
 Epoch 23180/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy: 0.9587  
 Epoch 23181/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy: 0.9591  
 Epoch 23182/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy: 0.9596  
 Epoch 23183/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0315 - accuracy: 0.9593  
 Epoch 23184/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9589  
Epoch 23185/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy:  
0.9601  
Epoch 23186/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0307 - accuracy:  
0.9592  
Epoch 23187/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy:  
0.9596  
Epoch 23188/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9593  
Epoch 23189/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9597  
Epoch 23190/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9602  
Epoch 23191/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9601  
Epoch 23192/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9598  
Epoch 23193/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9597  
Epoch 23194/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy:  
0.9598  
Epoch 23195/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0305 - accuracy:  
0.9597  
Epoch 23196/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9597  
Epoch 23197/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9597  
Epoch 23198/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9597  
Epoch 23199/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9596  
Epoch 23200/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9603  
Epoch 23201/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9600  
Epoch 23202/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9591  
Epoch 23203/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9603  
Epoch 23204/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0313 - accuracy:  
0.9606  
Epoch 23205/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9596  
Epoch 23206/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0302 - accuracy:  
0.9602  
Epoch 23207/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0300 - accuracy:  
0.9589  
Epoch 23208/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9596  
Epoch 23209/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9591  
Epoch 23210/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9591  
Epoch 23211/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9611  
Epoch 23212/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9598  
Epoch 23213/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0312 - accuracy:  
0.9600  
Epoch 23214/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9611  
Epoch 23215/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0311 - accuracy:  
0.9591  
Epoch 23216/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0323 - accuracy:  
0.9594  
Epoch 23217/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0321 - accuracy:  
0.9593  
Epoch 23218/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9586  
Epoch 23219/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9594  
Epoch 23220/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0321 - accuracy:  
0.9592  
Epoch 23221/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy:  
0.9593  
Epoch 23222/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9590  
Epoch 23223/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9599  
Epoch 23224/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9597  
Epoch 23225/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0318 - accuracy:  
0.9600  
Epoch 23226/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9607  
Epoch 23227/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9600  
Epoch 23228/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9605  
Epoch 23229/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9593  
Epoch 23230/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9603  
Epoch 23231/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9603  
Epoch 23232/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9598  
Epoch 23233/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9596  
Epoch 23234/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9598  
Epoch 23235/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9595  
Epoch 23236/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9592  
Epoch 23237/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9606  
Epoch 23238/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9594  
Epoch 23239/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9588  
Epoch 23240/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9604  
Epoch 23241/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9592  
Epoch 23242/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9600  
Epoch 23243/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9596  
Epoch 23244/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9598  
Epoch 23245/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9604  
Epoch 23246/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0310 - accuracy:  
0.9599  
Epoch 23247/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9594  
Epoch 23248/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9592  
Epoch 23249/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9604  
Epoch 23250/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9594  
Epoch 23251/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9596  
Epoch 23252/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9600  
Epoch 23253/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9591  
Epoch 23254/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9591  
Epoch 23255/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9591  
Epoch 23256/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9600  
Epoch 23257/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9588  
Epoch 23258/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9596  
Epoch 23259/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9589  
Epoch 23260/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9602  
Epoch 23261/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9602  
Epoch 23262/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9593  
Epoch 23263/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9600  
Epoch 23264/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9602  
Epoch 23265/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9600  
Epoch 23266/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9588  
Epoch 23267/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9603  
Epoch 23268/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9603  
Epoch 23269/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9604  
Epoch 23270/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9586  
Epoch 23271/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9597  
Epoch 23272/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9593  
Epoch 23273/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9602  
Epoch 23274/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9594  
Epoch 23275/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0306 - accuracy:  
0.9595  
Epoch 23276/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9602  
Epoch 23277/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9601  
Epoch 23278/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9595  
Epoch 23279/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0312 - accuracy:  
0.9605  
Epoch 23280/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9599  
Epoch 23281/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0300 - accuracy:  
0.9602  
Epoch 23282/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9590  
Epoch 23283/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy:  
0.9601  
Epoch 23284/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9597  
Epoch 23285/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9590  
Epoch 23286/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy:  
0.9604  
Epoch 23287/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9590  
Epoch 23288/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0296 - accuracy:  
0.9587  
Epoch 23289/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9597  
Epoch 23290/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9604  
Epoch 23291/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0304 - accuracy:  
0.9601  
Epoch 23292/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9592  
Epoch 23293/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0304 - accuracy:  
0.9599  
Epoch 23294/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9592  
Epoch 23295/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9609  
Epoch 23296/100000

2/2 [=====] - 0s 120ms/step - loss: 0.0316 - accuracy:  
0.9600  
Epoch 23297/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9600  
Epoch 23298/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9594  
Epoch 23299/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9584  
Epoch 23300/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9592  
Epoch 23301/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9593  
Epoch 23302/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9601  
Epoch 23303/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9594  
Epoch 23304/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9598  
Epoch 23305/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9595  
Epoch 23306/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9590  
Epoch 23307/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9597  
Epoch 23308/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9596  
Epoch 23309/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9591  
Epoch 23310/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9584  
Epoch 23311/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9598  
Epoch 23312/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy: 0.9586  
 Epoch 23313/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0306 - accuracy: 0.9605  
 Epoch 23314/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy: 0.9597  
 Epoch 23315/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9602  
 Epoch 23316/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy: 0.9594  
 Epoch 23317/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy: 0.9594  
 Epoch 23318/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0307 - accuracy: 0.9605  
 Epoch 23319/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9605  
 Epoch 23320/100000  
 2/2 [=====] - 0s 122ms/step - loss: 0.0300 - accuracy: 0.9593  
 Epoch 23321/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9598  
 Epoch 23322/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy: 0.9595  
 Epoch 23323/100000  
 2/2 [=====] - 0s 120ms/step - loss: 0.0301 - accuracy: 0.9596  
 Epoch 23324/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0307 - accuracy: 0.9600  
 Epoch 23325/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0311 - accuracy: 0.9617  
 Epoch 23326/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy: 0.9602  
 Epoch 23327/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy: 0.9599  
 Epoch 23328/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9605  
Epoch 23329/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9587  
Epoch 23330/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9600  
Epoch 23331/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9593  
Epoch 23332/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9596  
Epoch 23333/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9607  
Epoch 23334/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0316 - accuracy:  
0.9589  
Epoch 23335/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0325 - accuracy:  
0.9610  
Epoch 23336/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9591  
Epoch 23337/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9589  
Epoch 23338/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0318 - accuracy:  
0.9592  
Epoch 23339/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0322 - accuracy:  
0.9596  
Epoch 23340/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9598  
Epoch 23341/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9594  
Epoch 23342/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0311 - accuracy:  
0.9597  
Epoch 23343/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9592  
Epoch 23344/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9596  
Epoch 23345/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9597  
Epoch 23346/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9590  
Epoch 23347/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9593  
Epoch 23348/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9592  
Epoch 23349/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9590  
Epoch 23350/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9605  
Epoch 23351/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0302 - accuracy:  
0.9590  
Epoch 23352/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9595  
Epoch 23353/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9593  
Epoch 23354/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0314 - accuracy:  
0.9601  
Epoch 23355/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0314 - accuracy:  
0.9597  
Epoch 23356/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9591  
Epoch 23357/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9601  
Epoch 23358/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9606  
Epoch 23359/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9588  
Epoch 23360/100000



2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
 0.9602  
 Epoch 23361/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
 0.9601  
 Epoch 23362/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
 0.9602  
 Epoch 23363/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
 0.9595  
 Epoch 23364/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy:  
 0.9596  
 Epoch 23365/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0309 - accuracy:  
 0.9593  
 Epoch 23366/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
 0.9595  
 Epoch 23367/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
 0.9591  
 Epoch 23368/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
 0.9597  
 Epoch 23369/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0306 - accuracy:  
 0.9605  
 Epoch 23370/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
 0.9590  
 Epoch 23371/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
 0.9588  
 Epoch 23372/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
 0.9596  
 Epoch 23373/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
 0.9596  
 Epoch 23374/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
 0.9597  
 Epoch 23375/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0313 - accuracy:  
 0.9601  
 Epoch 23376/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9589  
Epoch 23377/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9604  
Epoch 23378/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0312 - accuracy:  
0.9597  
Epoch 23379/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9594  
Epoch 23380/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9603  
Epoch 23381/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy:  
0.9607  
Epoch 23382/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0316 - accuracy:  
0.9597  
Epoch 23383/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9591  
Epoch 23384/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9593  
Epoch 23385/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9586  
Epoch 23386/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9605  
Epoch 23387/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0307 - accuracy:  
0.9603  
Epoch 23388/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9603  
Epoch 23389/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9594  
Epoch 23390/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9593  
Epoch 23391/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0311 - accuracy:  
0.9603  
Epoch 23392/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9599  
Epoch 23393/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9600  
Epoch 23394/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9603  
Epoch 23395/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9600  
Epoch 23396/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9591  
Epoch 23397/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9596  
Epoch 23398/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9593  
Epoch 23399/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0306 - accuracy:  
0.9602  
Epoch 23400/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9593  
Epoch 23401/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9599  
Epoch 23402/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9600  
Epoch 23403/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9598  
Epoch 23404/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9590  
Epoch 23405/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9601  
Epoch 23406/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9608  
Epoch 23407/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9603  
Epoch 23408/100000

2/2 [=====] - 0s 120ms/step - loss: 0.0307 - accuracy:  
0.9593  
Epoch 23409/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0314 - accuracy:  
0.9594  
Epoch 23410/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9589  
Epoch 23411/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9601  
Epoch 23412/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9591  
Epoch 23413/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9593  
Epoch 23414/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9596  
Epoch 23415/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9585  
Epoch 23416/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9599  
Epoch 23417/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9600  
Epoch 23418/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9594  
Epoch 23419/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9592  
Epoch 23420/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9595  
Epoch 23421/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9591  
Epoch 23422/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9602  
Epoch 23423/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9599  
Epoch 23424/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9593  
Epoch 23425/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0318 - accuracy:  
0.9606  
Epoch 23426/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy:  
0.9598  
Epoch 23427/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9600  
Epoch 23428/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9594  
Epoch 23429/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9592  
Epoch 23430/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9591  
Epoch 23431/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9595  
Epoch 23432/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9588  
Epoch 23433/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9601  
Epoch 23434/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9588  
Epoch 23435/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9598  
Epoch 23436/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9595  
Epoch 23437/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9602  
Epoch 23438/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9595  
Epoch 23439/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9598  
Epoch 23440/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0319 - accuracy:  
0.9602  
Epoch 23441/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9606  
Epoch 23442/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9592  
Epoch 23443/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9599  
Epoch 23444/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9598  
Epoch 23445/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9597  
Epoch 23446/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9587  
Epoch 23447/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9589  
Epoch 23448/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9590  
Epoch 23449/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9598  
Epoch 23450/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0306 - accuracy:  
0.9595  
Epoch 23451/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9597  
Epoch 23452/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9586  
Epoch 23453/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0309 - accuracy:  
0.9605  
Epoch 23454/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9593  
Epoch 23455/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9600  
Epoch 23456/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9600  
 Epoch 23457/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0309 - accuracy: 0.9597  
 Epoch 23458/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0309 - accuracy: 0.9598  
 Epoch 23459/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0309 - accuracy: 0.9594  
 Epoch 23460/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy: 0.9587  
 Epoch 23461/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy: 0.9598  
 Epoch 23462/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9599  
 Epoch 23463/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy: 0.9593  
 Epoch 23464/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy: 0.9599  
 Epoch 23465/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy: 0.9587  
 Epoch 23466/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0317 - accuracy: 0.9595  
 Epoch 23467/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy: 0.9600  
 Epoch 23468/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0327 - accuracy: 0.9600  
 Epoch 23469/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy: 0.9608  
 Epoch 23470/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy: 0.9601  
 Epoch 23471/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9588  
 Epoch 23472/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy: 0.9595  
Epoch 23473/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy: 0.9590  
Epoch 23474/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy: 0.9596  
Epoch 23475/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9597  
Epoch 23476/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9603  
Epoch 23477/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9604  
Epoch 23478/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy: 0.9603  
Epoch 23479/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9594  
Epoch 23480/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0319 - accuracy: 0.9597  
Epoch 23481/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9594  
Epoch 23482/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0326 - accuracy: 0.9591  
Epoch 23483/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0334 - accuracy: 0.9594  
Epoch 23484/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy: 0.9597  
Epoch 23485/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy: 0.9602  
Epoch 23486/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0305 - accuracy: 0.9595  
Epoch 23487/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9600  
Epoch 23488/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9594  
Epoch 23489/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9589  
Epoch 23490/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9589  
Epoch 23491/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9599  
Epoch 23492/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9592  
Epoch 23493/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9593  
Epoch 23494/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9600  
Epoch 23495/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9597  
Epoch 23496/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy:  
0.9594  
Epoch 23497/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0317 - accuracy:  
0.9588  
Epoch 23498/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9604  
Epoch 23499/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9600  
Epoch 23500/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9601  
Epoch 23501/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9597  
Epoch 23502/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9590  
Epoch 23503/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9596  
Epoch 23504/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy: 0.9597  
Epoch 23505/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9601  
Epoch 23506/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9606  
Epoch 23507/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy: 0.9597  
Epoch 23508/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9600  
Epoch 23509/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9599  
Epoch 23510/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy: 0.9599  
Epoch 23511/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0306 - accuracy: 0.9600  
Epoch 23512/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0305 - accuracy: 0.9601  
Epoch 23513/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy: 0.9601  
Epoch 23514/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy: 0.9588  
Epoch 23515/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy: 0.9597  
Epoch 23516/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy: 0.9591  
Epoch 23517/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0305 - accuracy: 0.9608  
Epoch 23518/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy: 0.9600  
Epoch 23519/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9593  
Epoch 23520/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9592  
Epoch 23521/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0305 - accuracy:  
0.9611  
Epoch 23522/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9593  
Epoch 23523/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9598  
Epoch 23524/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9599  
Epoch 23525/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9608  
Epoch 23526/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9600  
Epoch 23527/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0313 - accuracy:  
0.9605  
Epoch 23528/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0317 - accuracy:  
0.9599  
Epoch 23529/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9590  
Epoch 23530/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9602  
Epoch 23531/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9599  
Epoch 23532/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9589  
Epoch 23533/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9595  
Epoch 23534/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9600  
Epoch 23535/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9611  
Epoch 23536/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9593  
Epoch 23537/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9601  
Epoch 23538/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9593  
Epoch 23539/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9596  
Epoch 23540/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9602  
Epoch 23541/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9589  
Epoch 23542/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0308 - accuracy:  
0.9597  
Epoch 23543/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9603  
Epoch 23544/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9597  
Epoch 23545/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0312 - accuracy:  
0.9586  
Epoch 23546/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9600  
Epoch 23547/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9596  
Epoch 23548/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9596  
Epoch 23549/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0308 - accuracy:  
0.9599  
Epoch 23550/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0311 - accuracy:  
0.9596  
Epoch 23551/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9600  
Epoch 23552/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9597  
Epoch 23553/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9591  
Epoch 23554/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9597  
Epoch 23555/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9603  
Epoch 23556/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy: 0.9596  
Epoch 23557/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy: 0.9586  
Epoch 23558/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy: 0.9585  
Epoch 23559/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9600  
Epoch 23560/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy: 0.9598  
Epoch 23561/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0311 - accuracy: 0.9597  
Epoch 23562/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9600  
Epoch 23563/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9596  
Epoch 23564/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy: 0.9596  
Epoch 23565/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy: 0.9604  
Epoch 23566/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy: 0.9605  
Epoch 23567/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9605  
Epoch 23568/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9598  
Epoch 23569/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9601  
Epoch 23570/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9599  
Epoch 23571/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9602  
Epoch 23572/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9589  
Epoch 23573/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9592  
Epoch 23574/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy:  
0.9600  
Epoch 23575/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9603  
Epoch 23576/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy:  
0.9597  
Epoch 23577/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9597  
Epoch 23578/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9597  
Epoch 23579/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9609  
Epoch 23580/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9591  
Epoch 23581/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0305 - accuracy:  
0.9597  
Epoch 23582/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0302 - accuracy:  
0.9596  
Epoch 23583/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0297 - accuracy:  
0.9592  
Epoch 23584/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9600  
Epoch 23585/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0306 - accuracy:  
0.9591  
Epoch 23586/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9598  
Epoch 23587/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9596  
Epoch 23588/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9588  
Epoch 23589/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9601  
Epoch 23590/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9600  
Epoch 23591/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9595  
Epoch 23592/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9597  
Epoch 23593/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9592  
Epoch 23594/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9602  
Epoch 23595/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9598  
Epoch 23596/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9607  
Epoch 23597/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9604  
Epoch 23598/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9598  
Epoch 23599/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9596  
Epoch 23600/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9592  
Epoch 23601/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9600  
Epoch 23602/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9599  
Epoch 23603/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9593  
Epoch 23604/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9603  
Epoch 23605/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9603  
Epoch 23606/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9600  
Epoch 23607/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9605  
Epoch 23608/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9599  
Epoch 23609/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0314 - accuracy:  
0.9604  
Epoch 23610/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9597  
Epoch 23611/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy:  
0.9594  
Epoch 23612/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy:  
0.9594  
Epoch 23613/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0302 - accuracy:  
0.9599  
Epoch 23614/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9597  
Epoch 23615/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9587  
Epoch 23616/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9598  
Epoch 23617/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0316 - accuracy: 0.9599  
Epoch 23618/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy: 0.9605  
Epoch 23619/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy: 0.9597  
Epoch 23620/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy: 0.9594  
Epoch 23621/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy: 0.9589  
Epoch 23622/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy: 0.9594  
Epoch 23623/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9600  
Epoch 23624/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy: 0.9595  
Epoch 23625/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy: 0.9594  
Epoch 23626/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy: 0.9602  
Epoch 23627/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9601  
Epoch 23628/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9584  
Epoch 23629/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy: 0.9602  
Epoch 23630/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9592  
Epoch 23631/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0311 - accuracy: 0.9598  
Epoch 23632/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9591  
Epoch 23633/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9588  
Epoch 23634/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9600  
Epoch 23635/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9585  
Epoch 23636/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9591  
Epoch 23637/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9592  
Epoch 23638/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9608  
Epoch 23639/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9595  
Epoch 23640/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy:  
0.9595  
Epoch 23641/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0310 - accuracy:  
0.9608  
Epoch 23642/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9595  
Epoch 23643/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9587  
Epoch 23644/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9597  
Epoch 23645/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9603  
Epoch 23646/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0302 - accuracy:  
0.9594  
Epoch 23647/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9597  
Epoch 23648/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9593  
Epoch 23649/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0304 - accuracy:  
0.9598  
Epoch 23650/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9596  
Epoch 23651/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0319 - accuracy:  
0.9599  
Epoch 23652/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0309 - accuracy:  
0.9593  
Epoch 23653/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9601  
Epoch 23654/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9601  
Epoch 23655/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9597  
Epoch 23656/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy:  
0.9593  
Epoch 23657/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9599  
Epoch 23658/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9594  
Epoch 23659/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9599  
Epoch 23660/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9598  
Epoch 23661/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0304 - accuracy:  
0.9598  
Epoch 23662/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0300 - accuracy:  
0.9595  
Epoch 23663/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0304 - accuracy:  
0.9601  
Epoch 23664/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9588  
Epoch 23665/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0304 - accuracy:  
0.9594  
Epoch 23666/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9590  
Epoch 23667/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0307 - accuracy:  
0.9588  
Epoch 23668/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy:  
0.9598  
Epoch 23669/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9599  
Epoch 23670/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0305 - accuracy:  
0.9591  
Epoch 23671/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9598  
Epoch 23672/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0302 - accuracy:  
0.9604  
Epoch 23673/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9597  
Epoch 23674/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9596  
Epoch 23675/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9597  
Epoch 23676/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0308 - accuracy:  
0.9597  
Epoch 23677/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0301 - accuracy:  
0.9592  
Epoch 23678/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0307 - accuracy:  
0.9594  
Epoch 23679/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0303 - accuracy:  
0.9593  
Epoch 23680/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy: 0.9596  
Epoch 23681/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy: 0.9596  
Epoch 23682/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy: 0.9598  
Epoch 23683/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy: 0.9589  
Epoch 23684/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy: 0.9582  
Epoch 23685/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9594  
Epoch 23686/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy: 0.9589  
Epoch 23687/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9591  
Epoch 23688/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy: 0.9606  
Epoch 23689/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy: 0.9600  
Epoch 23690/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy: 0.9597  
Epoch 23691/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9590  
Epoch 23692/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy: 0.9590  
Epoch 23693/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9604  
Epoch 23694/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0300 - accuracy: 0.9592  
Epoch 23695/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy: 0.9595  
Epoch 23696/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9597  
Epoch 23697/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9592  
Epoch 23698/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9593  
Epoch 23699/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy:  
0.9597  
Epoch 23700/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0306 - accuracy:  
0.9590  
Epoch 23701/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9596  
Epoch 23702/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9596  
Epoch 23703/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9612  
Epoch 23704/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9586  
Epoch 23705/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9602  
Epoch 23706/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0311 - accuracy:  
0.9588  
Epoch 23707/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9610  
Epoch 23708/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9588  
Epoch 23709/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0308 - accuracy:  
0.9592  
Epoch 23710/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9590  
Epoch 23711/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9600  
Epoch 23712/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0308 - accuracy: 0.9594  
 Epoch 23713/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy: 0.9600  
 Epoch 23714/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy: 0.9601  
 Epoch 23715/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0306 - accuracy: 0.9594  
 Epoch 23716/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy: 0.9589  
 Epoch 23717/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9594  
 Epoch 23718/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy: 0.9593  
 Epoch 23719/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0314 - accuracy: 0.9600  
 Epoch 23720/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9592  
 Epoch 23721/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy: 0.9600  
 Epoch 23722/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0314 - accuracy: 0.9604  
 Epoch 23723/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0322 - accuracy: 0.9595  
 Epoch 23724/100000  
 2/2 [=====] - 0s 120ms/step - loss: 0.0322 - accuracy: 0.9592  
 Epoch 23725/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy: 0.9600  
 Epoch 23726/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy: 0.9599  
 Epoch 23727/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy: 0.9599  
 Epoch 23728/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9608  
Epoch 23729/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9598  
Epoch 23730/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9590  
Epoch 23731/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9599  
Epoch 23732/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9591  
Epoch 23733/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9592  
Epoch 23734/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9587  
Epoch 23735/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9614  
Epoch 23736/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9597  
Epoch 23737/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9598  
Epoch 23738/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9598  
Epoch 23739/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9595  
Epoch 23740/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9591  
Epoch 23741/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0315 - accuracy:  
0.9602  
Epoch 23742/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9588  
Epoch 23743/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy:  
0.9595  
Epoch 23744/100000



2/2 [=====] - 0s 118ms/step - loss: 0.0318 - accuracy: 0.9597  
Epoch 23745/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy: 0.9602  
Epoch 23746/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0313 - accuracy: 0.9601  
Epoch 23747/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9598  
Epoch 23748/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0302 - accuracy: 0.9592  
Epoch 23749/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy: 0.9594  
Epoch 23750/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9594  
Epoch 23751/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9597  
Epoch 23752/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0299 - accuracy: 0.9595  
Epoch 23753/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9591  
Epoch 23754/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9596  
Epoch 23755/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy: 0.9593  
Epoch 23756/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy: 0.9587  
Epoch 23757/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy: 0.9590  
Epoch 23758/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9587  
Epoch 23759/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy: 0.9600  
Epoch 23760/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0302 - accuracy:  
0.9582  
Epoch 23761/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0305 - accuracy:  
0.9611  
Epoch 23762/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9596  
Epoch 23763/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9603  
Epoch 23764/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9596  
Epoch 23765/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9597  
Epoch 23766/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9596  
Epoch 23767/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9591  
Epoch 23768/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9593  
Epoch 23769/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9599  
Epoch 23770/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0311 - accuracy:  
0.9602  
Epoch 23771/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy:  
0.9598  
Epoch 23772/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9583  
Epoch 23773/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9606  
Epoch 23774/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0317 - accuracy:  
0.9598  
Epoch 23775/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9593  
Epoch 23776/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9592  
Epoch 23777/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9604  
Epoch 23778/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9598  
Epoch 23779/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0305 - accuracy:  
0.9597  
Epoch 23780/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9596  
Epoch 23781/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9599  
Epoch 23782/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9604  
Epoch 23783/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9607  
Epoch 23784/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9599  
Epoch 23785/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9594  
Epoch 23786/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9597  
Epoch 23787/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9595  
Epoch 23788/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9596  
Epoch 23789/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9598  
Epoch 23790/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0309 - accuracy:  
0.9592  
Epoch 23791/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0301 - accuracy:  
0.9602  
Epoch 23792/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9600  
Epoch 23793/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9606  
Epoch 23794/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0307 - accuracy:  
0.9603  
Epoch 23795/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0310 - accuracy:  
0.9603  
Epoch 23796/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9602  
Epoch 23797/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9595  
Epoch 23798/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9600  
Epoch 23799/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9593  
Epoch 23800/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0305 - accuracy:  
0.9604  
Epoch 23801/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0306 - accuracy:  
0.9588  
Epoch 23802/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9604  
Epoch 23803/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9598  
Epoch 23804/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9593  
Epoch 23805/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9597  
Epoch 23806/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9600  
Epoch 23807/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0338 - accuracy:  
0.9592  
Epoch 23808/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9591  
Epoch 23809/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy:  
0.9585  
Epoch 23810/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9592  
Epoch 23811/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0314 - accuracy:  
0.9605  
Epoch 23812/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9582  
Epoch 23813/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0376 - accuracy:  
0.9585  
Epoch 23814/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0353 - accuracy:  
0.9589  
Epoch 23815/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0331 - accuracy:  
0.9592  
Epoch 23816/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9595  
Epoch 23817/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy:  
0.9599  
Epoch 23818/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9595  
Epoch 23819/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9594  
Epoch 23820/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9594  
Epoch 23821/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9595  
Epoch 23822/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9591  
Epoch 23823/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0321 - accuracy:  
0.9596  
Epoch 23824/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy: 0.9601  
Epoch 23825/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9596  
Epoch 23826/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9595  
Epoch 23827/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9602  
Epoch 23828/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0307 - accuracy: 0.9600  
Epoch 23829/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0316 - accuracy: 0.9600  
Epoch 23830/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9594  
Epoch 23831/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9604  
Epoch 23832/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9595  
Epoch 23833/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0305 - accuracy: 0.9594  
Epoch 23834/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9595  
Epoch 23835/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy: 0.9588  
Epoch 23836/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9589  
Epoch 23837/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0309 - accuracy: 0.9598  
Epoch 23838/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy: 0.9586  
Epoch 23839/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0310 - accuracy: 0.9598  
Epoch 23840/100000

2/2 [=====] - 0s 120ms/step - loss: 0.0310 - accuracy:  
0.9598  
Epoch 23841/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9603  
Epoch 23842/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9600  
Epoch 23843/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9596  
Epoch 23844/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9602  
Epoch 23845/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9592  
Epoch 23846/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9600  
Epoch 23847/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9603  
Epoch 23848/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9596  
Epoch 23849/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9595  
Epoch 23850/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9598  
Epoch 23851/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9602  
Epoch 23852/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0302 - accuracy:  
0.9595  
Epoch 23853/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9590  
Epoch 23854/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9604  
Epoch 23855/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9593  
Epoch 23856/100000

2/2 [=====] - 0s 122ms/step - loss: 0.0311 - accuracy:  
0.9602  
Epoch 23857/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0306 - accuracy:  
0.9604  
Epoch 23858/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9601  
Epoch 23859/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9593  
Epoch 23860/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9597  
Epoch 23861/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9583  
Epoch 23862/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9592  
Epoch 23863/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy:  
0.9602  
Epoch 23864/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy:  
0.9601  
Epoch 23865/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9590  
Epoch 23866/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9602  
Epoch 23867/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9594  
Epoch 23868/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9596  
Epoch 23869/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9599  
Epoch 23870/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0325 - accuracy:  
0.9593  
Epoch 23871/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0328 - accuracy:  
0.9598  
Epoch 23872/100000



2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9598  
Epoch 23873/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9604  
Epoch 23874/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9597  
Epoch 23875/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9592  
Epoch 23876/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0318 - accuracy:  
0.9592  
Epoch 23877/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9601  
Epoch 23878/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9594  
Epoch 23879/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy:  
0.9584  
Epoch 23880/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9597  
Epoch 23881/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0309 - accuracy:  
0.9591  
Epoch 23882/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9596  
Epoch 23883/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9595  
Epoch 23884/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0306 - accuracy:  
0.9601  
Epoch 23885/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0310 - accuracy:  
0.9599  
Epoch 23886/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9602  
Epoch 23887/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy:  
0.9592  
Epoch 23888/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
 0.9601  
 Epoch 23889/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
 0.9592  
 Epoch 23890/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy:  
 0.9603  
 Epoch 23891/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
 0.9601  
 Epoch 23892/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
 0.9595  
 Epoch 23893/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
 0.9591  
 Epoch 23894/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
 0.9606  
 Epoch 23895/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
 0.9590  
 Epoch 23896/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
 0.9607  
 Epoch 23897/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
 0.9597  
 Epoch 23898/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
 0.9592  
 Epoch 23899/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
 0.9589  
 Epoch 23900/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
 0.9601  
 Epoch 23901/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
 0.9593  
 Epoch 23902/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
 0.9599  
 Epoch 23903/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
 0.9603  
 Epoch 23904/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9593  
Epoch 23905/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9591  
Epoch 23906/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9599  
Epoch 23907/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9602  
Epoch 23908/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9585  
Epoch 23909/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0304 - accuracy:  
0.9609  
Epoch 23910/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9594  
Epoch 23911/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9601  
Epoch 23912/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0302 - accuracy:  
0.9588  
Epoch 23913/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9594  
Epoch 23914/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9600  
Epoch 23915/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9596  
Epoch 23916/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9599  
Epoch 23917/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9602  
Epoch 23918/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9596  
Epoch 23919/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9590  
Epoch 23920/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9594  
Epoch 23921/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy: 0.9600  
Epoch 23922/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9596  
Epoch 23923/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy: 0.9592  
Epoch 23924/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy: 0.9597  
Epoch 23925/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9597  
Epoch 23926/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9599  
Epoch 23927/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0307 - accuracy: 0.9599  
Epoch 23928/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy: 0.9600  
Epoch 23929/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy: 0.9597  
Epoch 23930/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0311 - accuracy: 0.9590  
Epoch 23931/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9586  
Epoch 23932/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy: 0.9594  
Epoch 23933/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0321 - accuracy: 0.9603  
Epoch 23934/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0327 - accuracy: 0.9593  
Epoch 23935/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy: 0.9602  
Epoch 23936/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9587  
Epoch 23937/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9598  
Epoch 23938/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0335 - accuracy:  
0.9596  
Epoch 23939/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9595  
Epoch 23940/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9598  
Epoch 23941/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9605  
Epoch 23942/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9598  
Epoch 23943/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0316 - accuracy:  
0.9586  
Epoch 23944/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9594  
Epoch 23945/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9594  
Epoch 23946/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0315 - accuracy:  
0.9580  
Epoch 23947/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9590  
Epoch 23948/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9595  
Epoch 23949/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9603  
Epoch 23950/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9597  
Epoch 23951/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9600  
Epoch 23952/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9586  
Epoch 23953/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9599  
Epoch 23954/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9588  
Epoch 23955/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9603  
Epoch 23956/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9600  
Epoch 23957/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9592  
Epoch 23958/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9600  
Epoch 23959/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9594  
Epoch 23960/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9598  
Epoch 23961/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0306 - accuracy:  
0.9605  
Epoch 23962/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9604  
Epoch 23963/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9600  
Epoch 23964/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9601  
Epoch 23965/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0302 - accuracy:  
0.9601  
Epoch 23966/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9591  
Epoch 23967/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9602  
Epoch 23968/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9591  
Epoch 23969/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9600  
Epoch 23970/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9599  
Epoch 23971/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9597  
Epoch 23972/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0307 - accuracy:  
0.9595  
Epoch 23973/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9598  
Epoch 23974/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9591  
Epoch 23975/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9593  
Epoch 23976/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9592  
Epoch 23977/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9590  
Epoch 23978/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0304 - accuracy:  
0.9595  
Epoch 23979/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9596  
Epoch 23980/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0301 - accuracy:  
0.9590  
Epoch 23981/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9587  
Epoch 23982/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9600  
Epoch 23983/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9591  
Epoch 23984/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0302 - accuracy: 0.9592  
 Epoch 23985/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9602  
 Epoch 23986/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy: 0.9593  
 Epoch 23987/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy: 0.9598  
 Epoch 23988/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy: 0.9593  
 Epoch 23989/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9600  
 Epoch 23990/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy: 0.9599  
 Epoch 23991/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy: 0.9588  
 Epoch 23992/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0316 - accuracy: 0.9596  
 Epoch 23993/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy: 0.9594  
 Epoch 23994/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9591  
 Epoch 23995/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9592  
 Epoch 23996/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9610  
 Epoch 23997/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9602  
 Epoch 23998/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9595  
 Epoch 23999/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9589  
 Epoch 24000/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9599  
Epoch 24001/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9594  
Epoch 24002/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9597  
Epoch 24003/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9594  
Epoch 24004/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9593  
Epoch 24005/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9586  
Epoch 24006/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0311 - accuracy:  
0.9595  
Epoch 24007/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9595  
Epoch 24008/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0303 - accuracy:  
0.9597  
Epoch 24009/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0298 - accuracy:  
0.9597  
Epoch 24010/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9595  
Epoch 24011/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9589  
Epoch 24012/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9587  
Epoch 24013/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9602  
Epoch 24014/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9603  
Epoch 24015/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9595  
Epoch 24016/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9591  
Epoch 24017/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9595  
Epoch 24018/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0310 - accuracy:  
0.9591  
Epoch 24019/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0311 - accuracy:  
0.9592  
Epoch 24020/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9599  
Epoch 24021/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9602  
Epoch 24022/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0302 - accuracy:  
0.9592  
Epoch 24023/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9589  
Epoch 24024/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9595  
Epoch 24025/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9599  
Epoch 24026/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0323 - accuracy:  
0.9592  
Epoch 24027/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0313 - accuracy:  
0.9588  
Epoch 24028/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0315 - accuracy:  
0.9591  
Epoch 24029/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9595  
Epoch 24030/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9586  
Epoch 24031/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9588  
Epoch 24032/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9589  
Epoch 24033/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9605  
Epoch 24034/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9588  
Epoch 24035/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0311 - accuracy:  
0.9590  
Epoch 24036/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0318 - accuracy:  
0.9606  
Epoch 24037/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0329 - accuracy:  
0.9598  
Epoch 24038/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0321 - accuracy:  
0.9593  
Epoch 24039/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9599  
Epoch 24040/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0316 - accuracy:  
0.9602  
Epoch 24041/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0309 - accuracy:  
0.9596  
Epoch 24042/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9585  
Epoch 24043/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy:  
0.9601  
Epoch 24044/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9595  
Epoch 24045/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9591  
Epoch 24046/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9591  
Epoch 24047/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9592  
Epoch 24048/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9591  
Epoch 24049/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9605  
Epoch 24050/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9595  
Epoch 24051/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9605  
Epoch 24052/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy:  
0.9600  
Epoch 24053/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0315 - accuracy:  
0.9590  
Epoch 24054/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0309 - accuracy:  
0.9596  
Epoch 24055/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0312 - accuracy:  
0.9609  
Epoch 24056/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0306 - accuracy:  
0.9596  
Epoch 24057/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0305 - accuracy:  
0.9598  
Epoch 24058/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0305 - accuracy:  
0.9597  
Epoch 24059/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9597  
Epoch 24060/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0307 - accuracy:  
0.9608  
Epoch 24061/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9596  
Epoch 24062/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9594  
Epoch 24063/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9594  
Epoch 24064/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9590  
Epoch 24065/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0310 - accuracy:  
0.9599  
Epoch 24066/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9602  
Epoch 24067/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9594  
Epoch 24068/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0314 - accuracy:  
0.9594  
Epoch 24069/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0301 - accuracy:  
0.9595  
Epoch 24070/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9594  
Epoch 24071/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9608  
Epoch 24072/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9594  
Epoch 24073/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0326 - accuracy:  
0.9600  
Epoch 24074/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9601  
Epoch 24075/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy:  
0.9597  
Epoch 24076/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9597  
Epoch 24077/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9601  
Epoch 24078/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy:  
0.9593  
Epoch 24079/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9597  
Epoch 24080/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy: 0.9600  
Epoch 24081/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy: 0.9611  
Epoch 24082/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9597  
Epoch 24083/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9601  
Epoch 24084/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9592  
Epoch 24085/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0305 - accuracy: 0.9592  
Epoch 24086/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy: 0.9591  
Epoch 24087/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0305 - accuracy: 0.9589  
Epoch 24088/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy: 0.9596  
Epoch 24089/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy: 0.9604  
Epoch 24090/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy: 0.9597  
Epoch 24091/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy: 0.9597  
Epoch 24092/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy: 0.9597  
Epoch 24093/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9595  
Epoch 24094/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9591  
Epoch 24095/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9584  
Epoch 24096/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9602  
Epoch 24097/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy:  
0.9593  
Epoch 24098/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9602  
Epoch 24099/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9592  
Epoch 24100/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9592  
Epoch 24101/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9597  
Epoch 24102/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9594  
Epoch 24103/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9589  
Epoch 24104/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0307 - accuracy:  
0.9597  
Epoch 24105/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9594  
Epoch 24106/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9594  
Epoch 24107/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9598  
Epoch 24108/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0302 - accuracy:  
0.9591  
Epoch 24109/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0303 - accuracy:  
0.9591  
Epoch 24110/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9586  
Epoch 24111/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9596  
Epoch 24112/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9605  
Epoch 24113/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9601  
Epoch 24114/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0309 - accuracy:  
0.9605  
Epoch 24115/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0307 - accuracy:  
0.9601  
Epoch 24116/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9594  
Epoch 24117/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9596  
Epoch 24118/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9595  
Epoch 24119/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9599  
Epoch 24120/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9590  
Epoch 24121/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9606  
Epoch 24122/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0312 - accuracy:  
0.9596  
Epoch 24123/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9601  
Epoch 24124/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0316 - accuracy:  
0.9592  
Epoch 24125/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9596  
Epoch 24126/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9603  
Epoch 24127/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0318 - accuracy:  
0.9600  
Epoch 24128/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9591  
Epoch 24129/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9603  
Epoch 24130/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0311 - accuracy: 0.9599  
Epoch 24131/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy: 0.9590  
Epoch 24132/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9596  
Epoch 24133/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy: 0.9600  
Epoch 24134/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy: 0.9601  
Epoch 24135/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy: 0.9597  
Epoch 24136/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy: 0.9588  
Epoch 24137/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9601  
Epoch 24138/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9600  
Epoch 24139/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy: 0.9590  
Epoch 24140/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy: 0.9596  
Epoch 24141/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy: 0.9591  
Epoch 24142/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9589  
Epoch 24143/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy: 0.9590  
Epoch 24144/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9591  
Epoch 24145/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy:  
0.9606  
Epoch 24146/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9596  
Epoch 24147/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9585  
Epoch 24148/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0307 - accuracy:  
0.9602  
Epoch 24149/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9599  
Epoch 24150/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9585  
Epoch 24151/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9602  
Epoch 24152/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9600  
Epoch 24153/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9607  
Epoch 24154/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9592  
Epoch 24155/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0304 - accuracy:  
0.9602  
Epoch 24156/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9594  
Epoch 24157/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9587  
Epoch 24158/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0305 - accuracy:  
0.9597  
Epoch 24159/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0310 - accuracy:  
0.9598  
Epoch 24160/100000

2/2 [=====] - 0s 123ms/step - loss: 0.0314 - accuracy:  
0.9592  
Epoch 24161/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0308 - accuracy:  
0.9594  
Epoch 24162/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0321 - accuracy:  
0.9593  
Epoch 24163/100000  
2/2 [=====] - 0s 130ms/step - loss: 0.0338 - accuracy:  
0.9594  
Epoch 24164/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0311 - accuracy:  
0.9598  
Epoch 24165/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0308 - accuracy:  
0.9591  
Epoch 24166/100000  
2/2 [=====] - 0s 133ms/step - loss: 0.0307 - accuracy:  
0.9584  
Epoch 24167/100000  
2/2 [=====] - 0s 128ms/step - loss: 0.0310 - accuracy:  
0.9606  
Epoch 24168/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9599  
Epoch 24169/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9592  
Epoch 24170/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9593  
Epoch 24171/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9598  
Epoch 24172/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9593  
Epoch 24173/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9595  
Epoch 24174/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9601  
Epoch 24175/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0309 - accuracy:  
0.9603  
Epoch 24176/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0307 - accuracy: 0.9588  
Epoch 24177/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9604  
Epoch 24178/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy: 0.9600  
Epoch 24179/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy: 0.9605  
Epoch 24180/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0302 - accuracy: 0.9596  
Epoch 24181/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy: 0.9592  
Epoch 24182/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9601  
Epoch 24183/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9597  
Epoch 24184/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy: 0.9590  
Epoch 24185/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy: 0.9598  
Epoch 24186/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9599  
Epoch 24187/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy: 0.9598  
Epoch 24188/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0314 - accuracy: 0.9603  
Epoch 24189/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy: 0.9591  
Epoch 24190/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy: 0.9607  
Epoch 24191/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9592  
Epoch 24192/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9595  
Epoch 24193/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0319 - accuracy:  
0.9606  
Epoch 24194/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9589  
Epoch 24195/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0312 - accuracy:  
0.9593  
Epoch 24196/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9592  
Epoch 24197/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9603  
Epoch 24198/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9590  
Epoch 24199/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9590  
Epoch 24200/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0311 - accuracy:  
0.9599  
Epoch 24201/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9596  
Epoch 24202/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9602  
Epoch 24203/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0304 - accuracy:  
0.9591  
Epoch 24204/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9590  
Epoch 24205/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9588  
Epoch 24206/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0309 - accuracy:  
0.9596  
Epoch 24207/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9604  
Epoch 24208/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy: 0.9596  
Epoch 24209/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9587  
Epoch 24210/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9600  
Epoch 24211/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy: 0.9595  
Epoch 24212/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0309 - accuracy: 0.9594  
Epoch 24213/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0302 - accuracy: 0.9585  
Epoch 24214/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy: 0.9596  
Epoch 24215/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0309 - accuracy: 0.9591  
Epoch 24216/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9595  
Epoch 24217/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9607  
Epoch 24218/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy: 0.9597  
Epoch 24219/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy: 0.9600  
Epoch 24220/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0323 - accuracy: 0.9593  
Epoch 24221/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9589  
Epoch 24222/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy: 0.9604  
Epoch 24223/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy: 0.9595  
Epoch 24224/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9591  
Epoch 24225/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9596  
Epoch 24226/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0313 - accuracy:  
0.9603  
Epoch 24227/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9595  
Epoch 24228/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0328 - accuracy:  
0.9601  
Epoch 24229/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9611  
Epoch 24230/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9599  
Epoch 24231/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy:  
0.9593  
Epoch 24232/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0309 - accuracy:  
0.9594  
Epoch 24233/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0322 - accuracy:  
0.9587  
Epoch 24234/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9600  
Epoch 24235/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9586  
Epoch 24236/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9590  
Epoch 24237/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9601  
Epoch 24238/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9603  
Epoch 24239/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9594  
Epoch 24240/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9600  
Epoch 24241/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9597  
Epoch 24242/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy:  
0.9592  
Epoch 24243/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9599  
Epoch 24244/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9595  
Epoch 24245/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0314 - accuracy:  
0.9605  
Epoch 24246/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9598  
Epoch 24247/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9590  
Epoch 24248/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9597  
Epoch 24249/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0314 - accuracy:  
0.9595  
Epoch 24250/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9603  
Epoch 24251/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0307 - accuracy:  
0.9593  
Epoch 24252/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9604  
Epoch 24253/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9596  
Epoch 24254/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9591  
Epoch 24255/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9597  
Epoch 24256/100000



2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9589  
Epoch 24257/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9587  
Epoch 24258/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9596  
Epoch 24259/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9595  
Epoch 24260/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9591  
Epoch 24261/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9595  
Epoch 24262/100000  
2/2 [=====] - 0s 126ms/step - loss: 0.0305 - accuracy:  
0.9599  
Epoch 24263/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9601  
Epoch 24264/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9589  
Epoch 24265/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9590  
Epoch 24266/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9595  
Epoch 24267/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9599  
Epoch 24268/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0298 - accuracy:  
0.9591  
Epoch 24269/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9594  
Epoch 24270/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9602  
Epoch 24271/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9603  
Epoch 24272/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0301 - accuracy:  
 0.9598  
 Epoch 24273/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0301 - accuracy:  
 0.9595  
 Epoch 24274/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0300 - accuracy:  
 0.9599  
 Epoch 24275/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
 0.9594  
 Epoch 24276/100000  
 2/2 [=====] - 0s 121ms/step - loss: 0.0304 - accuracy:  
 0.9594  
 Epoch 24277/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
 0.9589  
 Epoch 24278/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
 0.9597  
 Epoch 24279/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0311 - accuracy:  
 0.9597  
 Epoch 24280/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0307 - accuracy:  
 0.9590  
 Epoch 24281/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
 0.9591  
 Epoch 24282/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
 0.9591  
 Epoch 24283/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
 0.9606  
 Epoch 24284/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
 0.9594  
 Epoch 24285/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
 0.9591  
 Epoch 24286/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
 0.9607  
 Epoch 24287/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy:  
 0.9597  
 Epoch 24288/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy: 0.9600  
 Epoch 24289/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9611  
 Epoch 24290/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9599  
 Epoch 24291/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0305 - accuracy: 0.9602  
 Epoch 24292/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9599  
 Epoch 24293/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy: 0.9589  
 Epoch 24294/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0306 - accuracy: 0.9595  
 Epoch 24295/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy: 0.9592  
 Epoch 24296/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9592  
 Epoch 24297/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9583  
 Epoch 24298/100000  
 2/2 [=====] - 0s 120ms/step - loss: 0.0302 - accuracy: 0.9590  
 Epoch 24299/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy: 0.9586  
 Epoch 24300/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9592  
 Epoch 24301/100000  
 2/2 [=====] - 0s 121ms/step - loss: 0.0308 - accuracy: 0.9599  
 Epoch 24302/100000  
 2/2 [=====] - 0s 120ms/step - loss: 0.0300 - accuracy: 0.9600  
 Epoch 24303/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9589  
 Epoch 24304/100000

2/2 [=====] - 0s 119ms/step - loss: 0.0308 - accuracy: 0.9599  
Epoch 24305/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0298 - accuracy: 0.9593  
Epoch 24306/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9588  
Epoch 24307/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy: 0.9601  
Epoch 24308/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy: 0.9598  
Epoch 24309/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy: 0.9602  
Epoch 24310/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9597  
Epoch 24311/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0306 - accuracy: 0.9601  
Epoch 24312/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0310 - accuracy: 0.9611  
Epoch 24313/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy: 0.9602  
Epoch 24314/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0316 - accuracy: 0.9596  
Epoch 24315/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9593  
Epoch 24316/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9597  
Epoch 24317/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9594  
Epoch 24318/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9598  
Epoch 24319/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy: 0.9605  
Epoch 24320/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy: 0.9599  
Epoch 24321/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0306 - accuracy: 0.9596  
Epoch 24322/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9601  
Epoch 24323/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9595  
Epoch 24324/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9596  
Epoch 24325/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9602  
Epoch 24326/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy: 0.9599  
Epoch 24327/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9594  
Epoch 24328/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9598  
Epoch 24329/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy: 0.9593  
Epoch 24330/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy: 0.9600  
Epoch 24331/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy: 0.9598  
Epoch 24332/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9591  
Epoch 24333/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0303 - accuracy: 0.9592  
Epoch 24334/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9606  
Epoch 24335/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9593  
Epoch 24336/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy: 0.9601  
 Epoch 24337/100000  
 2/2 [=====] - 0s 120ms/step - loss: 0.0301 - accuracy: 0.9604  
 Epoch 24338/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy: 0.9600  
 Epoch 24339/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy: 0.9592  
 Epoch 24340/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0305 - accuracy: 0.9593  
 Epoch 24341/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy: 0.9595  
 Epoch 24342/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9599  
 Epoch 24343/100000  
 2/2 [=====] - 0s 121ms/step - loss: 0.0304 - accuracy: 0.9598  
 Epoch 24344/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0303 - accuracy: 0.9589  
 Epoch 24345/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9596  
 Epoch 24346/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0300 - accuracy: 0.9596  
 Epoch 24347/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9597  
 Epoch 24348/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0304 - accuracy: 0.9601  
 Epoch 24349/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9592  
 Epoch 24350/100000  
 2/2 [=====] - 0s 123ms/step - loss: 0.0304 - accuracy: 0.9606  
 Epoch 24351/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy: 0.9589  
 Epoch 24352/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9600  
Epoch 24353/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9596  
Epoch 24354/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9600  
Epoch 24355/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy:  
0.9596  
Epoch 24356/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0309 - accuracy:  
0.9603  
Epoch 24357/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9598  
Epoch 24358/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9607  
Epoch 24359/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9600  
Epoch 24360/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9603  
Epoch 24361/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0308 - accuracy:  
0.9596  
Epoch 24362/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9594  
Epoch 24363/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9589  
Epoch 24364/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9594  
Epoch 24365/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9601  
Epoch 24366/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9597  
Epoch 24367/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0339 - accuracy:  
0.9599  
Epoch 24368/100000

2/2 [=====] - 0s 119ms/step - loss: 0.0321 - accuracy:  
0.9592  
Epoch 24369/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9599  
Epoch 24370/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9594  
Epoch 24371/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9603  
Epoch 24372/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9604  
Epoch 24373/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9591  
Epoch 24374/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9598  
Epoch 24375/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9592  
Epoch 24376/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9592  
Epoch 24377/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0309 - accuracy:  
0.9587  
Epoch 24378/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9600  
Epoch 24379/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0309 - accuracy:  
0.9604  
Epoch 24380/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9600  
Epoch 24381/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9592  
Epoch 24382/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9586  
Epoch 24383/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy:  
0.9587  
Epoch 24384/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9602  
Epoch 24385/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9601  
Epoch 24386/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9590  
Epoch 24387/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9599  
Epoch 24388/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9596  
Epoch 24389/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9603  
Epoch 24390/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9592  
Epoch 24391/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9586  
Epoch 24392/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9585  
Epoch 24393/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9596  
Epoch 24394/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9598  
Epoch 24395/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9597  
Epoch 24396/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9602  
Epoch 24397/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9594  
Epoch 24398/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9597  
Epoch 24399/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9588  
Epoch 24400/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy: 0.9593  
Epoch 24401/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9600  
Epoch 24402/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy: 0.9596  
Epoch 24403/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9589  
Epoch 24404/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0298 - accuracy: 0.9589  
Epoch 24405/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9600  
Epoch 24406/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9593  
Epoch 24407/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9602  
Epoch 24408/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0303 - accuracy: 0.9603  
Epoch 24409/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9592  
Epoch 24410/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0300 - accuracy: 0.9582  
Epoch 24411/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy: 0.9600  
Epoch 24412/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy: 0.9612  
Epoch 24413/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0302 - accuracy: 0.9592  
Epoch 24414/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy: 0.9600  
Epoch 24415/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy: 0.9592  
Epoch 24416/100000

2/2 [=====] - 0s 121ms/step - loss: 0.0313 - accuracy:  
0.9593  
Epoch 24417/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0322 - accuracy:  
0.9599  
Epoch 24418/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0315 - accuracy:  
0.9595  
Epoch 24419/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9598  
Epoch 24420/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0318 - accuracy:  
0.9593  
Epoch 24421/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9598  
Epoch 24422/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9594  
Epoch 24423/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9589  
Epoch 24424/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9603  
Epoch 24425/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9590  
Epoch 24426/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9588  
Epoch 24427/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9590  
Epoch 24428/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9599  
Epoch 24429/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9601  
Epoch 24430/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9590  
Epoch 24431/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9591  
Epoch 24432/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9589  
Epoch 24433/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy: 0.9592  
Epoch 24434/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0311 - accuracy: 0.9600  
Epoch 24435/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0310 - accuracy: 0.9596  
Epoch 24436/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9600  
Epoch 24437/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9605  
Epoch 24438/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy: 0.9597  
Epoch 24439/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0307 - accuracy: 0.9590  
Epoch 24440/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy: 0.9602  
Epoch 24441/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy: 0.9602  
Epoch 24442/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0308 - accuracy: 0.9587  
Epoch 24443/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9601  
Epoch 24444/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9595  
Epoch 24445/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9595  
Epoch 24446/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9595  
Epoch 24447/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9592  
Epoch 24448/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9602  
Epoch 24449/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0311 - accuracy:  
0.9602  
Epoch 24450/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0314 - accuracy:  
0.9597  
Epoch 24451/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0319 - accuracy:  
0.9586  
Epoch 24452/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9596  
Epoch 24453/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0304 - accuracy:  
0.9595  
Epoch 24454/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0313 - accuracy:  
0.9598  
Epoch 24455/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9592  
Epoch 24456/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9600  
Epoch 24457/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9596  
Epoch 24458/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0311 - accuracy:  
0.9596  
Epoch 24459/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0328 - accuracy:  
0.9593  
Epoch 24460/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9606  
Epoch 24461/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9601  
Epoch 24462/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0312 - accuracy:  
0.9595  
Epoch 24463/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9599  
Epoch 24464/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9594  
Epoch 24465/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9590  
Epoch 24466/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9599  
Epoch 24467/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9593  
Epoch 24468/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9601  
Epoch 24469/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9581  
Epoch 24470/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9587  
Epoch 24471/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9588  
Epoch 24472/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0314 - accuracy:  
0.9592  
Epoch 24473/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9600  
Epoch 24474/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9587  
Epoch 24475/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9598  
Epoch 24476/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9596  
Epoch 24477/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9595  
Epoch 24478/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9600  
Epoch 24479/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9605  
Epoch 24480/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy: 0.9602  
Epoch 24481/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9603  
Epoch 24482/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0312 - accuracy: 0.9609  
Epoch 24483/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9601  
Epoch 24484/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9600  
Epoch 24485/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9599  
Epoch 24486/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9610  
Epoch 24487/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9595  
Epoch 24488/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy: 0.9599  
Epoch 24489/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0305 - accuracy: 0.9600  
Epoch 24490/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy: 0.9585  
Epoch 24491/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy: 0.9592  
Epoch 24492/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy: 0.9594  
Epoch 24493/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9595  
Epoch 24494/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9608  
Epoch 24495/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9596  
Epoch 24496/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0304 - accuracy:  
0.9597  
Epoch 24497/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9592  
Epoch 24498/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9597  
Epoch 24499/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9591  
Epoch 24500/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0314 - accuracy:  
0.9599  
Epoch 24501/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9599  
Epoch 24502/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9600  
Epoch 24503/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0314 - accuracy:  
0.9604  
Epoch 24504/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9594  
Epoch 24505/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy:  
0.9591  
Epoch 24506/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9594  
Epoch 24507/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9597  
Epoch 24508/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9590  
Epoch 24509/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0312 - accuracy:  
0.9605  
Epoch 24510/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9591  
Epoch 24511/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9603  
Epoch 24512/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9601  
Epoch 24513/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9605  
Epoch 24514/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9597  
Epoch 24515/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9601  
Epoch 24516/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9597  
Epoch 24517/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9601  
Epoch 24518/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9596  
Epoch 24519/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9578  
Epoch 24520/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9587  
Epoch 24521/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9593  
Epoch 24522/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9611  
Epoch 24523/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9599  
Epoch 24524/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9591  
Epoch 24525/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9597  
Epoch 24526/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9590  
Epoch 24527/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9592  
Epoch 24528/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9595  
Epoch 24529/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9586  
Epoch 24530/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9600  
Epoch 24531/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0319 - accuracy:  
0.9600  
Epoch 24532/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9598  
Epoch 24533/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9595  
Epoch 24534/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0312 - accuracy:  
0.9585  
Epoch 24535/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9602  
Epoch 24536/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0310 - accuracy:  
0.9595  
Epoch 24537/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0313 - accuracy:  
0.9604  
Epoch 24538/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9592  
Epoch 24539/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy:  
0.9601  
Epoch 24540/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0322 - accuracy:  
0.9604  
Epoch 24541/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9588  
Epoch 24542/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9597  
Epoch 24543/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9601  
Epoch 24544/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0319 - accuracy:  
0.9601  
Epoch 24545/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0328 - accuracy:  
0.9591  
Epoch 24546/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0320 - accuracy:  
0.9594  
Epoch 24547/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9594  
Epoch 24548/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9595  
Epoch 24549/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9582  
Epoch 24550/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0324 - accuracy:  
0.9594  
Epoch 24551/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0313 - accuracy:  
0.9602  
Epoch 24552/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9594  
Epoch 24553/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9597  
Epoch 24554/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0314 - accuracy:  
0.9598  
Epoch 24555/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9604  
Epoch 24556/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9595  
Epoch 24557/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9604  
Epoch 24558/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9595  
Epoch 24559/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9597  
Epoch 24560/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9597  
Epoch 24561/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9614  
Epoch 24562/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9597  
Epoch 24563/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9593  
Epoch 24564/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9592  
Epoch 24565/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9600  
Epoch 24566/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9605  
Epoch 24567/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9596  
Epoch 24568/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9600  
Epoch 24569/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0306 - accuracy:  
0.9609  
Epoch 24570/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9602  
Epoch 24571/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9594  
Epoch 24572/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9598  
Epoch 24573/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9597  
Epoch 24574/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9592  
Epoch 24575/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0306 - accuracy:  
0.9598  
Epoch 24576/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
 0.9591  
 Epoch 24577/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
 0.9601  
 Epoch 24578/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
 0.9602  
 Epoch 24579/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
 0.9598  
 Epoch 24580/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
 0.9603  
 Epoch 24581/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
 0.9591  
 Epoch 24582/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0309 - accuracy:  
 0.9595  
 Epoch 24583/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0311 - accuracy:  
 0.9607  
 Epoch 24584/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
 0.9597  
 Epoch 24585/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
 0.9600  
 Epoch 24586/100000  
 2/2 [=====] - 0s 121ms/step - loss: 0.0331 - accuracy:  
 0.9593  
 Epoch 24587/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0338 - accuracy:  
 0.9611  
 Epoch 24588/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
 0.9590  
 Epoch 24589/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0321 - accuracy:  
 0.9589  
 Epoch 24590/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0321 - accuracy:  
 0.9590  
 Epoch 24591/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
 0.9590  
 Epoch 24592/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9595  
Epoch 24593/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9594  
Epoch 24594/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9604  
Epoch 24595/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9586  
Epoch 24596/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9598  
Epoch 24597/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9609  
Epoch 24598/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9600  
Epoch 24599/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9598  
Epoch 24600/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9611  
Epoch 24601/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9598  
Epoch 24602/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0322 - accuracy:  
0.9603  
Epoch 24603/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9599  
Epoch 24604/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9586  
Epoch 24605/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9604  
Epoch 24606/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9593  
Epoch 24607/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9599  
Epoch 24608/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9599  
Epoch 24609/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9584  
Epoch 24610/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9590  
Epoch 24611/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9603  
Epoch 24612/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy: 0.9595  
Epoch 24613/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0314 - accuracy: 0.9593  
Epoch 24614/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy: 0.9595  
Epoch 24615/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy: 0.9610  
Epoch 24616/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy: 0.9603  
Epoch 24617/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy: 0.9603  
Epoch 24618/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9592  
Epoch 24619/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy: 0.9588  
Epoch 24620/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9588  
Epoch 24621/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy: 0.9598  
Epoch 24622/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9606  
Epoch 24623/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy: 0.9583  
Epoch 24624/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9588  
Epoch 24625/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9597  
Epoch 24626/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9597  
Epoch 24627/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9598  
Epoch 24628/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9600  
Epoch 24629/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9597  
Epoch 24630/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9595  
Epoch 24631/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy: 0.9592  
Epoch 24632/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9598  
Epoch 24633/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9593  
Epoch 24634/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9594  
Epoch 24635/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy: 0.9598  
Epoch 24636/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0313 - accuracy: 0.9610  
Epoch 24637/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9596  
Epoch 24638/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy: 0.9591  
Epoch 24639/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0300 - accuracy: 0.9589  
Epoch 24640/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9592  
Epoch 24641/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9592  
Epoch 24642/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9598  
Epoch 24643/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9596  
Epoch 24644/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9588  
Epoch 24645/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0313 - accuracy:  
0.9597  
Epoch 24646/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9588  
Epoch 24647/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9590  
Epoch 24648/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9594  
Epoch 24649/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9585  
Epoch 24650/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9607  
Epoch 24651/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9589  
Epoch 24652/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9606  
Epoch 24653/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9612  
Epoch 24654/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9593  
Epoch 24655/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9601  
Epoch 24656/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy:  
0.9598  
Epoch 24657/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy:  
0.9590  
Epoch 24658/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy:  
0.9601  
Epoch 24659/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0336 - accuracy:  
0.9592  
Epoch 24660/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9594  
Epoch 24661/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9597  
Epoch 24662/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9600  
Epoch 24663/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9590  
Epoch 24664/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9594  
Epoch 24665/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9594  
Epoch 24666/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9595  
Epoch 24667/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0301 - accuracy:  
0.9588  
Epoch 24668/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9593  
Epoch 24669/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9598  
Epoch 24670/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0304 - accuracy:  
0.9584  
Epoch 24671/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9599  
Epoch 24672/100000

2/2 [=====] - 0s 119ms/step - loss: 0.0304 - accuracy:  
0.9604  
Epoch 24673/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9597  
Epoch 24674/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9590  
Epoch 24675/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0305 - accuracy:  
0.9600  
Epoch 24676/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9595  
Epoch 24677/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9590  
Epoch 24678/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9614  
Epoch 24679/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9595  
Epoch 24680/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9593  
Epoch 24681/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy:  
0.9600  
Epoch 24682/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9599  
Epoch 24683/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9595  
Epoch 24684/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9596  
Epoch 24685/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9600  
Epoch 24686/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9602  
Epoch 24687/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9586  
Epoch 24688/100000

2/2 [=====] - 0s 119ms/step - loss: 0.0306 - accuracy:  
0.9598  
Epoch 24689/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy:  
0.9607  
Epoch 24690/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9597  
Epoch 24691/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0304 - accuracy:  
0.9592  
Epoch 24692/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9595  
Epoch 24693/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0309 - accuracy:  
0.9604  
Epoch 24694/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9603  
Epoch 24695/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9601  
Epoch 24696/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9595  
Epoch 24697/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9601  
Epoch 24698/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9609  
Epoch 24699/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9603  
Epoch 24700/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9597  
Epoch 24701/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9592  
Epoch 24702/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0307 - accuracy:  
0.9595  
Epoch 24703/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9598  
Epoch 24704/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0307 - accuracy:  
0.9588  
Epoch 24705/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9600  
Epoch 24706/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9604  
Epoch 24707/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9606  
Epoch 24708/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9596  
Epoch 24709/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9598  
Epoch 24710/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0305 - accuracy:  
0.9607  
Epoch 24711/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9591  
Epoch 24712/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9599  
Epoch 24713/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9589  
Epoch 24714/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9597  
Epoch 24715/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9588  
Epoch 24716/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9595  
Epoch 24717/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9598  
Epoch 24718/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9596  
Epoch 24719/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9606  
Epoch 24720/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9590  
Epoch 24721/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0306 - accuracy:  
0.9604  
Epoch 24722/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9598  
Epoch 24723/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9604  
Epoch 24724/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0308 - accuracy:  
0.9597  
Epoch 24725/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9597  
Epoch 24726/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9595  
Epoch 24727/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9592  
Epoch 24728/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0305 - accuracy:  
0.9605  
Epoch 24729/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9593  
Epoch 24730/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9604  
Epoch 24731/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9601  
Epoch 24732/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9603  
Epoch 24733/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9593  
Epoch 24734/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9600  
Epoch 24735/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9605  
Epoch 24736/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9601  
Epoch 24737/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9593  
Epoch 24738/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9602  
Epoch 24739/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9598  
Epoch 24740/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9602  
Epoch 24741/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9597  
Epoch 24742/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9598  
Epoch 24743/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0314 - accuracy:  
0.9595  
Epoch 24744/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9596  
Epoch 24745/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9589  
Epoch 24746/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9591  
Epoch 24747/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9595  
Epoch 24748/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0316 - accuracy:  
0.9590  
Epoch 24749/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9588  
Epoch 24750/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9592  
Epoch 24751/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy:  
0.9595  
Epoch 24752/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9608  
Epoch 24753/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9594  
Epoch 24754/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9598  
Epoch 24755/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0303 - accuracy:  
0.9591  
Epoch 24756/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9598  
Epoch 24757/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9602  
Epoch 24758/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9597  
Epoch 24759/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0302 - accuracy:  
0.9593  
Epoch 24760/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9610  
Epoch 24761/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9599  
Epoch 24762/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9610  
Epoch 24763/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9588  
Epoch 24764/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0307 - accuracy:  
0.9603  
Epoch 24765/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9596  
Epoch 24766/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9592  
Epoch 24767/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9593  
Epoch 24768/100000



2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy:  
0.9613  
Epoch 24769/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0307 - accuracy:  
0.9599  
Epoch 24770/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9591  
Epoch 24771/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9595  
Epoch 24772/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0303 - accuracy:  
0.9593  
Epoch 24773/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9601  
Epoch 24774/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9599  
Epoch 24775/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9607  
Epoch 24776/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0301 - accuracy:  
0.9595  
Epoch 24777/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9597  
Epoch 24778/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9595  
Epoch 24779/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0302 - accuracy:  
0.9589  
Epoch 24780/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9594  
Epoch 24781/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9591  
Epoch 24782/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9592  
Epoch 24783/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9588  
Epoch 24784/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9601  
Epoch 24785/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9591  
Epoch 24786/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9597  
Epoch 24787/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0306 - accuracy:  
0.9609  
Epoch 24788/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9600  
Epoch 24789/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9597  
Epoch 24790/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9598  
Epoch 24791/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9597  
Epoch 24792/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0312 - accuracy:  
0.9607  
Epoch 24793/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0310 - accuracy:  
0.9590  
Epoch 24794/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9601  
Epoch 24795/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9599  
Epoch 24796/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9602  
Epoch 24797/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9589  
Epoch 24798/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9603  
Epoch 24799/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9595  
Epoch 24800/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9590  
Epoch 24801/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9603  
Epoch 24802/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9610  
Epoch 24803/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9597  
Epoch 24804/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy: 0.9596  
Epoch 24805/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy: 0.9590  
Epoch 24806/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy: 0.9590  
Epoch 24807/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9607  
Epoch 24808/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0305 - accuracy: 0.9604  
Epoch 24809/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9586  
Epoch 24810/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy: 0.9591  
Epoch 24811/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9597  
Epoch 24812/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy: 0.9591  
Epoch 24813/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy: 0.9606  
Epoch 24814/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy: 0.9596  
Epoch 24815/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0322 - accuracy: 0.9602  
Epoch 24816/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9601  
Epoch 24817/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0334 - accuracy:  
0.9595  
Epoch 24818/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0321 - accuracy:  
0.9590  
Epoch 24819/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0325 - accuracy:  
0.9594  
Epoch 24820/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9598  
Epoch 24821/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9594  
Epoch 24822/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9601  
Epoch 24823/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9592  
Epoch 24824/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9600  
Epoch 24825/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9595  
Epoch 24826/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9586  
Epoch 24827/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9599  
Epoch 24828/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9592  
Epoch 24829/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9591  
Epoch 24830/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0315 - accuracy:  
0.9603  
Epoch 24831/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0309 - accuracy:  
0.9592  
Epoch 24832/100000

2/2 [=====] - 0s 121ms/step - loss: 0.0309 - accuracy:  
0.9602  
Epoch 24833/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0305 - accuracy:  
0.9597  
Epoch 24834/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9591  
Epoch 24835/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9598  
Epoch 24836/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9598  
Epoch 24837/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9591  
Epoch 24838/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9591  
Epoch 24839/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9605  
Epoch 24840/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9607  
Epoch 24841/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0303 - accuracy:  
0.9594  
Epoch 24842/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0300 - accuracy:  
0.9590  
Epoch 24843/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0302 - accuracy:  
0.9598  
Epoch 24844/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9595  
Epoch 24845/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9604  
Epoch 24846/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9590  
Epoch 24847/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9597  
Epoch 24848/100000

2/2 [=====] - 0s 119ms/step - loss: 0.0300 - accuracy:  
0.9597  
Epoch 24849/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9591  
Epoch 24850/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9589  
Epoch 24851/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0314 - accuracy:  
0.9592  
Epoch 24852/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9603  
Epoch 24853/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9600  
Epoch 24854/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9606  
Epoch 24855/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9603  
Epoch 24856/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9607  
Epoch 24857/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9593  
Epoch 24858/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9589  
Epoch 24859/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9596  
Epoch 24860/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9591  
Epoch 24861/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9588  
Epoch 24862/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9594  
Epoch 24863/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9600  
Epoch 24864/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9588  
Epoch 24865/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy: 0.9592  
Epoch 24866/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9599  
Epoch 24867/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy: 0.9596  
Epoch 24868/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0303 - accuracy: 0.9608  
Epoch 24869/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9586  
Epoch 24870/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy: 0.9592  
Epoch 24871/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9596  
Epoch 24872/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy: 0.9597  
Epoch 24873/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy: 0.9588  
Epoch 24874/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy: 0.9589  
Epoch 24875/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9586  
Epoch 24876/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0307 - accuracy: 0.9594  
Epoch 24877/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy: 0.9610  
Epoch 24878/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9597  
Epoch 24879/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9605  
Epoch 24880/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9596  
Epoch 24881/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9595  
Epoch 24882/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9589  
Epoch 24883/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9598  
Epoch 24884/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9594  
Epoch 24885/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9594  
Epoch 24886/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9598  
Epoch 24887/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9600  
Epoch 24888/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9600  
Epoch 24889/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9609  
Epoch 24890/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9603  
Epoch 24891/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9602  
Epoch 24892/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9595  
Epoch 24893/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9597  
Epoch 24894/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0315 - accuracy:  
0.9597  
Epoch 24895/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0323 - accuracy:  
0.9595  
Epoch 24896/100000



2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy: 0.9595  
Epoch 24897/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9598  
Epoch 24898/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9586  
Epoch 24899/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0311 - accuracy: 0.9603  
Epoch 24900/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy: 0.9598  
Epoch 24901/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy: 0.9594  
Epoch 24902/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy: 0.9598  
Epoch 24903/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy: 0.9587  
Epoch 24904/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy: 0.9597  
Epoch 24905/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy: 0.9598  
Epoch 24906/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy: 0.9599  
Epoch 24907/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9596  
Epoch 24908/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy: 0.9603  
Epoch 24909/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0306 - accuracy: 0.9589  
Epoch 24910/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9592  
Epoch 24911/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy: 0.9598  
Epoch 24912/100000

2/2 [=====] - 0s 124ms/step - loss: 0.0309 - accuracy: 0.9599  
Epoch 24913/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9588  
Epoch 24914/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy: 0.9607  
Epoch 24915/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy: 0.9596  
Epoch 24916/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9592  
Epoch 24917/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9595  
Epoch 24918/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9597  
Epoch 24919/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9591  
Epoch 24920/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy: 0.9596  
Epoch 24921/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9601  
Epoch 24922/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0306 - accuracy: 0.9593  
Epoch 24923/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy: 0.9595  
Epoch 24924/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9589  
Epoch 24925/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9592  
Epoch 24926/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy: 0.9599  
Epoch 24927/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9598  
Epoch 24928/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0314 - accuracy:  
0.9597  
Epoch 24929/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9600  
Epoch 24930/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9591  
Epoch 24931/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9603  
Epoch 24932/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0307 - accuracy:  
0.9608  
Epoch 24933/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9597  
Epoch 24934/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9600  
Epoch 24935/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9598  
Epoch 24936/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9601  
Epoch 24937/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9596  
Epoch 24938/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0315 - accuracy:  
0.9595  
Epoch 24939/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9593  
Epoch 24940/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy:  
0.9599  
Epoch 24941/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9598  
Epoch 24942/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9591  
Epoch 24943/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0304 - accuracy:  
0.9594  
Epoch 24944/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9598  
Epoch 24945/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9598  
Epoch 24946/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0303 - accuracy:  
0.9589  
Epoch 24947/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9599  
Epoch 24948/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9590  
Epoch 24949/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0306 - accuracy:  
0.9597  
Epoch 24950/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9602  
Epoch 24951/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9590  
Epoch 24952/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9597  
Epoch 24953/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9599  
Epoch 24954/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9603  
Epoch 24955/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9594  
Epoch 24956/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9595  
Epoch 24957/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9605  
Epoch 24958/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9598  
Epoch 24959/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9595  
Epoch 24960/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9603  
Epoch 24961/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9594  
Epoch 24962/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9599  
Epoch 24963/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9599  
Epoch 24964/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9596  
Epoch 24965/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9588  
Epoch 24966/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9602  
Epoch 24967/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9604  
Epoch 24968/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy:  
0.9596  
Epoch 24969/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9597  
Epoch 24970/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9594  
Epoch 24971/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9592  
Epoch 24972/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9593  
Epoch 24973/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9594  
Epoch 24974/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9598  
Epoch 24975/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9604  
Epoch 24976/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9601  
Epoch 24977/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9599  
Epoch 24978/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9604  
Epoch 24979/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0320 - accuracy:  
0.9603  
Epoch 24980/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0326 - accuracy:  
0.9598  
Epoch 24981/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9603  
Epoch 24982/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0313 - accuracy:  
0.9600  
Epoch 24983/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0322 - accuracy:  
0.9600  
Epoch 24984/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy:  
0.9602  
Epoch 24985/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9603  
Epoch 24986/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9600  
Epoch 24987/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0311 - accuracy:  
0.9599  
Epoch 24988/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9596  
Epoch 24989/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9598  
Epoch 24990/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9594  
Epoch 24991/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9592  
Epoch 24992/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9600  
Epoch 24993/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9588  
Epoch 24994/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9603  
Epoch 24995/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9596  
Epoch 24996/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9598  
Epoch 24997/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9596  
Epoch 24998/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9598  
Epoch 24999/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9585  
Epoch 25000/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9590  
Epoch 25001/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9588  
Epoch 25002/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0313 - accuracy:  
0.9596  
Epoch 25003/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy:  
0.9596  
Epoch 25004/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9600  
Epoch 25005/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9596  
Epoch 25006/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9599  
Epoch 25007/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9594  
Epoch 25008/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9607  
Epoch 25009/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0311 - accuracy:  
0.9595  
Epoch 25010/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0312 - accuracy:  
0.9595  
Epoch 25011/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0317 - accuracy:  
0.9595  
Epoch 25012/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9609  
Epoch 25013/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0304 - accuracy:  
0.9605  
Epoch 25014/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9598  
Epoch 25015/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy:  
0.9610  
Epoch 25016/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0309 - accuracy:  
0.9592  
Epoch 25017/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9592  
Epoch 25018/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9600  
Epoch 25019/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9595  
Epoch 25020/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0305 - accuracy:  
0.9597  
Epoch 25021/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9595  
Epoch 25022/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0304 - accuracy:  
0.9584  
Epoch 25023/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9591  
Epoch 25024/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9607  
Epoch 25025/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9599  
Epoch 25026/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0305 - accuracy: 0.9598  
Epoch 25027/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy: 0.9589  
Epoch 25028/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy: 0.9600  
Epoch 25029/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9600  
Epoch 25030/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0303 - accuracy: 0.9599  
Epoch 25031/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy: 0.9592  
Epoch 25032/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0305 - accuracy: 0.9592  
Epoch 25033/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9592  
Epoch 25034/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9586  
Epoch 25035/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy: 0.9598  
Epoch 25036/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy: 0.9598  
Epoch 25037/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy: 0.9588  
Epoch 25038/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy: 0.9591  
Epoch 25039/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9597  
Epoch 25040/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9596  
Epoch 25041/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9597  
Epoch 25042/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0305 - accuracy:  
0.9598  
Epoch 25043/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0298 - accuracy:  
0.9598  
Epoch 25044/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9591  
Epoch 25045/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9593  
Epoch 25046/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9589  
Epoch 25047/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9594  
Epoch 25048/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9589  
Epoch 25049/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9597  
Epoch 25050/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9596  
Epoch 25051/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9597  
Epoch 25052/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9605  
Epoch 25053/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9593  
Epoch 25054/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9591  
Epoch 25055/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9598  
Epoch 25056/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy: 0.9589  
Epoch 25057/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9589  
Epoch 25058/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0310 - accuracy: 0.9596  
Epoch 25059/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy: 0.9598  
Epoch 25060/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy: 0.9595  
Epoch 25061/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0310 - accuracy: 0.9598  
Epoch 25062/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy: 0.9600  
Epoch 25063/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy: 0.9599  
Epoch 25064/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy: 0.9596  
Epoch 25065/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0310 - accuracy: 0.9600  
Epoch 25066/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy: 0.9602  
Epoch 25067/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy: 0.9588  
Epoch 25068/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9593  
Epoch 25069/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9602  
Epoch 25070/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy: 0.9605  
Epoch 25071/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9598  
Epoch 25072/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9590  
Epoch 25073/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9599  
Epoch 25074/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9594  
Epoch 25075/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9596  
Epoch 25076/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9601  
Epoch 25077/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9609  
Epoch 25078/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9598  
Epoch 25079/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9596  
Epoch 25080/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9593  
Epoch 25081/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9598  
Epoch 25082/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9589  
Epoch 25083/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9588  
Epoch 25084/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0314 - accuracy:  
0.9597  
Epoch 25085/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0321 - accuracy:  
0.9599  
Epoch 25086/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9592  
Epoch 25087/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9601  
Epoch 25088/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9600  
Epoch 25089/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9610  
Epoch 25090/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9604  
Epoch 25091/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9591  
Epoch 25092/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9598  
Epoch 25093/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0318 - accuracy:  
0.9590  
Epoch 25094/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0326 - accuracy:  
0.9595  
Epoch 25095/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9596  
Epoch 25096/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9599  
Epoch 25097/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9595  
Epoch 25098/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9600  
Epoch 25099/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0306 - accuracy:  
0.9595  
Epoch 25100/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9601  
Epoch 25101/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9598  
Epoch 25102/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9594  
Epoch 25103/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9589  
Epoch 25104/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9590  
Epoch 25105/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9597  
Epoch 25106/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy: 0.9599  
Epoch 25107/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9588  
Epoch 25108/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9592  
Epoch 25109/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9597  
Epoch 25110/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy: 0.9599  
Epoch 25111/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0307 - accuracy: 0.9608  
Epoch 25112/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9600  
Epoch 25113/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0308 - accuracy: 0.9595  
Epoch 25114/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy: 0.9608  
Epoch 25115/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy: 0.9597  
Epoch 25116/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy: 0.9598  
Epoch 25117/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy: 0.9602  
Epoch 25118/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy: 0.9594  
Epoch 25119/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy: 0.9602  
Epoch 25120/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy: 0.9597  
Epoch 25121/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy: 0.9589  
Epoch 25122/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0307 - accuracy: 0.9600  
Epoch 25123/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0299 - accuracy: 0.9595  
Epoch 25124/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9597  
Epoch 25125/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9601  
Epoch 25126/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9597  
Epoch 25127/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9606  
Epoch 25128/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0299 - accuracy: 0.9594  
Epoch 25129/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy: 0.9606  
Epoch 25130/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy: 0.9599  
Epoch 25131/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy: 0.9601  
Epoch 25132/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9590  
Epoch 25133/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy: 0.9592  
Epoch 25134/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy: 0.9593  
Epoch 25135/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy: 0.9599  
Epoch 25136/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy:  
0.9604  
Epoch 25137/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9598  
Epoch 25138/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9606  
Epoch 25139/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9593  
Epoch 25140/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9601  
Epoch 25141/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9593  
Epoch 25142/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9590  
Epoch 25143/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy:  
0.9592  
Epoch 25144/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9603  
Epoch 25145/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9595  
Epoch 25146/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9591  
Epoch 25147/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0304 - accuracy:  
0.9596  
Epoch 25148/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9587  
Epoch 25149/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9594  
Epoch 25150/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9596  
Epoch 25151/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9599  
Epoch 25152/100000



2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9587  
Epoch 25153/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9607  
Epoch 25154/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9603  
Epoch 25155/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9603  
Epoch 25156/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9590  
Epoch 25157/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9604  
Epoch 25158/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9593  
Epoch 25159/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9599  
Epoch 25160/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9601  
Epoch 25161/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9603  
Epoch 25162/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0307 - accuracy:  
0.9589  
Epoch 25163/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9599  
Epoch 25164/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9596  
Epoch 25165/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9606  
Epoch 25166/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9585  
Epoch 25167/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9594  
Epoch 25168/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9595  
Epoch 25169/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9599  
Epoch 25170/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9596  
Epoch 25171/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9602  
Epoch 25172/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9586  
Epoch 25173/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9602  
Epoch 25174/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0300 - accuracy:  
0.9592  
Epoch 25175/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9595  
Epoch 25176/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9599  
Epoch 25177/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9589  
Epoch 25178/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9604  
Epoch 25179/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9600  
Epoch 25180/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9593  
Epoch 25181/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9606  
Epoch 25182/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0312 - accuracy:  
0.9605  
Epoch 25183/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9597  
Epoch 25184/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy:  
0.9593  
Epoch 25185/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9591  
Epoch 25186/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0307 - accuracy:  
0.9598  
Epoch 25187/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0307 - accuracy:  
0.9599  
Epoch 25188/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9597  
Epoch 25189/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0335 - accuracy:  
0.9595  
Epoch 25190/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9601  
Epoch 25191/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9603  
Epoch 25192/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9595  
Epoch 25193/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9591  
Epoch 25194/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9595  
Epoch 25195/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9592  
Epoch 25196/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9601  
Epoch 25197/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9596  
Epoch 25198/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9586  
Epoch 25199/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9605  
Epoch 25200/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9601  
Epoch 25201/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9594  
Epoch 25202/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9602  
Epoch 25203/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0310 - accuracy:  
0.9596  
Epoch 25204/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0320 - accuracy:  
0.9588  
Epoch 25205/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9596  
Epoch 25206/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0313 - accuracy:  
0.9595  
Epoch 25207/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0322 - accuracy:  
0.9595  
Epoch 25208/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0317 - accuracy:  
0.9595  
Epoch 25209/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9597  
Epoch 25210/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9595  
Epoch 25211/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9598  
Epoch 25212/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9593  
Epoch 25213/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0311 - accuracy:  
0.9591  
Epoch 25214/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0318 - accuracy:  
0.9594  
Epoch 25215/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0314 - accuracy:  
0.9599  
Epoch 25216/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9599  
Epoch 25217/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9600  
Epoch 25218/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9604  
Epoch 25219/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9588  
Epoch 25220/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9601  
Epoch 25221/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9597  
Epoch 25222/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0308 - accuracy:  
0.9586  
Epoch 25223/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0307 - accuracy:  
0.9599  
Epoch 25224/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9605  
Epoch 25225/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9601  
Epoch 25226/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9596  
Epoch 25227/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9600  
Epoch 25228/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9594  
Epoch 25229/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9601  
Epoch 25230/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0307 - accuracy:  
0.9601  
Epoch 25231/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9593  
Epoch 25232/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9592  
Epoch 25233/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0303 - accuracy:  
0.9609  
Epoch 25234/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0303 - accuracy:  
0.9600  
Epoch 25235/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9591  
Epoch 25236/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9598  
Epoch 25237/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9597  
Epoch 25238/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9594  
Epoch 25239/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9590  
Epoch 25240/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9596  
Epoch 25241/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9592  
Epoch 25242/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0301 - accuracy:  
0.9592  
Epoch 25243/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0306 - accuracy:  
0.9594  
Epoch 25244/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9592  
Epoch 25245/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9595  
Epoch 25246/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9609  
Epoch 25247/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9595  
Epoch 25248/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0311 - accuracy:  
0.9606  
Epoch 25249/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9604  
Epoch 25250/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9594  
Epoch 25251/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9602  
Epoch 25252/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9589  
Epoch 25253/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9590  
Epoch 25254/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9596  
Epoch 25255/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy:  
0.9591  
Epoch 25256/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9599  
Epoch 25257/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9598  
Epoch 25258/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9602  
Epoch 25259/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9593  
Epoch 25260/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0297 - accuracy:  
0.9588  
Epoch 25261/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9597  
Epoch 25262/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9602  
Epoch 25263/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9591  
Epoch 25264/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9601  
Epoch 25265/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9601  
Epoch 25266/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9591  
Epoch 25267/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0309 - accuracy:  
0.9595  
Epoch 25268/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9599  
Epoch 25269/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0308 - accuracy:  
0.9597  
Epoch 25270/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0315 - accuracy:  
0.9591  
Epoch 25271/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9590  
Epoch 25272/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0321 - accuracy:  
0.9595  
Epoch 25273/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0322 - accuracy:  
0.9604  
Epoch 25274/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0345 - accuracy:  
0.9594  
Epoch 25275/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0349 - accuracy:  
0.9598  
Epoch 25276/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0344 - accuracy:  
0.9593  
Epoch 25277/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0338 - accuracy:  
0.9593  
Epoch 25278/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy:  
0.9589  
Epoch 25279/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9603  
Epoch 25280/100000



2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy:  
0.9599  
Epoch 25281/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9602  
Epoch 25282/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0313 - accuracy:  
0.9594  
Epoch 25283/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0310 - accuracy:  
0.9592  
Epoch 25284/100000  
2/2 [=====] - 0s 130ms/step - loss: 0.0310 - accuracy:  
0.9590  
Epoch 25285/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0302 - accuracy:  
0.9596  
Epoch 25286/100000  
2/2 [=====] - 0s 130ms/step - loss: 0.0301 - accuracy:  
0.9594  
Epoch 25287/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0308 - accuracy:  
0.9598  
Epoch 25288/100000  
2/2 [=====] - 0s 126ms/step - loss: 0.0307 - accuracy:  
0.9598  
Epoch 25289/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0305 - accuracy:  
0.9599  
Epoch 25290/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9586  
Epoch 25291/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0311 - accuracy:  
0.9597  
Epoch 25292/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9599  
Epoch 25293/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9592  
Epoch 25294/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9595  
Epoch 25295/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9601  
Epoch 25296/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9599  
Epoch 25297/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9608  
Epoch 25298/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy: 0.9599  
Epoch 25299/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0303 - accuracy: 0.9593  
Epoch 25300/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy: 0.9602  
Epoch 25301/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy: 0.9594  
Epoch 25302/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0303 - accuracy: 0.9593  
Epoch 25303/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9595  
Epoch 25304/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9597  
Epoch 25305/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9598  
Epoch 25306/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9607  
Epoch 25307/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy: 0.9591  
Epoch 25308/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy: 0.9590  
Epoch 25309/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy: 0.9603  
Epoch 25310/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0302 - accuracy: 0.9595  
Epoch 25311/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9598  
Epoch 25312/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9598  
Epoch 25313/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy: 0.9592  
Epoch 25314/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9597  
Epoch 25315/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9596  
Epoch 25316/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9592  
Epoch 25317/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9600  
Epoch 25318/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy: 0.9603  
Epoch 25319/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9601  
Epoch 25320/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0298 - accuracy: 0.9595  
Epoch 25321/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9587  
Epoch 25322/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy: 0.9600  
Epoch 25323/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy: 0.9595  
Epoch 25324/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy: 0.9605  
Epoch 25325/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy: 0.9602  
Epoch 25326/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9590  
Epoch 25327/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy: 0.9599  
Epoch 25328/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9601  
Epoch 25329/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9610  
Epoch 25330/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0301 - accuracy:  
0.9597  
Epoch 25331/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9601  
Epoch 25332/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9601  
Epoch 25333/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0300 - accuracy:  
0.9590  
Epoch 25334/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9595  
Epoch 25335/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0304 - accuracy:  
0.9593  
Epoch 25336/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9607  
Epoch 25337/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9602  
Epoch 25338/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9599  
Epoch 25339/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9597  
Epoch 25340/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9593  
Epoch 25341/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9603  
Epoch 25342/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9590  
Epoch 25343/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9598  
Epoch 25344/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0303 - accuracy:  
0.9595  
Epoch 25345/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9604  
Epoch 25346/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9594  
Epoch 25347/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9597  
Epoch 25348/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9597  
Epoch 25349/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9605  
Epoch 25350/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0301 - accuracy:  
0.9582  
Epoch 25351/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9594  
Epoch 25352/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0301 - accuracy:  
0.9604  
Epoch 25353/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9591  
Epoch 25354/100000  
2/2 [=====] - 0s 127ms/step - loss: 0.0308 - accuracy:  
0.9604  
Epoch 25355/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9599  
Epoch 25356/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9601  
Epoch 25357/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9600  
Epoch 25358/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9590  
Epoch 25359/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9602  
Epoch 25360/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9589  
 Epoch 25361/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9603  
 Epoch 25362/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9601  
 Epoch 25363/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy: 0.9607  
 Epoch 25364/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy: 0.9591  
 Epoch 25365/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9603  
 Epoch 25366/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9590  
 Epoch 25367/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9591  
 Epoch 25368/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy: 0.9588  
 Epoch 25369/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy: 0.9594  
 Epoch 25370/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9596  
 Epoch 25371/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy: 0.9606  
 Epoch 25372/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0307 - accuracy: 0.9601  
 Epoch 25373/100000  
 2/2 [=====] - 0s 122ms/step - loss: 0.0309 - accuracy: 0.9598  
 Epoch 25374/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy: 0.9598  
 Epoch 25375/100000  
 2/2 [=====] - 0s 124ms/step - loss: 0.0307 - accuracy: 0.9604  
 Epoch 25376/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9597  
 Epoch 25377/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0323 - accuracy: 0.9587  
 Epoch 25378/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9596  
 Epoch 25379/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9589  
 Epoch 25380/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy: 0.9599  
 Epoch 25381/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9592  
 Epoch 25382/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy: 0.9597  
 Epoch 25383/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9591  
 Epoch 25384/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy: 0.9602  
 Epoch 25385/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0319 - accuracy: 0.9599  
 Epoch 25386/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9606  
 Epoch 25387/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy: 0.9596  
 Epoch 25388/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy: 0.9589  
 Epoch 25389/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy: 0.9610  
 Epoch 25390/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9596  
 Epoch 25391/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9604  
 Epoch 25392/100000

2/2 [=====] - 0s 120ms/step - loss: 0.0311 - accuracy: 0.9596  
 Epoch 25393/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy: 0.9598  
 Epoch 25394/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9598  
 Epoch 25395/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy: 0.9600  
 Epoch 25396/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy: 0.9590  
 Epoch 25397/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0302 - accuracy: 0.9595  
 Epoch 25398/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy: 0.9597  
 Epoch 25399/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy: 0.9589  
 Epoch 25400/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy: 0.9600  
 Epoch 25401/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9594  
 Epoch 25402/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9595  
 Epoch 25403/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy: 0.9602  
 Epoch 25404/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9602  
 Epoch 25405/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy: 0.9594  
 Epoch 25406/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy: 0.9604  
 Epoch 25407/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9596  
 Epoch 25408/100000



2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy: 0.9597  
Epoch 25409/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy: 0.9595  
Epoch 25410/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0310 - accuracy: 0.9604  
Epoch 25411/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0301 - accuracy: 0.9595  
Epoch 25412/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy: 0.9598  
Epoch 25413/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9601  
Epoch 25414/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9598  
Epoch 25415/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy: 0.9595  
Epoch 25416/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy: 0.9591  
Epoch 25417/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy: 0.9610  
Epoch 25418/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9598  
Epoch 25419/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9592  
Epoch 25420/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9603  
Epoch 25421/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9582  
Epoch 25422/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy: 0.9591  
Epoch 25423/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9588  
Epoch 25424/100000

2/2 [=====] - 0s 119ms/step - loss: 0.0307 - accuracy:  
0.9603  
Epoch 25425/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0309 - accuracy:  
0.9602  
Epoch 25426/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9599  
Epoch 25427/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9587  
Epoch 25428/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0300 - accuracy:  
0.9603  
Epoch 25429/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9596  
Epoch 25430/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9590  
Epoch 25431/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9591  
Epoch 25432/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9598  
Epoch 25433/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9585  
Epoch 25434/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9590  
Epoch 25435/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy:  
0.9603  
Epoch 25436/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9585  
Epoch 25437/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9592  
Epoch 25438/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9599  
Epoch 25439/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9593  
Epoch 25440/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9601  
Epoch 25441/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9605  
Epoch 25442/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0306 - accuracy:  
0.9590  
Epoch 25443/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9587  
Epoch 25444/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9608  
Epoch 25445/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9596  
Epoch 25446/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0313 - accuracy:  
0.9605  
Epoch 25447/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0310 - accuracy:  
0.9600  
Epoch 25448/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9599  
Epoch 25449/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9599  
Epoch 25450/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9589  
Epoch 25451/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9589  
Epoch 25452/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9602  
Epoch 25453/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0306 - accuracy:  
0.9607  
Epoch 25454/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9589  
Epoch 25455/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9596  
Epoch 25456/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9597  
Epoch 25457/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy: 0.9591  
Epoch 25458/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9604  
Epoch 25459/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9593  
Epoch 25460/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0307 - accuracy: 0.9596  
Epoch 25461/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9607  
Epoch 25462/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9599  
Epoch 25463/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy: 0.9591  
Epoch 25464/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9592  
Epoch 25465/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy: 0.9588  
Epoch 25466/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9599  
Epoch 25467/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9605  
Epoch 25468/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9591  
Epoch 25469/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9596  
Epoch 25470/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy: 0.9584  
Epoch 25471/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9590  
Epoch 25472/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9597  
Epoch 25473/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9598  
Epoch 25474/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0308 - accuracy:  
0.9587  
Epoch 25475/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0300 - accuracy:  
0.9596  
Epoch 25476/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9598  
Epoch 25477/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9593  
Epoch 25478/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9601  
Epoch 25479/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0298 - accuracy:  
0.9595  
Epoch 25480/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0302 - accuracy:  
0.9588  
Epoch 25481/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9594  
Epoch 25482/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9604  
Epoch 25483/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0305 - accuracy:  
0.9591  
Epoch 25484/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9601  
Epoch 25485/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0300 - accuracy:  
0.9597  
Epoch 25486/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9607  
Epoch 25487/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0300 - accuracy:  
0.9593  
Epoch 25488/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9602  
Epoch 25489/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9589  
Epoch 25490/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9598  
Epoch 25491/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9602  
Epoch 25492/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9587  
Epoch 25493/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9604  
Epoch 25494/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9599  
Epoch 25495/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9596  
Epoch 25496/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9600  
Epoch 25497/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9601  
Epoch 25498/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9606  
Epoch 25499/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9581  
Epoch 25500/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9595  
Epoch 25501/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9598  
Epoch 25502/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9596  
Epoch 25503/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9594  
Epoch 25504/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9594  
Epoch 25505/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0303 - accuracy:  
0.9598  
Epoch 25506/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9601  
Epoch 25507/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9590  
Epoch 25508/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9604  
Epoch 25509/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0339 - accuracy:  
0.9596  
Epoch 25510/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0342 - accuracy:  
0.9599  
Epoch 25511/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9587  
Epoch 25512/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0318 - accuracy:  
0.9596  
Epoch 25513/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0320 - accuracy:  
0.9595  
Epoch 25514/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0325 - accuracy:  
0.9586  
Epoch 25515/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy:  
0.9604  
Epoch 25516/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0333 - accuracy:  
0.9603  
Epoch 25517/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9605  
Epoch 25518/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy:  
0.9598  
Epoch 25519/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0321 - accuracy:  
0.9600  
Epoch 25520/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9597  
Epoch 25521/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0308 - accuracy: 0.9600  
Epoch 25522/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy: 0.9593  
Epoch 25523/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy: 0.9602  
Epoch 25524/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy: 0.9606  
Epoch 25525/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0315 - accuracy: 0.9607  
Epoch 25526/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy: 0.9594  
Epoch 25527/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0309 - accuracy: 0.9609  
Epoch 25528/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy: 0.9600  
Epoch 25529/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9585  
Epoch 25530/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy: 0.9596  
Epoch 25531/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9595  
Epoch 25532/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0303 - accuracy: 0.9595  
Epoch 25533/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9606  
Epoch 25534/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9593  
Epoch 25535/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0310 - accuracy: 0.9603  
Epoch 25536/100000



2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9587  
Epoch 25537/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0307 - accuracy:  
0.9599  
Epoch 25538/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0309 - accuracy:  
0.9593  
Epoch 25539/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9589  
Epoch 25540/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0308 - accuracy:  
0.9596  
Epoch 25541/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9597  
Epoch 25542/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0311 - accuracy:  
0.9605  
Epoch 25543/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9588  
Epoch 25544/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9597  
Epoch 25545/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9588  
Epoch 25546/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9598  
Epoch 25547/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0308 - accuracy:  
0.9606  
Epoch 25548/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9600  
Epoch 25549/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9594  
Epoch 25550/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9598  
Epoch 25551/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9595  
Epoch 25552/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9596  
Epoch 25553/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9600  
Epoch 25554/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy: 0.9593  
Epoch 25555/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9593  
Epoch 25556/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9596  
Epoch 25557/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9595  
Epoch 25558/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy: 0.9607  
Epoch 25559/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9596  
Epoch 25560/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy: 0.9595  
Epoch 25561/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9597  
Epoch 25562/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy: 0.9599  
Epoch 25563/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0303 - accuracy: 0.9587  
Epoch 25564/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9596  
Epoch 25565/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0306 - accuracy: 0.9601  
Epoch 25566/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9599  
Epoch 25567/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy: 0.9595  
Epoch 25568/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9604  
Epoch 25569/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9601  
Epoch 25570/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9599  
Epoch 25571/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9592  
Epoch 25572/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9602  
Epoch 25573/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9603  
Epoch 25574/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9598  
Epoch 25575/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9600  
Epoch 25576/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0303 - accuracy:  
0.9602  
Epoch 25577/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9589  
Epoch 25578/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9597  
Epoch 25579/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9600  
Epoch 25580/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9588  
Epoch 25581/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9580  
Epoch 25582/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9597  
Epoch 25583/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9602  
Epoch 25584/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9594  
Epoch 25585/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0311 - accuracy: 0.9597  
Epoch 25586/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0309 - accuracy: 0.9600  
Epoch 25587/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9600  
Epoch 25588/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy: 0.9590  
Epoch 25589/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy: 0.9585  
Epoch 25590/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy: 0.9594  
Epoch 25591/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy: 0.9591  
Epoch 25592/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy: 0.9591  
Epoch 25593/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy: 0.9609  
Epoch 25594/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy: 0.9593  
Epoch 25595/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9589  
Epoch 25596/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy: 0.9599  
Epoch 25597/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0308 - accuracy: 0.9597  
Epoch 25598/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy: 0.9605  
Epoch 25599/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy: 0.9593  
Epoch 25600/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9602  
Epoch 25601/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9606  
Epoch 25602/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9597  
Epoch 25603/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0310 - accuracy:  
0.9598  
Epoch 25604/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9599  
Epoch 25605/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0305 - accuracy:  
0.9593  
Epoch 25606/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9601  
Epoch 25607/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0307 - accuracy:  
0.9598  
Epoch 25608/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0309 - accuracy:  
0.9593  
Epoch 25609/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9591  
Epoch 25610/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9592  
Epoch 25611/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9601  
Epoch 25612/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9605  
Epoch 25613/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9589  
Epoch 25614/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9590  
Epoch 25615/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9594  
Epoch 25616/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9596  
Epoch 25617/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9598  
Epoch 25618/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9599  
Epoch 25619/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0306 - accuracy:  
0.9587  
Epoch 25620/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9605  
Epoch 25621/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9599  
Epoch 25622/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9598  
Epoch 25623/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9597  
Epoch 25624/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9602  
Epoch 25625/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9593  
Epoch 25626/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9597  
Epoch 25627/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9598  
Epoch 25628/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9590  
Epoch 25629/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9605  
Epoch 25630/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0303 - accuracy:  
0.9599  
Epoch 25631/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9596  
Epoch 25632/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9598  
 Epoch 25633/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9593  
 Epoch 25634/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy: 0.9585  
 Epoch 25635/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9597  
 Epoch 25636/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9586  
 Epoch 25637/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy: 0.9605  
 Epoch 25638/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9597  
 Epoch 25639/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy: 0.9599  
 Epoch 25640/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9589  
 Epoch 25641/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9599  
 Epoch 25642/100000  
 2/2 [=====] - 0s 120ms/step - loss: 0.0311 - accuracy: 0.9599  
 Epoch 25643/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9595  
 Epoch 25644/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9602  
 Epoch 25645/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy: 0.9603  
 Epoch 25646/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy: 0.9595  
 Epoch 25647/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9593  
 Epoch 25648/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9598  
Epoch 25649/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9598  
Epoch 25650/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9601  
Epoch 25651/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0313 - accuracy:  
0.9596  
Epoch 25652/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9591  
Epoch 25653/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9600  
Epoch 25654/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0308 - accuracy:  
0.9595  
Epoch 25655/100000  
2/2 [=====] - 0s 126ms/step - loss: 0.0326 - accuracy:  
0.9605  
Epoch 25656/100000  
2/2 [=====] - 0s 127ms/step - loss: 0.0331 - accuracy:  
0.9596  
Epoch 25657/100000  
2/2 [=====] - 0s 131ms/step - loss: 0.0313 - accuracy:  
0.9596  
Epoch 25658/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0314 - accuracy:  
0.9602  
Epoch 25659/100000  
2/2 [=====] - 0s 127ms/step - loss: 0.0323 - accuracy:  
0.9591  
Epoch 25660/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0337 - accuracy:  
0.9594  
Epoch 25661/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9596  
Epoch 25662/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9602  
Epoch 25663/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9606  
Epoch 25664/100000



2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9598  
Epoch 25665/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9605  
Epoch 25666/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9598  
Epoch 25667/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9600  
Epoch 25668/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9587  
Epoch 25669/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9595  
Epoch 25670/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9597  
Epoch 25671/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9598  
Epoch 25672/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9596  
Epoch 25673/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9596  
Epoch 25674/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9606  
Epoch 25675/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0305 - accuracy:  
0.9596  
Epoch 25676/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9591  
Epoch 25677/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9591  
Epoch 25678/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9598  
Epoch 25679/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9601  
Epoch 25680/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9602  
Epoch 25681/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9601  
Epoch 25682/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9593  
Epoch 25683/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9587  
Epoch 25684/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9597  
Epoch 25685/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9599  
Epoch 25686/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9601  
Epoch 25687/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9604  
Epoch 25688/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9607  
Epoch 25689/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9592  
Epoch 25690/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9594  
Epoch 25691/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9586  
Epoch 25692/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0311 - accuracy:  
0.9593  
Epoch 25693/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9597  
Epoch 25694/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9599  
Epoch 25695/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9603  
Epoch 25696/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy: 0.9596  
Epoch 25697/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy: 0.9592  
Epoch 25698/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy: 0.9594  
Epoch 25699/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy: 0.9589  
Epoch 25700/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy: 0.9600  
Epoch 25701/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy: 0.9603  
Epoch 25702/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9592  
Epoch 25703/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9592  
Epoch 25704/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy: 0.9592  
Epoch 25705/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9592  
Epoch 25706/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy: 0.9594  
Epoch 25707/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9598  
Epoch 25708/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0304 - accuracy: 0.9601  
Epoch 25709/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy: 0.9594  
Epoch 25710/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy: 0.9604  
Epoch 25711/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy: 0.9605  
Epoch 25712/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9603  
Epoch 25713/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9597  
Epoch 25714/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0301 - accuracy:  
0.9595  
Epoch 25715/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9589  
Epoch 25716/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0305 - accuracy:  
0.9603  
Epoch 25717/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9601  
Epoch 25718/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9601  
Epoch 25719/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9608  
Epoch 25720/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9587  
Epoch 25721/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9602  
Epoch 25722/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9595  
Epoch 25723/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9604  
Epoch 25724/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9600  
Epoch 25725/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9599  
Epoch 25726/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9602  
Epoch 25727/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9608  
Epoch 25728/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9590  
Epoch 25729/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy:  
0.9606  
Epoch 25730/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy:  
0.9587  
Epoch 25731/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9599  
Epoch 25732/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0309 - accuracy:  
0.9607  
Epoch 25733/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0310 - accuracy:  
0.9594  
Epoch 25734/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0330 - accuracy:  
0.9609  
Epoch 25735/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9596  
Epoch 25736/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9595  
Epoch 25737/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9597  
Epoch 25738/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0314 - accuracy:  
0.9603  
Epoch 25739/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0314 - accuracy:  
0.9599  
Epoch 25740/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy:  
0.9603  
Epoch 25741/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9594  
Epoch 25742/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9596  
Epoch 25743/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9596  
Epoch 25744/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9605  
Epoch 25745/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9596  
Epoch 25746/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0319 - accuracy:  
0.9596  
Epoch 25747/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9596  
Epoch 25748/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0309 - accuracy:  
0.9603  
Epoch 25749/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9585  
Epoch 25750/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9597  
Epoch 25751/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9598  
Epoch 25752/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9606  
Epoch 25753/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9598  
Epoch 25754/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9601  
Epoch 25755/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9600  
Epoch 25756/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9591  
Epoch 25757/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9591  
Epoch 25758/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9591  
Epoch 25759/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9595  
Epoch 25760/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9601  
Epoch 25761/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9591  
Epoch 25762/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9595  
Epoch 25763/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9594  
Epoch 25764/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9595  
Epoch 25765/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0300 - accuracy: 0.9602  
Epoch 25766/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0302 - accuracy: 0.9592  
Epoch 25767/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy: 0.9594  
Epoch 25768/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9594  
Epoch 25769/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0297 - accuracy: 0.9596  
Epoch 25770/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9599  
Epoch 25771/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9597  
Epoch 25772/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0294 - accuracy: 0.9587  
Epoch 25773/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy: 0.9597  
Epoch 25774/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy: 0.9606  
Epoch 25775/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9590  
Epoch 25776/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0305 - accuracy:  
0.9602  
Epoch 25777/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9599  
Epoch 25778/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9590  
Epoch 25779/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9593  
Epoch 25780/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9604  
Epoch 25781/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9601  
Epoch 25782/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9590  
Epoch 25783/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9588  
Epoch 25784/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9599  
Epoch 25785/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy:  
0.9592  
Epoch 25786/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9606  
Epoch 25787/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9611  
Epoch 25788/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9599  
Epoch 25789/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9598  
Epoch 25790/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0305 - accuracy:  
0.9600  
Epoch 25791/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9593  
Epoch 25792/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9597  
Epoch 25793/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9599  
Epoch 25794/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9590  
Epoch 25795/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9591  
Epoch 25796/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9599  
Epoch 25797/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0300 - accuracy:  
0.9602  
Epoch 25798/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9595  
Epoch 25799/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9597  
Epoch 25800/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9591  
Epoch 25801/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9589  
Epoch 25802/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9597  
Epoch 25803/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9594  
Epoch 25804/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0305 - accuracy:  
0.9593  
Epoch 25805/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9593  
Epoch 25806/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0317 - accuracy:  
0.9607  
Epoch 25807/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0313 - accuracy:  
0.9594  
Epoch 25808/100000

2/2 [=====] - 0s 120ms/step - loss: 0.0307 - accuracy:  
0.9595  
Epoch 25809/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9601  
Epoch 25810/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0310 - accuracy:  
0.9593  
Epoch 25811/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0312 - accuracy:  
0.9595  
Epoch 25812/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9591  
Epoch 25813/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9594  
Epoch 25814/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9595  
Epoch 25815/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9599  
Epoch 25816/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0303 - accuracy:  
0.9601  
Epoch 25817/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9595  
Epoch 25818/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9595  
Epoch 25819/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9598  
Epoch 25820/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9604  
Epoch 25821/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9598  
Epoch 25822/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9600  
Epoch 25823/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9596  
Epoch 25824/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy: 0.9600  
Epoch 25825/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9588  
Epoch 25826/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9591  
Epoch 25827/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9590  
Epoch 25828/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy: 0.9597  
Epoch 25829/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy: 0.9593  
Epoch 25830/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9594  
Epoch 25831/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0299 - accuracy: 0.9600  
Epoch 25832/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy: 0.9590  
Epoch 25833/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9606  
Epoch 25834/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy: 0.9603  
Epoch 25835/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9599  
Epoch 25836/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0302 - accuracy: 0.9596  
Epoch 25837/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy: 0.9598  
Epoch 25838/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0300 - accuracy: 0.9595  
Epoch 25839/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9597  
Epoch 25840/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9586  
Epoch 25841/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9593  
Epoch 25842/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9607  
Epoch 25843/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9599  
Epoch 25844/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9594  
Epoch 25845/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9588  
Epoch 25846/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9592  
Epoch 25847/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0302 - accuracy:  
0.9590  
Epoch 25848/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9590  
Epoch 25849/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9599  
Epoch 25850/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9599  
Epoch 25851/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0304 - accuracy:  
0.9598  
Epoch 25852/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9601  
Epoch 25853/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9592  
Epoch 25854/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9590  
Epoch 25855/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9590  
Epoch 25856/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy: 0.9597  
Epoch 25857/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy: 0.9599  
Epoch 25858/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy: 0.9599  
Epoch 25859/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy: 0.9593  
Epoch 25860/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9594  
Epoch 25861/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0304 - accuracy: 0.9602  
Epoch 25862/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy: 0.9600  
Epoch 25863/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy: 0.9597  
Epoch 25864/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0312 - accuracy: 0.9594  
Epoch 25865/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy: 0.9601  
Epoch 25866/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9592  
Epoch 25867/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9598  
Epoch 25868/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9601  
Epoch 25869/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy: 0.9590  
Epoch 25870/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy: 0.9598  
Epoch 25871/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy: 0.9599  
Epoch 25872/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9589  
Epoch 25873/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9599  
Epoch 25874/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9604  
Epoch 25875/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9596  
Epoch 25876/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy:  
0.9603  
Epoch 25877/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy:  
0.9594  
Epoch 25878/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9594  
Epoch 25879/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0311 - accuracy:  
0.9612  
Epoch 25880/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0326 - accuracy:  
0.9596  
Epoch 25881/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0328 - accuracy:  
0.9594  
Epoch 25882/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9597  
Epoch 25883/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0314 - accuracy:  
0.9595  
Epoch 25884/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0314 - accuracy:  
0.9599  
Epoch 25885/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0315 - accuracy:  
0.9593  
Epoch 25886/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9598  
Epoch 25887/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9587  
Epoch 25888/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0303 - accuracy:  
0.9597  
Epoch 25889/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9594  
Epoch 25890/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9596  
Epoch 25891/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9597  
Epoch 25892/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9593  
Epoch 25893/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9597  
Epoch 25894/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9596  
Epoch 25895/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9591  
Epoch 25896/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9601  
Epoch 25897/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0307 - accuracy:  
0.9601  
Epoch 25898/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9602  
Epoch 25899/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9595  
Epoch 25900/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0299 - accuracy:  
0.9585  
Epoch 25901/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy:  
0.9595  
Epoch 25902/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9597  
Epoch 25903/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9592  
Epoch 25904/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9593  
Epoch 25905/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9596  
Epoch 25906/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9596  
Epoch 25907/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9599  
Epoch 25908/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9595  
Epoch 25909/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9603  
Epoch 25910/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0300 - accuracy:  
0.9593  
Epoch 25911/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9591  
Epoch 25912/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9593  
Epoch 25913/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9597  
Epoch 25914/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9597  
Epoch 25915/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9601  
Epoch 25916/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9599  
Epoch 25917/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9600  
Epoch 25918/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9600  
Epoch 25919/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9591  
Epoch 25920/100000



2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9606  
Epoch 25921/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9594  
Epoch 25922/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0311 - accuracy:  
0.9597  
Epoch 25923/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0309 - accuracy:  
0.9593  
Epoch 25924/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9599  
Epoch 25925/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9598  
Epoch 25926/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9604  
Epoch 25927/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9598  
Epoch 25928/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9589  
Epoch 25929/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9585  
Epoch 25930/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy:  
0.9593  
Epoch 25931/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9604  
Epoch 25932/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9602  
Epoch 25933/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9586  
Epoch 25934/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9599  
Epoch 25935/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9595  
Epoch 25936/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9593  
Epoch 25937/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9598  
Epoch 25938/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9598  
Epoch 25939/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9596  
Epoch 25940/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0317 - accuracy:  
0.9600  
Epoch 25941/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0315 - accuracy:  
0.9598  
Epoch 25942/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy:  
0.9602  
Epoch 25943/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9602  
Epoch 25944/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9595  
Epoch 25945/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9601  
Epoch 25946/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9594  
Epoch 25947/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0317 - accuracy:  
0.9592  
Epoch 25948/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9599  
Epoch 25949/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9588  
Epoch 25950/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9592  
Epoch 25951/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9595  
Epoch 25952/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9596  
Epoch 25953/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9589  
Epoch 25954/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9591  
Epoch 25955/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9601  
Epoch 25956/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9604  
Epoch 25957/100000  
2/2 [=====] - 0s 127ms/step - loss: 0.0301 - accuracy:  
0.9586  
Epoch 25958/100000  
2/2 [=====] - 0s 133ms/step - loss: 0.0300 - accuracy:  
0.9593  
Epoch 25959/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0304 - accuracy:  
0.9593  
Epoch 25960/100000  
2/2 [=====] - 0s 129ms/step - loss: 0.0301 - accuracy:  
0.9599  
Epoch 25961/100000  
2/2 [=====] - 0s 126ms/step - loss: 0.0304 - accuracy:  
0.9596  
Epoch 25962/100000  
2/2 [=====] - 0s 136ms/step - loss: 0.0304 - accuracy:  
0.9602  
Epoch 25963/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9593  
Epoch 25964/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9598  
Epoch 25965/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9595  
Epoch 25966/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0302 - accuracy:  
0.9593  
Epoch 25967/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9604  
Epoch 25968/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0307 - accuracy: 0.9604  
Epoch 25969/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0304 - accuracy: 0.9602  
Epoch 25970/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy: 0.9591  
Epoch 25971/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9586  
Epoch 25972/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0303 - accuracy: 0.9594  
Epoch 25973/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy: 0.9599  
Epoch 25974/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9597  
Epoch 25975/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9595  
Epoch 25976/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy: 0.9596  
Epoch 25977/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9606  
Epoch 25978/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9608  
Epoch 25979/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9602  
Epoch 25980/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy: 0.9596  
Epoch 25981/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0319 - accuracy: 0.9603  
Epoch 25982/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy: 0.9604  
Epoch 25983/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0310 - accuracy: 0.9603  
Epoch 25984/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9594  
Epoch 25985/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0331 - accuracy:  
0.9595  
Epoch 25986/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9592  
Epoch 25987/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0310 - accuracy:  
0.9593  
Epoch 25988/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9591  
Epoch 25989/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9600  
Epoch 25990/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy:  
0.9596  
Epoch 25991/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy:  
0.9601  
Epoch 25992/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0310 - accuracy:  
0.9596  
Epoch 25993/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9601  
Epoch 25994/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9599  
Epoch 25995/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0311 - accuracy:  
0.9595  
Epoch 25996/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy:  
0.9599  
Epoch 25997/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9600  
Epoch 25998/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9594  
Epoch 25999/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9593  
Epoch 26000/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9596  
Epoch 26001/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9602  
Epoch 26002/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9608  
Epoch 26003/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9592  
Epoch 26004/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9598  
Epoch 26005/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0309 - accuracy:  
0.9591  
Epoch 26006/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9590  
Epoch 26007/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0314 - accuracy:  
0.9607  
Epoch 26008/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9588  
Epoch 26009/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9600  
Epoch 26010/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9606  
Epoch 26011/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9602  
Epoch 26012/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9602  
Epoch 26013/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9603  
Epoch 26014/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9598  
Epoch 26015/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9594  
Epoch 26016/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy:  
0.9601  
Epoch 26017/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0309 - accuracy:  
0.9589  
Epoch 26018/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9595  
Epoch 26019/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9597  
Epoch 26020/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9593  
Epoch 26021/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0311 - accuracy:  
0.9594  
Epoch 26022/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9602  
Epoch 26023/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9601  
Epoch 26024/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9597  
Epoch 26025/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0303 - accuracy:  
0.9593  
Epoch 26026/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9591  
Epoch 26027/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9597  
Epoch 26028/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9591  
Epoch 26029/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9589  
Epoch 26030/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9597  
Epoch 26031/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9597  
Epoch 26032/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9591  
Epoch 26033/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9593  
Epoch 26034/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0297 - accuracy:  
0.9601  
Epoch 26035/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9598  
Epoch 26036/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9594  
Epoch 26037/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9598  
Epoch 26038/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9601  
Epoch 26039/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9588  
Epoch 26040/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0298 - accuracy:  
0.9603  
Epoch 26041/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9596  
Epoch 26042/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy:  
0.9605  
Epoch 26043/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0301 - accuracy:  
0.9590  
Epoch 26044/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9596  
Epoch 26045/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9598  
Epoch 26046/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0306 - accuracy:  
0.9606  
Epoch 26047/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9596  
Epoch 26048/100000



2/2 [=====] - 0s 118ms/step - loss: 0.0304 - accuracy: 0.9597  
Epoch 26049/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9598  
Epoch 26050/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy: 0.9606  
Epoch 26051/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9597  
Epoch 26052/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy: 0.9596  
Epoch 26053/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9605  
Epoch 26054/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy: 0.9588  
Epoch 26055/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy: 0.9594  
Epoch 26056/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy: 0.9599  
Epoch 26057/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9589  
Epoch 26058/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9593  
Epoch 26059/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy: 0.9589  
Epoch 26060/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0305 - accuracy: 0.9603  
Epoch 26061/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9597  
Epoch 26062/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy: 0.9590  
Epoch 26063/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy: 0.9593  
Epoch 26064/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9594  
Epoch 26065/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9598  
Epoch 26066/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9598  
Epoch 26067/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9600  
Epoch 26068/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9598  
Epoch 26069/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9598  
Epoch 26070/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9600  
Epoch 26071/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9593  
Epoch 26072/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9592  
Epoch 26073/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9583  
Epoch 26074/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9600  
Epoch 26075/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9597  
Epoch 26076/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0304 - accuracy:  
0.9592  
Epoch 26077/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9591  
Epoch 26078/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9599  
Epoch 26079/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9603  
Epoch 26080/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9588  
 Epoch 26081/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy: 0.9602  
 Epoch 26082/100000  
 2/2 [=====] - 0s 121ms/step - loss: 0.0308 - accuracy: 0.9596  
 Epoch 26083/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy: 0.9595  
 Epoch 26084/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9603  
 Epoch 26085/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9604  
 Epoch 26086/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0306 - accuracy: 0.9591  
 Epoch 26087/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy: 0.9594  
 Epoch 26088/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9591  
 Epoch 26089/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9592  
 Epoch 26090/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy: 0.9595  
 Epoch 26091/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9596  
 Epoch 26092/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy: 0.9591  
 Epoch 26093/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy: 0.9596  
 Epoch 26094/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9601  
 Epoch 26095/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy: 0.9591  
 Epoch 26096/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9594  
Epoch 26097/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0305 - accuracy:  
0.9591  
Epoch 26098/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9598  
Epoch 26099/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0301 - accuracy:  
0.9594  
Epoch 26100/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9595  
Epoch 26101/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9591  
Epoch 26102/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9596  
Epoch 26103/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9600  
Epoch 26104/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9595  
Epoch 26105/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9592  
Epoch 26106/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9593  
Epoch 26107/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9594  
Epoch 26108/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9591  
Epoch 26109/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9604  
Epoch 26110/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9592  
Epoch 26111/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9591  
Epoch 26112/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0298 - accuracy:  
0.9592  
Epoch 26113/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9594  
Epoch 26114/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9595  
Epoch 26115/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9590  
Epoch 26116/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9587  
Epoch 26117/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9597  
Epoch 26118/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9596  
Epoch 26119/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0296 - accuracy:  
0.9591  
Epoch 26120/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy:  
0.9594  
Epoch 26121/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9597  
Epoch 26122/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9602  
Epoch 26123/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9601  
Epoch 26124/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9593  
Epoch 26125/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9598  
Epoch 26126/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9593  
Epoch 26127/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9597  
Epoch 26128/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9589  
Epoch 26129/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy:  
0.9598  
Epoch 26130/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9594  
Epoch 26131/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9601  
Epoch 26132/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9588  
Epoch 26133/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9597  
Epoch 26134/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9587  
Epoch 26135/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9595  
Epoch 26136/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0302 - accuracy:  
0.9596  
Epoch 26137/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9598  
Epoch 26138/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9606  
Epoch 26139/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9601  
Epoch 26140/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9595  
Epoch 26141/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy:  
0.9587  
Epoch 26142/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9593  
Epoch 26143/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9593  
Epoch 26144/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0321 - accuracy:  
0.9595  
Epoch 26145/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9603  
Epoch 26146/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9596  
Epoch 26147/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9596  
Epoch 26148/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9587  
Epoch 26149/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9595  
Epoch 26150/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9603  
Epoch 26151/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9591  
Epoch 26152/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9604  
Epoch 26153/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9601  
Epoch 26154/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9586  
Epoch 26155/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9602  
Epoch 26156/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9589  
Epoch 26157/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0324 - accuracy:  
0.9601  
Epoch 26158/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy:  
0.9597  
Epoch 26159/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9600  
Epoch 26160/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9591  
Epoch 26161/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy:  
0.9588  
Epoch 26162/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy:  
0.9594  
Epoch 26163/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9587  
Epoch 26164/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0302 - accuracy:  
0.9598  
Epoch 26165/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9595  
Epoch 26166/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9605  
Epoch 26167/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9600  
Epoch 26168/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9605  
Epoch 26169/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9595  
Epoch 26170/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9603  
Epoch 26171/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9599  
Epoch 26172/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9599  
Epoch 26173/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9599  
Epoch 26174/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9587  
Epoch 26175/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9593  
Epoch 26176/100000



2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9595  
Epoch 26177/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9596  
Epoch 26178/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9611  
Epoch 26179/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0309 - accuracy:  
0.9602  
Epoch 26180/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9595  
Epoch 26181/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9596  
Epoch 26182/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9603  
Epoch 26183/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9599  
Epoch 26184/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9605  
Epoch 26185/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0305 - accuracy:  
0.9605  
Epoch 26186/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0304 - accuracy:  
0.9605  
Epoch 26187/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9597  
Epoch 26188/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9592  
Epoch 26189/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9593  
Epoch 26190/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9601  
Epoch 26191/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy:  
0.9595  
Epoch 26192/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9602  
Epoch 26193/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9597  
Epoch 26194/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9592  
Epoch 26195/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9590  
Epoch 26196/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0297 - accuracy:  
0.9592  
Epoch 26197/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9600  
Epoch 26198/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy:  
0.9608  
Epoch 26199/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0302 - accuracy:  
0.9604  
Epoch 26200/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9591  
Epoch 26201/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0300 - accuracy:  
0.9595  
Epoch 26202/100000  
2/2 [=====] - 0s 126ms/step - loss: 0.0300 - accuracy:  
0.9598  
Epoch 26203/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0307 - accuracy:  
0.9610  
Epoch 26204/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0301 - accuracy:  
0.9602  
Epoch 26205/100000  
2/2 [=====] - 0s 131ms/step - loss: 0.0298 - accuracy:  
0.9596  
Epoch 26206/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0302 - accuracy:  
0.9604  
Epoch 26207/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0308 - accuracy:  
0.9600  
Epoch 26208/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy: 0.9601  
Epoch 26209/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy: 0.9587  
Epoch 26210/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0299 - accuracy: 0.9594  
Epoch 26211/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0303 - accuracy: 0.9608  
Epoch 26212/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0300 - accuracy: 0.9596  
Epoch 26213/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9594  
Epoch 26214/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9595  
Epoch 26215/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9588  
Epoch 26216/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9594  
Epoch 26217/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy: 0.9597  
Epoch 26218/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9605  
Epoch 26219/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy: 0.9598  
Epoch 26220/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0309 - accuracy: 0.9603  
Epoch 26221/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9600  
Epoch 26222/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0315 - accuracy: 0.9593  
Epoch 26223/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9596  
Epoch 26224/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9603  
Epoch 26225/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0301 - accuracy:  
0.9596  
Epoch 26226/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0299 - accuracy:  
0.9594  
Epoch 26227/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0301 - accuracy:  
0.9599  
Epoch 26228/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9607  
Epoch 26229/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0315 - accuracy:  
0.9603  
Epoch 26230/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0310 - accuracy:  
0.9587  
Epoch 26231/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9595  
Epoch 26232/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9608  
Epoch 26233/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9595  
Epoch 26234/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9588  
Epoch 26235/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9602  
Epoch 26236/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9597  
Epoch 26237/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9588  
Epoch 26238/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9598  
Epoch 26239/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0301 - accuracy:  
0.9599  
Epoch 26240/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9594  
Epoch 26241/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy: 0.9600  
Epoch 26242/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0305 - accuracy: 0.9599  
Epoch 26243/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0324 - accuracy: 0.9597  
Epoch 26244/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0325 - accuracy: 0.9596  
Epoch 26245/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0319 - accuracy: 0.9604  
Epoch 26246/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9592  
Epoch 26247/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy: 0.9588  
Epoch 26248/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy: 0.9593  
Epoch 26249/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy: 0.9596  
Epoch 26250/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9591  
Epoch 26251/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9598  
Epoch 26252/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9600  
Epoch 26253/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy: 0.9599  
Epoch 26254/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9596  
Epoch 26255/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0307 - accuracy: 0.9595  
Epoch 26256/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0314 - accuracy: 0.9607  
Epoch 26257/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0309 - accuracy: 0.9596  
Epoch 26258/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0313 - accuracy: 0.9598  
Epoch 26259/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0316 - accuracy: 0.9609  
Epoch 26260/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9595  
Epoch 26261/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy: 0.9595  
Epoch 26262/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9592  
Epoch 26263/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9586  
Epoch 26264/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9589  
Epoch 26265/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9602  
Epoch 26266/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy: 0.9586  
Epoch 26267/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9597  
Epoch 26268/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0308 - accuracy: 0.9594  
Epoch 26269/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9607  
Epoch 26270/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy: 0.9601  
Epoch 26271/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9598  
Epoch 26272/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy: 0.9594  
Epoch 26273/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy: 0.9596  
Epoch 26274/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0301 - accuracy: 0.9602  
Epoch 26275/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy: 0.9594  
Epoch 26276/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy: 0.9598  
Epoch 26277/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9600  
Epoch 26278/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0302 - accuracy: 0.9594  
Epoch 26279/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9600  
Epoch 26280/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9598  
Epoch 26281/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9601  
Epoch 26282/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0301 - accuracy: 0.9596  
Epoch 26283/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9590  
Epoch 26284/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy: 0.9595  
Epoch 26285/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9590  
Epoch 26286/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0305 - accuracy: 0.9599  
Epoch 26287/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0306 - accuracy: 0.9602  
Epoch 26288/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9584  
Epoch 26289/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9602  
Epoch 26290/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9599  
Epoch 26291/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9604  
Epoch 26292/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9598  
Epoch 26293/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9592  
Epoch 26294/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9594  
Epoch 26295/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9594  
Epoch 26296/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9596  
Epoch 26297/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0296 - accuracy:  
0.9588  
Epoch 26298/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0302 - accuracy:  
0.9593  
Epoch 26299/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9595  
Epoch 26300/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9595  
Epoch 26301/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9595  
Epoch 26302/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9601  
Epoch 26303/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9591  
Epoch 26304/100000



2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9598  
Epoch 26305/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9594  
Epoch 26306/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9605  
Epoch 26307/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9589  
Epoch 26308/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9595  
Epoch 26309/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9605  
Epoch 26310/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9583  
Epoch 26311/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9593  
Epoch 26312/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9594  
Epoch 26313/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9599  
Epoch 26314/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0314 - accuracy:  
0.9585  
Epoch 26315/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy:  
0.9593  
Epoch 26316/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9602  
Epoch 26317/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy:  
0.9589  
Epoch 26318/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9592  
Epoch 26319/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9593  
Epoch 26320/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9588  
Epoch 26321/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy:  
0.9596  
Epoch 26322/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy:  
0.9600  
Epoch 26323/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9602  
Epoch 26324/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9599  
Epoch 26325/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9594  
Epoch 26326/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9591  
Epoch 26327/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9592  
Epoch 26328/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9603  
Epoch 26329/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9592  
Epoch 26330/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9592  
Epoch 26331/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9588  
Epoch 26332/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9590  
Epoch 26333/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9598  
Epoch 26334/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9597  
Epoch 26335/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0305 - accuracy:  
0.9605  
Epoch 26336/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9602  
Epoch 26337/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9598  
Epoch 26338/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9600  
Epoch 26339/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0298 - accuracy:  
0.9596  
Epoch 26340/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9596  
Epoch 26341/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9598  
Epoch 26342/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9589  
Epoch 26343/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9596  
Epoch 26344/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9591  
Epoch 26345/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9592  
Epoch 26346/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9592  
Epoch 26347/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9594  
Epoch 26348/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9594  
Epoch 26349/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9597  
Epoch 26350/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9594  
Epoch 26351/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9598  
Epoch 26352/100000

2/2 [=====] - 0s 122ms/step - loss: 0.0300 - accuracy:  
0.9599  
Epoch 26353/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9599  
Epoch 26354/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9598  
Epoch 26355/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9605  
Epoch 26356/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9591  
Epoch 26357/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9591  
Epoch 26358/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9601  
Epoch 26359/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9602  
Epoch 26360/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9595  
Epoch 26361/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9597  
Epoch 26362/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9590  
Epoch 26363/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9595  
Epoch 26364/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9589  
Epoch 26365/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0308 - accuracy:  
0.9601  
Epoch 26366/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9597  
Epoch 26367/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9591  
Epoch 26368/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9590  
Epoch 26369/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9594  
Epoch 26370/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9601  
Epoch 26371/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy:  
0.9601  
Epoch 26372/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0304 - accuracy:  
0.9601  
Epoch 26373/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9600  
Epoch 26374/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9598  
Epoch 26375/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9598  
Epoch 26376/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9601  
Epoch 26377/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy:  
0.9595  
Epoch 26378/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0314 - accuracy:  
0.9599  
Epoch 26379/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9588  
Epoch 26380/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9585  
Epoch 26381/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0329 - accuracy:  
0.9592  
Epoch 26382/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9591  
Epoch 26383/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9604  
Epoch 26384/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0316 - accuracy:  
0.9594  
Epoch 26385/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0344 - accuracy:  
0.9608  
Epoch 26386/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy:  
0.9608  
Epoch 26387/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy:  
0.9592  
Epoch 26388/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy:  
0.9603  
Epoch 26389/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9593  
Epoch 26390/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9592  
Epoch 26391/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9597  
Epoch 26392/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9591  
Epoch 26393/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy:  
0.9588  
Epoch 26394/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9591  
Epoch 26395/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0308 - accuracy:  
0.9590  
Epoch 26396/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9597  
Epoch 26397/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9601  
Epoch 26398/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0305 - accuracy:  
0.9597  
Epoch 26399/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9594  
Epoch 26400/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0302 - accuracy:  
0.9587  
Epoch 26401/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9607  
Epoch 26402/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9599  
Epoch 26403/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9595  
Epoch 26404/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0306 - accuracy:  
0.9602  
Epoch 26405/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9596  
Epoch 26406/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9605  
Epoch 26407/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9595  
Epoch 26408/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9595  
Epoch 26409/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9598  
Epoch 26410/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0310 - accuracy:  
0.9596  
Epoch 26411/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9601  
Epoch 26412/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9606  
Epoch 26413/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9600  
Epoch 26414/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9599  
Epoch 26415/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9593  
Epoch 26416/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9600  
Epoch 26417/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9593  
Epoch 26418/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9597  
Epoch 26419/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9599  
Epoch 26420/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0309 - accuracy:  
0.9604  
Epoch 26421/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9591  
Epoch 26422/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9593  
Epoch 26423/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9595  
Epoch 26424/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9599  
Epoch 26425/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0303 - accuracy:  
0.9600  
Epoch 26426/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9603  
Epoch 26427/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9602  
Epoch 26428/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9595  
Epoch 26429/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0309 - accuracy:  
0.9596  
Epoch 26430/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy:  
0.9600  
Epoch 26431/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0311 - accuracy:  
0.9600  
Epoch 26432/100000



2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9600  
Epoch 26433/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9596  
Epoch 26434/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9597  
Epoch 26435/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9591  
Epoch 26436/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy:  
0.9611  
Epoch 26437/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9603  
Epoch 26438/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9600  
Epoch 26439/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0302 - accuracy:  
0.9601  
Epoch 26440/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9598  
Epoch 26441/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9598  
Epoch 26442/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9596  
Epoch 26443/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9602  
Epoch 26444/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9598  
Epoch 26445/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9602  
Epoch 26446/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9596  
Epoch 26447/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0303 - accuracy:  
0.9589  
Epoch 26448/100000

2/2 [=====] - 0s 119ms/step - loss: 0.0301 - accuracy: 0.9599  
Epoch 26449/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9591  
Epoch 26450/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy: 0.9597  
Epoch 26451/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9590  
Epoch 26452/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9606  
Epoch 26453/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy: 0.9602  
Epoch 26454/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy: 0.9593  
Epoch 26455/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0300 - accuracy: 0.9594  
Epoch 26456/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy: 0.9596  
Epoch 26457/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0303 - accuracy: 0.9602  
Epoch 26458/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9595  
Epoch 26459/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9602  
Epoch 26460/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9597  
Epoch 26461/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0305 - accuracy: 0.9602  
Epoch 26462/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0303 - accuracy: 0.9594  
Epoch 26463/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy: 0.9588  
Epoch 26464/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9605  
Epoch 26465/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9600  
Epoch 26466/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9602  
Epoch 26467/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0329 - accuracy:  
0.9600  
Epoch 26468/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9594  
Epoch 26469/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9607  
Epoch 26470/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9603  
Epoch 26471/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0338 - accuracy:  
0.9599  
Epoch 26472/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9599  
Epoch 26473/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0323 - accuracy:  
0.9591  
Epoch 26474/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9599  
Epoch 26475/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9592  
Epoch 26476/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9587  
Epoch 26477/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9604  
Epoch 26478/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0315 - accuracy:  
0.9597  
Epoch 26479/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9600  
Epoch 26480/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9588  
Epoch 26481/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9594  
Epoch 26482/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9598  
Epoch 26483/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9588  
Epoch 26484/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9613  
Epoch 26485/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9598  
Epoch 26486/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0300 - accuracy:  
0.9606  
Epoch 26487/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9610  
Epoch 26488/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0320 - accuracy:  
0.9597  
Epoch 26489/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9603  
Epoch 26490/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0308 - accuracy:  
0.9594  
Epoch 26491/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9599  
Epoch 26492/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0305 - accuracy:  
0.9592  
Epoch 26493/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0303 - accuracy:  
0.9593  
Epoch 26494/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9589  
Epoch 26495/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9589  
Epoch 26496/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9594  
Epoch 26497/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0305 - accuracy:  
0.9598  
Epoch 26498/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9598  
Epoch 26499/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9596  
Epoch 26500/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9595  
Epoch 26501/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9597  
Epoch 26502/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9588  
Epoch 26503/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9607  
Epoch 26504/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9592  
Epoch 26505/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9587  
Epoch 26506/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9592  
Epoch 26507/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy:  
0.9588  
Epoch 26508/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9586  
Epoch 26509/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9600  
Epoch 26510/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9590  
Epoch 26511/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0315 - accuracy:  
0.9606  
Epoch 26512/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy: 0.9594  
Epoch 26513/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9606  
Epoch 26514/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9606  
Epoch 26515/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9597  
Epoch 26516/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy: 0.9592  
Epoch 26517/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9595  
Epoch 26518/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy: 0.9588  
Epoch 26519/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy: 0.9598  
Epoch 26520/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9583  
Epoch 26521/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy: 0.9596  
Epoch 26522/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy: 0.9602  
Epoch 26523/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9599  
Epoch 26524/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy: 0.9595  
Epoch 26525/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9588  
Epoch 26526/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9603  
Epoch 26527/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0308 - accuracy: 0.9592  
Epoch 26528/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9599  
Epoch 26529/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9592  
Epoch 26530/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9606  
Epoch 26531/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9595  
Epoch 26532/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9605  
Epoch 26533/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9596  
Epoch 26534/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9590  
Epoch 26535/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9598  
Epoch 26536/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9598  
Epoch 26537/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9597  
Epoch 26538/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0305 - accuracy:  
0.9588  
Epoch 26539/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9592  
Epoch 26540/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9600  
Epoch 26541/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0299 - accuracy:  
0.9593  
Epoch 26542/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9597  
Epoch 26543/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9607  
Epoch 26544/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9599  
Epoch 26545/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9594  
Epoch 26546/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9596  
Epoch 26547/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9605  
Epoch 26548/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0308 - accuracy:  
0.9603  
Epoch 26549/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0308 - accuracy:  
0.9598  
Epoch 26550/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9602  
Epoch 26551/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9592  
Epoch 26552/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9596  
Epoch 26553/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9586  
Epoch 26554/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9589  
Epoch 26555/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9598  
Epoch 26556/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9597  
Epoch 26557/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9593  
Epoch 26558/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9601  
Epoch 26559/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9602  
Epoch 26560/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9588  
Epoch 26561/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9600  
Epoch 26562/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0316 - accuracy:  
0.9593  
Epoch 26563/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy:  
0.9592  
Epoch 26564/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9596  
Epoch 26565/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0310 - accuracy:  
0.9596  
Epoch 26566/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0306 - accuracy:  
0.9594  
Epoch 26567/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9604  
Epoch 26568/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9594  
Epoch 26569/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9599  
Epoch 26570/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9604  
Epoch 26571/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9602  
Epoch 26572/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9592  
Epoch 26573/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9598  
Epoch 26574/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0304 - accuracy:  
0.9608  
Epoch 26575/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9593  
Epoch 26576/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9591  
Epoch 26577/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9596  
Epoch 26578/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0309 - accuracy: 0.9595  
Epoch 26579/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9601  
Epoch 26580/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy: 0.9597  
Epoch 26581/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy: 0.9586  
Epoch 26582/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy: 0.9595  
Epoch 26583/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy: 0.9600  
Epoch 26584/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy: 0.9602  
Epoch 26585/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9595  
Epoch 26586/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy: 0.9598  
Epoch 26587/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy: 0.9595  
Epoch 26588/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy: 0.9596  
Epoch 26589/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0304 - accuracy: 0.9596  
Epoch 26590/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy: 0.9598  
Epoch 26591/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9593  
Epoch 26592/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9607  
Epoch 26593/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0304 - accuracy:  
0.9589  
Epoch 26594/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9589  
Epoch 26595/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9588  
Epoch 26596/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9607  
Epoch 26597/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9599  
Epoch 26598/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9593  
Epoch 26599/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9594  
Epoch 26600/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9599  
Epoch 26601/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9596  
Epoch 26602/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0319 - accuracy:  
0.9597  
Epoch 26603/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9585  
Epoch 26604/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9600  
Epoch 26605/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy:  
0.9607  
Epoch 26606/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9588  
Epoch 26607/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0315 - accuracy:  
0.9594  
Epoch 26608/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0314 - accuracy:  
0.9601  
Epoch 26609/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy:  
0.9605  
Epoch 26610/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9587  
Epoch 26611/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9590  
Epoch 26612/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9602  
Epoch 26613/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9606  
Epoch 26614/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0333 - accuracy:  
0.9595  
Epoch 26615/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9599  
Epoch 26616/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0324 - accuracy:  
0.9597  
Epoch 26617/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9602  
Epoch 26618/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9594  
Epoch 26619/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0314 - accuracy:  
0.9594  
Epoch 26620/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0311 - accuracy:  
0.9595  
Epoch 26621/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0311 - accuracy:  
0.9591  
Epoch 26622/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9595  
Epoch 26623/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9606  
Epoch 26624/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0310 - accuracy:  
0.9596  
Epoch 26625/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9590  
Epoch 26626/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9590  
Epoch 26627/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9613  
Epoch 26628/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9591  
Epoch 26629/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9595  
Epoch 26630/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0305 - accuracy:  
0.9599  
Epoch 26631/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9599  
Epoch 26632/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9597  
Epoch 26633/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy:  
0.9596  
Epoch 26634/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9590  
Epoch 26635/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9594  
Epoch 26636/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9596  
Epoch 26637/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9597  
Epoch 26638/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9591  
Epoch 26639/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9601  
Epoch 26640/100000

2/2 [=====] - 0s 119ms/step - loss: 0.0306 - accuracy: 0.9596  
Epoch 26641/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9605  
Epoch 26642/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy: 0.9594  
Epoch 26643/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0304 - accuracy: 0.9601  
Epoch 26644/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy: 0.9590  
Epoch 26645/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy: 0.9584  
Epoch 26646/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9597  
Epoch 26647/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9596  
Epoch 26648/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9595  
Epoch 26649/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0303 - accuracy: 0.9604  
Epoch 26650/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy: 0.9590  
Epoch 26651/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy: 0.9593  
Epoch 26652/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0304 - accuracy: 0.9602  
Epoch 26653/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy: 0.9601  
Epoch 26654/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9597  
Epoch 26655/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0303 - accuracy: 0.9601  
Epoch 26656/100000

2/2 [=====] - 0s 120ms/step - loss: 0.0312 - accuracy:  
0.9593  
Epoch 26657/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9601  
Epoch 26658/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy:  
0.9604  
Epoch 26659/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9596  
Epoch 26660/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy:  
0.9612  
Epoch 26661/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9592  
Epoch 26662/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9600  
Epoch 26663/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9603  
Epoch 26664/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy:  
0.9592  
Epoch 26665/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0310 - accuracy:  
0.9599  
Epoch 26666/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9602  
Epoch 26667/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9597  
Epoch 26668/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0304 - accuracy:  
0.9601  
Epoch 26669/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9593  
Epoch 26670/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0314 - accuracy:  
0.9595  
Epoch 26671/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9593  
Epoch 26672/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9595  
Epoch 26673/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0318 - accuracy:  
0.9589  
Epoch 26674/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9593  
Epoch 26675/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9609  
Epoch 26676/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9594  
Epoch 26677/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9601  
Epoch 26678/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy:  
0.9585  
Epoch 26679/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0299 - accuracy:  
0.9583  
Epoch 26680/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9603  
Epoch 26681/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9605  
Epoch 26682/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0314 - accuracy:  
0.9604  
Epoch 26683/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9602  
Epoch 26684/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9598  
Epoch 26685/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9593  
Epoch 26686/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9599  
Epoch 26687/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9593  
Epoch 26688/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9600  
Epoch 26689/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0320 - accuracy:  
0.9599  
Epoch 26690/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9599  
Epoch 26691/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9598  
Epoch 26692/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9599  
Epoch 26693/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9600  
Epoch 26694/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9595  
Epoch 26695/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9594  
Epoch 26696/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9602  
Epoch 26697/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9592  
Epoch 26698/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9596  
Epoch 26699/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9595  
Epoch 26700/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0305 - accuracy:  
0.9597  
Epoch 26701/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9596  
Epoch 26702/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0299 - accuracy:  
0.9601  
Epoch 26703/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9600  
Epoch 26704/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy: 0.9597  
Epoch 26705/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy: 0.9590  
Epoch 26706/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9589  
Epoch 26707/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy: 0.9588  
Epoch 26708/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy: 0.9604  
Epoch 26709/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy: 0.9598  
Epoch 26710/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy: 0.9600  
Epoch 26711/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9598  
Epoch 26712/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9593  
Epoch 26713/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9599  
Epoch 26714/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy: 0.9595  
Epoch 26715/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0298 - accuracy: 0.9585  
Epoch 26716/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9591  
Epoch 26717/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9598  
Epoch 26718/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9610  
Epoch 26719/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9594  
Epoch 26720/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9600  
Epoch 26721/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0299 - accuracy:  
0.9597  
Epoch 26722/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9594  
Epoch 26723/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9588  
Epoch 26724/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9591  
Epoch 26725/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0314 - accuracy:  
0.9599  
Epoch 26726/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9604  
Epoch 26727/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9583  
Epoch 26728/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0331 - accuracy:  
0.9595  
Epoch 26729/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0316 - accuracy:  
0.9599  
Epoch 26730/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0306 - accuracy:  
0.9603  
Epoch 26731/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9585  
Epoch 26732/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9607  
Epoch 26733/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9591  
Epoch 26734/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9589  
Epoch 26735/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9597  
Epoch 26736/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy: 0.9600  
Epoch 26737/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9594  
Epoch 26738/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy: 0.9595  
Epoch 26739/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0308 - accuracy: 0.9600  
Epoch 26740/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9603  
Epoch 26741/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy: 0.9601  
Epoch 26742/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0304 - accuracy: 0.9600  
Epoch 26743/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy: 0.9599  
Epoch 26744/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9603  
Epoch 26745/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9601  
Epoch 26746/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9602  
Epoch 26747/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy: 0.9603  
Epoch 26748/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9594  
Epoch 26749/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0313 - accuracy: 0.9595  
Epoch 26750/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy: 0.9596  
Epoch 26751/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0304 - accuracy: 0.9599  
Epoch 26752/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9603  
Epoch 26753/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9591  
Epoch 26754/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9594  
Epoch 26755/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9598  
Epoch 26756/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9598  
Epoch 26757/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9599  
Epoch 26758/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9600  
Epoch 26759/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy:  
0.9600  
Epoch 26760/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9590  
Epoch 26761/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0301 - accuracy:  
0.9604  
Epoch 26762/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9598  
Epoch 26763/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9592  
Epoch 26764/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9592  
Epoch 26765/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9599  
Epoch 26766/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy:  
0.9609  
Epoch 26767/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9588  
Epoch 26768/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy: 0.9596  
Epoch 26769/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy: 0.9591  
Epoch 26770/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9601  
Epoch 26771/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9600  
Epoch 26772/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy: 0.9598  
Epoch 26773/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9599  
Epoch 26774/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy: 0.9603  
Epoch 26775/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0304 - accuracy: 0.9597  
Epoch 26776/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0306 - accuracy: 0.9599  
Epoch 26777/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy: 0.9590  
Epoch 26778/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy: 0.9596  
Epoch 26779/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy: 0.9591  
Epoch 26780/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9599  
Epoch 26781/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0300 - accuracy: 0.9596  
Epoch 26782/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy: 0.9591  
Epoch 26783/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9592  
Epoch 26784/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9601  
Epoch 26785/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy: 0.9605  
Epoch 26786/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9600  
Epoch 26787/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9596  
Epoch 26788/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9607  
Epoch 26789/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy: 0.9597  
Epoch 26790/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0305 - accuracy: 0.9591  
Epoch 26791/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0307 - accuracy: 0.9589  
Epoch 26792/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9587  
Epoch 26793/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9584  
Epoch 26794/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9589  
Epoch 26795/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy: 0.9600  
Epoch 26796/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9595  
Epoch 26797/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy: 0.9597  
Epoch 26798/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0302 - accuracy: 0.9599  
Epoch 26799/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9587  
Epoch 26800/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9603  
Epoch 26801/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9590  
Epoch 26802/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9591  
Epoch 26803/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0314 - accuracy:  
0.9598  
Epoch 26804/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9597  
Epoch 26805/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0312 - accuracy:  
0.9593  
Epoch 26806/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9598  
Epoch 26807/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0302 - accuracy:  
0.9599  
Epoch 26808/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9597  
Epoch 26809/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0309 - accuracy:  
0.9597  
Epoch 26810/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0306 - accuracy:  
0.9595  
Epoch 26811/100000  
2/2 [=====] - 0s 129ms/step - loss: 0.0301 - accuracy:  
0.9596  
Epoch 26812/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0305 - accuracy:  
0.9590  
Epoch 26813/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0298 - accuracy:  
0.9589  
Epoch 26814/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0310 - accuracy:  
0.9590  
Epoch 26815/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0306 - accuracy:  
0.9592  
Epoch 26816/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9598  
Epoch 26817/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9593  
Epoch 26818/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9597  
Epoch 26819/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9596  
Epoch 26820/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9596  
Epoch 26821/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9597  
Epoch 26822/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy: 0.9590  
Epoch 26823/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy: 0.9604  
Epoch 26824/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy: 0.9600  
Epoch 26825/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0315 - accuracy: 0.9597  
Epoch 26826/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy: 0.9604  
Epoch 26827/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0310 - accuracy: 0.9598  
Epoch 26828/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0304 - accuracy: 0.9603  
Epoch 26829/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9600  
Epoch 26830/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0312 - accuracy: 0.9603  
Epoch 26831/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9600  
Epoch 26832/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy:  
0.9590  
Epoch 26833/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0304 - accuracy:  
0.9594  
Epoch 26834/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9591  
Epoch 26835/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0311 - accuracy:  
0.9597  
Epoch 26836/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9597  
Epoch 26837/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9595  
Epoch 26838/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9596  
Epoch 26839/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9596  
Epoch 26840/100000  
2/2 [=====] - 0s 126ms/step - loss: 0.0302 - accuracy:  
0.9597  
Epoch 26841/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0307 - accuracy:  
0.9595  
Epoch 26842/100000  
2/2 [=====] - 0s 133ms/step - loss: 0.0307 - accuracy:  
0.9604  
Epoch 26843/100000  
2/2 [=====] - 0s 127ms/step - loss: 0.0300 - accuracy:  
0.9583  
Epoch 26844/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0303 - accuracy:  
0.9584  
Epoch 26845/100000  
2/2 [=====] - 0s 134ms/step - loss: 0.0303 - accuracy:  
0.9595  
Epoch 26846/100000  
2/2 [=====] - 0s 126ms/step - loss: 0.0307 - accuracy:  
0.9592  
Epoch 26847/100000  
2/2 [=====] - 0s 129ms/step - loss: 0.0301 - accuracy:  
0.9597  
Epoch 26848/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9602  
Epoch 26849/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9601  
Epoch 26850/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9594  
Epoch 26851/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9598  
Epoch 26852/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9589  
Epoch 26853/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9587  
Epoch 26854/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9593  
Epoch 26855/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9605  
Epoch 26856/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9594  
Epoch 26857/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9592  
Epoch 26858/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0309 - accuracy:  
0.9596  
Epoch 26859/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9596  
Epoch 26860/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9597  
Epoch 26861/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0304 - accuracy:  
0.9600  
Epoch 26862/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0302 - accuracy:  
0.9596  
Epoch 26863/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0308 - accuracy:  
0.9596  
Epoch 26864/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9596  
Epoch 26865/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy: 0.9590  
Epoch 26866/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9596  
Epoch 26867/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy: 0.9609  
Epoch 26868/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9598  
Epoch 26869/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0306 - accuracy: 0.9611  
Epoch 26870/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0304 - accuracy: 0.9596  
Epoch 26871/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9607  
Epoch 26872/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9605  
Epoch 26873/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9594  
Epoch 26874/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy: 0.9595  
Epoch 26875/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy: 0.9599  
Epoch 26876/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy: 0.9597  
Epoch 26877/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9589  
Epoch 26878/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9596  
Epoch 26879/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy: 0.9601  
Epoch 26880/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9599  
Epoch 26881/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9601  
Epoch 26882/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy: 0.9587  
Epoch 26883/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9592  
Epoch 26884/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy: 0.9592  
Epoch 26885/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9601  
Epoch 26886/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9604  
Epoch 26887/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9592  
Epoch 26888/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy: 0.9596  
Epoch 26889/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy: 0.9594  
Epoch 26890/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9588  
Epoch 26891/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0304 - accuracy: 0.9598  
Epoch 26892/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0305 - accuracy: 0.9588  
Epoch 26893/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0306 - accuracy: 0.9599  
Epoch 26894/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy: 0.9590  
Epoch 26895/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy: 0.9598  
Epoch 26896/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy: 0.9599  
Epoch 26897/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9601  
Epoch 26898/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy: 0.9599  
Epoch 26899/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy: 0.9597  
Epoch 26900/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy: 0.9594  
Epoch 26901/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9596  
Epoch 26902/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9596  
Epoch 26903/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy: 0.9594  
Epoch 26904/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9598  
Epoch 26905/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9592  
Epoch 26906/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9594  
Epoch 26907/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy: 0.9591  
Epoch 26908/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9593  
Epoch 26909/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy: 0.9589  
Epoch 26910/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0303 - accuracy: 0.9595  
Epoch 26911/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy: 0.9594  
Epoch 26912/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0307 - accuracy: 0.9595  
Epoch 26913/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy: 0.9599  
Epoch 26914/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9594  
Epoch 26915/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy: 0.9593  
Epoch 26916/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy: 0.9599  
Epoch 26917/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9598  
Epoch 26918/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9591  
Epoch 26919/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy: 0.9603  
Epoch 26920/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9600  
Epoch 26921/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9598  
Epoch 26922/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy: 0.9592  
Epoch 26923/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy: 0.9600  
Epoch 26924/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0307 - accuracy: 0.9595  
Epoch 26925/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9600  
Epoch 26926/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9599  
Epoch 26927/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy: 0.9606  
Epoch 26928/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9595  
Epoch 26929/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0304 - accuracy: 0.9607  
Epoch 26930/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy: 0.9590  
Epoch 26931/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy: 0.9607  
Epoch 26932/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9587  
Epoch 26933/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9591  
Epoch 26934/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9590  
Epoch 26935/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy: 0.9592  
Epoch 26936/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9599  
Epoch 26937/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy: 0.9596  
Epoch 26938/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9603  
Epoch 26939/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy: 0.9597  
Epoch 26940/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9600  
Epoch 26941/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9600  
Epoch 26942/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9596  
Epoch 26943/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9594  
Epoch 26944/100000



2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9593  
Epoch 26945/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9595  
Epoch 26946/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9593  
Epoch 26947/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9590  
Epoch 26948/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9594  
Epoch 26949/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0298 - accuracy:  
0.9594  
Epoch 26950/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0298 - accuracy:  
0.9595  
Epoch 26951/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9594  
Epoch 26952/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9604  
Epoch 26953/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0300 - accuracy:  
0.9606  
Epoch 26954/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9599  
Epoch 26955/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9602  
Epoch 26956/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9592  
Epoch 26957/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0308 - accuracy:  
0.9600  
Epoch 26958/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9603  
Epoch 26959/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9598  
Epoch 26960/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9601  
Epoch 26961/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9597  
Epoch 26962/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0312 - accuracy:  
0.9602  
Epoch 26963/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0311 - accuracy:  
0.9592  
Epoch 26964/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0330 - accuracy:  
0.9605  
Epoch 26965/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy:  
0.9591  
Epoch 26966/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0318 - accuracy:  
0.9597  
Epoch 26967/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0317 - accuracy:  
0.9599  
Epoch 26968/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy:  
0.9601  
Epoch 26969/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0315 - accuracy:  
0.9586  
Epoch 26970/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9605  
Epoch 26971/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9603  
Epoch 26972/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9603  
Epoch 26973/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9594  
Epoch 26974/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9602  
Epoch 26975/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0311 - accuracy:  
0.9603  
Epoch 26976/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9594  
Epoch 26977/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9589  
Epoch 26978/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9595  
Epoch 26979/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9595  
Epoch 26980/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9593  
Epoch 26981/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9596  
Epoch 26982/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0302 - accuracy:  
0.9593  
Epoch 26983/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9598  
Epoch 26984/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0301 - accuracy:  
0.9603  
Epoch 26985/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9599  
Epoch 26986/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9598  
Epoch 26987/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9597  
Epoch 26988/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9598  
Epoch 26989/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9604  
Epoch 26990/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9588  
Epoch 26991/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9596  
Epoch 26992/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9594  
Epoch 26993/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9604  
Epoch 26994/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9595  
Epoch 26995/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9594  
Epoch 26996/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0300 - accuracy:  
0.9596  
Epoch 26997/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9590  
Epoch 26998/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0298 - accuracy:  
0.9591  
Epoch 26999/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0300 - accuracy:  
0.9599  
Epoch 27000/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9585  
Epoch 27001/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9608  
Epoch 27002/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9587  
Epoch 27003/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9592  
Epoch 27004/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9595  
Epoch 27005/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9609  
Epoch 27006/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9604  
Epoch 27007/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0309 - accuracy:  
0.9596  
Epoch 27008/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9589  
Epoch 27009/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9590  
Epoch 27010/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9599  
Epoch 27011/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9593  
Epoch 27012/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9604  
Epoch 27013/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9593  
Epoch 27014/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9601  
Epoch 27015/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0311 - accuracy:  
0.9591  
Epoch 27016/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9591  
Epoch 27017/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9592  
Epoch 27018/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy:  
0.9590  
Epoch 27019/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9605  
Epoch 27020/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9598  
Epoch 27021/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0301 - accuracy:  
0.9594  
Epoch 27022/100000  
2/2 [=====] - 0s 126ms/step - loss: 0.0307 - accuracy:  
0.9599  
Epoch 27023/100000  
2/2 [=====] - 0s 126ms/step - loss: 0.0300 - accuracy:  
0.9597  
Epoch 27024/100000

2/2 [=====] - 0s 129ms/step - loss: 0.0304 - accuracy:  
0.9593  
Epoch 27025/100000  
2/2 [=====] - 0s 128ms/step - loss: 0.0304 - accuracy:  
0.9603  
Epoch 27026/100000  
2/2 [=====] - 0s 130ms/step - loss: 0.0301 - accuracy:  
0.9598  
Epoch 27027/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0305 - accuracy:  
0.9601  
Epoch 27028/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0298 - accuracy:  
0.9604  
Epoch 27029/100000  
2/2 [=====] - 0s 128ms/step - loss: 0.0311 - accuracy:  
0.9596  
Epoch 27030/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9594  
Epoch 27031/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9604  
Epoch 27032/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9588  
Epoch 27033/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9600  
Epoch 27034/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0319 - accuracy:  
0.9596  
Epoch 27035/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0323 - accuracy:  
0.9584  
Epoch 27036/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0407 - accuracy:  
0.9600  
Epoch 27037/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0428 - accuracy:  
0.9596  
Epoch 27038/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0430 - accuracy:  
0.9595  
Epoch 27039/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0418 - accuracy:  
0.9592  
Epoch 27040/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0380 - accuracy:  
0.9592  
Epoch 27041/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0393 - accuracy:  
0.9600  
Epoch 27042/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0376 - accuracy:  
0.9595  
Epoch 27043/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0378 - accuracy:  
0.9597  
Epoch 27044/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0383 - accuracy:  
0.9598  
Epoch 27045/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0356 - accuracy:  
0.9587  
Epoch 27046/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0347 - accuracy:  
0.9599  
Epoch 27047/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0342 - accuracy:  
0.9604  
Epoch 27048/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0336 - accuracy:  
0.9594  
Epoch 27049/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0333 - accuracy:  
0.9593  
Epoch 27050/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9593  
Epoch 27051/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9604  
Epoch 27052/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0321 - accuracy:  
0.9599  
Epoch 27053/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9598  
Epoch 27054/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9604  
Epoch 27055/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9592  
Epoch 27056/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy:  
0.9591  
Epoch 27057/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy:  
0.9600  
Epoch 27058/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9601  
Epoch 27059/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9600  
Epoch 27060/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9594  
Epoch 27061/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9600  
Epoch 27062/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9594  
Epoch 27063/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9604  
Epoch 27064/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0309 - accuracy:  
0.9600  
Epoch 27065/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9598  
Epoch 27066/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9591  
Epoch 27067/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9589  
Epoch 27068/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9597  
Epoch 27069/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9602  
Epoch 27070/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9592  
Epoch 27071/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9603  
Epoch 27072/100000



2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9598  
Epoch 27073/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9588  
Epoch 27074/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9591  
Epoch 27075/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9596  
Epoch 27076/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9596  
Epoch 27077/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9595  
Epoch 27078/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9591  
Epoch 27079/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9589  
Epoch 27080/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9598  
Epoch 27081/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9592  
Epoch 27082/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9597  
Epoch 27083/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9602  
Epoch 27084/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9604  
Epoch 27085/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9605  
Epoch 27086/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0300 - accuracy:  
0.9593  
Epoch 27087/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9593  
Epoch 27088/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9598  
Epoch 27089/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9595  
Epoch 27090/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy: 0.9592  
Epoch 27091/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy: 0.9595  
Epoch 27092/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9597  
Epoch 27093/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy: 0.9599  
Epoch 27094/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9607  
Epoch 27095/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy: 0.9599  
Epoch 27096/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9593  
Epoch 27097/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9601  
Epoch 27098/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy: 0.9596  
Epoch 27099/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9589  
Epoch 27100/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9592  
Epoch 27101/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy: 0.9594  
Epoch 27102/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy: 0.9603  
Epoch 27103/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy: 0.9587  
Epoch 27104/100000

2/2 [=====] - 0s 121ms/step - loss: 0.0303 - accuracy:  
0.9600  
Epoch 27105/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9589  
Epoch 27106/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9592  
Epoch 27107/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9599  
Epoch 27108/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9583  
Epoch 27109/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9597  
Epoch 27110/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9597  
Epoch 27111/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9600  
Epoch 27112/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9598  
Epoch 27113/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9597  
Epoch 27114/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9601  
Epoch 27115/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9593  
Epoch 27116/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9600  
Epoch 27117/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9604  
Epoch 27118/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9602  
Epoch 27119/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9604  
Epoch 27120/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9595  
Epoch 27121/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9593  
Epoch 27122/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9605  
Epoch 27123/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9592  
Epoch 27124/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9598  
Epoch 27125/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9594  
Epoch 27126/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9591  
Epoch 27127/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0302 - accuracy:  
0.9592  
Epoch 27128/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9612  
Epoch 27129/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9598  
Epoch 27130/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9588  
Epoch 27131/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9591  
Epoch 27132/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9596  
Epoch 27133/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9597  
Epoch 27134/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9602  
Epoch 27135/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0307 - accuracy:  
0.9598  
Epoch 27136/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0301 - accuracy:  
0.9587  
Epoch 27137/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0301 - accuracy:  
0.9596  
Epoch 27138/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9601  
Epoch 27139/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0306 - accuracy:  
0.9592  
Epoch 27140/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9600  
Epoch 27141/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0302 - accuracy:  
0.9598  
Epoch 27142/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9591  
Epoch 27143/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9591  
Epoch 27144/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9594  
Epoch 27145/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9596  
Epoch 27146/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9592  
Epoch 27147/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9592  
Epoch 27148/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9601  
Epoch 27149/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy:  
0.9595  
Epoch 27150/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9597  
Epoch 27151/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9598  
Epoch 27152/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9591  
 Epoch 27153/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy: 0.9596  
 Epoch 27154/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy: 0.9595  
 Epoch 27155/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9602  
 Epoch 27156/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy: 0.9595  
 Epoch 27157/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0301 - accuracy: 0.9587  
 Epoch 27158/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9597  
 Epoch 27159/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0310 - accuracy: 0.9603  
 Epoch 27160/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9592  
 Epoch 27161/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9594  
 Epoch 27162/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0300 - accuracy: 0.9598  
 Epoch 27163/100000  
 2/2 [=====] - 0s 121ms/step - loss: 0.0305 - accuracy: 0.9596  
 Epoch 27164/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9602  
 Epoch 27165/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy: 0.9599  
 Epoch 27166/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy: 0.9593  
 Epoch 27167/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy: 0.9588  
 Epoch 27168/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9591  
Epoch 27169/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9599  
Epoch 27170/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9593  
Epoch 27171/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0304 - accuracy:  
0.9593  
Epoch 27172/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9596  
Epoch 27173/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9595  
Epoch 27174/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9601  
Epoch 27175/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9588  
Epoch 27176/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9595  
Epoch 27177/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9601  
Epoch 27178/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0314 - accuracy:  
0.9604  
Epoch 27179/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy:  
0.9608  
Epoch 27180/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9598  
Epoch 27181/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9603  
Epoch 27182/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9601  
Epoch 27183/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0316 - accuracy:  
0.9596  
Epoch 27184/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9599  
Epoch 27185/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9596  
Epoch 27186/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9594  
Epoch 27187/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy:  
0.9594  
Epoch 27188/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9604  
Epoch 27189/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9603  
Epoch 27190/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9598  
Epoch 27191/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9600  
Epoch 27192/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0307 - accuracy:  
0.9604  
Epoch 27193/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9601  
Epoch 27194/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9591  
Epoch 27195/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0312 - accuracy:  
0.9595  
Epoch 27196/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9595  
Epoch 27197/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9602  
Epoch 27198/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9594  
Epoch 27199/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9589  
Epoch 27200/100000



2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy: 0.9595  
Epoch 27201/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy: 0.9589  
Epoch 27202/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy: 0.9596  
Epoch 27203/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy: 0.9603  
Epoch 27204/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0305 - accuracy: 0.9596  
Epoch 27205/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9588  
Epoch 27206/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9601  
Epoch 27207/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9591  
Epoch 27208/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy: 0.9589  
Epoch 27209/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy: 0.9597  
Epoch 27210/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy: 0.9595  
Epoch 27211/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9595  
Epoch 27212/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0310 - accuracy: 0.9590  
Epoch 27213/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9604  
Epoch 27214/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9592  
Epoch 27215/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9594  
Epoch 27216/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9595  
Epoch 27217/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9597  
Epoch 27218/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9606  
Epoch 27219/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0302 - accuracy:  
0.9593  
Epoch 27220/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9599  
Epoch 27221/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0299 - accuracy:  
0.9595  
Epoch 27222/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9593  
Epoch 27223/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9597  
Epoch 27224/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9596  
Epoch 27225/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9606  
Epoch 27226/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9599  
Epoch 27227/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9595  
Epoch 27228/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0302 - accuracy:  
0.9592  
Epoch 27229/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0299 - accuracy:  
0.9592  
Epoch 27230/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9599  
Epoch 27231/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9592  
Epoch 27232/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9592  
Epoch 27233/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9604  
Epoch 27234/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0337 - accuracy:  
0.9595  
Epoch 27235/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0350 - accuracy:  
0.9592  
Epoch 27236/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9599  
Epoch 27237/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0316 - accuracy:  
0.9599  
Epoch 27238/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0320 - accuracy:  
0.9590  
Epoch 27239/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9588  
Epoch 27240/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9604  
Epoch 27241/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9601  
Epoch 27242/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9604  
Epoch 27243/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9603  
Epoch 27244/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9594  
Epoch 27245/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9596  
Epoch 27246/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9607  
Epoch 27247/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9599  
Epoch 27248/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9594  
Epoch 27249/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9604  
Epoch 27250/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9603  
Epoch 27251/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0312 - accuracy:  
0.9610  
Epoch 27252/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9596  
Epoch 27253/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9603  
Epoch 27254/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0322 - accuracy:  
0.9596  
Epoch 27255/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9592  
Epoch 27256/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0307 - accuracy:  
0.9594  
Epoch 27257/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9597  
Epoch 27258/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9603  
Epoch 27259/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9610  
Epoch 27260/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9592  
Epoch 27261/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9592  
Epoch 27262/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9591  
Epoch 27263/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9599  
Epoch 27264/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9599  
Epoch 27265/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9598  
Epoch 27266/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0307 - accuracy:  
0.9602  
Epoch 27267/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9601  
Epoch 27268/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9594  
Epoch 27269/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9594  
Epoch 27270/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9594  
Epoch 27271/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0304 - accuracy:  
0.9591  
Epoch 27272/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9593  
Epoch 27273/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9595  
Epoch 27274/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9588  
Epoch 27275/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0312 - accuracy:  
0.9600  
Epoch 27276/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0306 - accuracy:  
0.9602  
Epoch 27277/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy:  
0.9599  
Epoch 27278/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9598  
Epoch 27279/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0312 - accuracy:  
0.9598  
Epoch 27280/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9603  
Epoch 27281/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9596  
Epoch 27282/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy:  
0.9596  
Epoch 27283/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0315 - accuracy:  
0.9596  
Epoch 27284/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9596  
Epoch 27285/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9593  
Epoch 27286/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9589  
Epoch 27287/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9593  
Epoch 27288/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9601  
Epoch 27289/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9597  
Epoch 27290/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9593  
Epoch 27291/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9593  
Epoch 27292/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9592  
Epoch 27293/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9590  
Epoch 27294/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9592  
Epoch 27295/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9603  
Epoch 27296/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9598  
Epoch 27297/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9598  
Epoch 27298/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9599  
Epoch 27299/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9593  
Epoch 27300/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9598  
Epoch 27301/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9603  
Epoch 27302/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy:  
0.9596  
Epoch 27303/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9601  
Epoch 27304/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9595  
Epoch 27305/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0320 - accuracy:  
0.9593  
Epoch 27306/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9595  
Epoch 27307/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9598  
Epoch 27308/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9598  
Epoch 27309/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9594  
Epoch 27310/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9594  
Epoch 27311/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9591  
Epoch 27312/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9596  
Epoch 27313/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9600  
Epoch 27314/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9606  
Epoch 27315/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9602  
Epoch 27316/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9597  
Epoch 27317/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9594  
Epoch 27318/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0299 - accuracy:  
0.9597  
Epoch 27319/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy:  
0.9590  
Epoch 27320/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9608  
Epoch 27321/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9597  
Epoch 27322/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9597  
Epoch 27323/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9596  
Epoch 27324/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9593  
Epoch 27325/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9593  
Epoch 27326/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9595  
Epoch 27327/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9594  
Epoch 27328/100000



2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9592  
Epoch 27329/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9605  
Epoch 27330/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9600  
Epoch 27331/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9591  
Epoch 27332/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9591  
Epoch 27333/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9605  
Epoch 27334/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9591  
Epoch 27335/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9602  
Epoch 27336/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9599  
Epoch 27337/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0306 - accuracy:  
0.9595  
Epoch 27338/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9603  
Epoch 27339/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9592  
Epoch 27340/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9593  
Epoch 27341/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0307 - accuracy:  
0.9594  
Epoch 27342/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9590  
Epoch 27343/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9596  
Epoch 27344/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy: 0.9592  
 Epoch 27345/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9595  
 Epoch 27346/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9602  
 Epoch 27347/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9600  
 Epoch 27348/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9590  
 Epoch 27349/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9591  
 Epoch 27350/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9615  
 Epoch 27351/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9595  
 Epoch 27352/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy: 0.9595  
 Epoch 27353/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9600  
 Epoch 27354/100000  
 2/2 [=====] - 0s 122ms/step - loss: 0.0308 - accuracy: 0.9596  
 Epoch 27355/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy: 0.9600  
 Epoch 27356/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0312 - accuracy: 0.9601  
 Epoch 27357/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy: 0.9593  
 Epoch 27358/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy: 0.9592  
 Epoch 27359/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy: 0.9595  
 Epoch 27360/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9595  
Epoch 27361/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9591  
Epoch 27362/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0312 - accuracy:  
0.9607  
Epoch 27363/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9604  
Epoch 27364/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9600  
Epoch 27365/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9602  
Epoch 27366/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9608  
Epoch 27367/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9588  
Epoch 27368/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy:  
0.9604  
Epoch 27369/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9606  
Epoch 27370/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9594  
Epoch 27371/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9596  
Epoch 27372/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9593  
Epoch 27373/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9597  
Epoch 27374/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9596  
Epoch 27375/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9598  
Epoch 27376/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9603  
Epoch 27377/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9591  
Epoch 27378/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9609  
Epoch 27379/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9595  
Epoch 27380/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0302 - accuracy:  
0.9590  
Epoch 27381/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9596  
Epoch 27382/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9601  
Epoch 27383/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9602  
Epoch 27384/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9596  
Epoch 27385/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9600  
Epoch 27386/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9595  
Epoch 27387/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0309 - accuracy:  
0.9597  
Epoch 27388/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9607  
Epoch 27389/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9599  
Epoch 27390/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9602  
Epoch 27391/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0302 - accuracy:  
0.9589  
Epoch 27392/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy: 0.9596  
Epoch 27393/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9595  
Epoch 27394/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy: 0.9595  
Epoch 27395/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9595  
Epoch 27396/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy: 0.9587  
Epoch 27397/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9590  
Epoch 27398/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9596  
Epoch 27399/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9603  
Epoch 27400/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9592  
Epoch 27401/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy: 0.9598  
Epoch 27402/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy: 0.9607  
Epoch 27403/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy: 0.9595  
Epoch 27404/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy: 0.9595  
Epoch 27405/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9591  
Epoch 27406/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy: 0.9598  
Epoch 27407/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9597  
Epoch 27408/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9594  
Epoch 27409/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9596  
Epoch 27410/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9602  
Epoch 27411/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9607  
Epoch 27412/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9603  
Epoch 27413/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9600  
Epoch 27414/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9595  
Epoch 27415/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9592  
Epoch 27416/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9605  
Epoch 27417/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9598  
Epoch 27418/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9587  
Epoch 27419/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9602  
Epoch 27420/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9599  
Epoch 27421/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9596  
Epoch 27422/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9596  
Epoch 27423/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9597  
Epoch 27424/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy: 0.9597  
Epoch 27425/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy: 0.9587  
Epoch 27426/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy: 0.9600  
Epoch 27427/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy: 0.9600  
Epoch 27428/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy: 0.9586  
Epoch 27429/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy: 0.9606  
Epoch 27430/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy: 0.9598  
Epoch 27431/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy: 0.9591  
Epoch 27432/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy: 0.9600  
Epoch 27433/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy: 0.9597  
Epoch 27434/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy: 0.9595  
Epoch 27435/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy: 0.9590  
Epoch 27436/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy: 0.9593  
Epoch 27437/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0309 - accuracy: 0.9602  
Epoch 27438/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy: 0.9594  
Epoch 27439/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy: 0.9599  
Epoch 27440/100000

2/2 [=====] - 0s 120ms/step - loss: 0.0305 - accuracy:  
0.9597  
Epoch 27441/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0306 - accuracy:  
0.9602  
Epoch 27442/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9593  
Epoch 27443/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9598  
Epoch 27444/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9601  
Epoch 27445/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0301 - accuracy:  
0.9589  
Epoch 27446/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9607  
Epoch 27447/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9598  
Epoch 27448/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9601  
Epoch 27449/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9596  
Epoch 27450/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9596  
Epoch 27451/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9591  
Epoch 27452/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0307 - accuracy:  
0.9600  
Epoch 27453/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9599  
Epoch 27454/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9595  
Epoch 27455/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9588  
Epoch 27456/100000



2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9595  
Epoch 27457/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9607  
Epoch 27458/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0316 - accuracy:  
0.9590  
Epoch 27459/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9599  
Epoch 27460/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0318 - accuracy:  
0.9599  
Epoch 27461/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9590  
Epoch 27462/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0319 - accuracy:  
0.9591  
Epoch 27463/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9597  
Epoch 27464/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9602  
Epoch 27465/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9593  
Epoch 27466/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9595  
Epoch 27467/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0304 - accuracy:  
0.9593  
Epoch 27468/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9602  
Epoch 27469/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0303 - accuracy:  
0.9590  
Epoch 27470/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9601  
Epoch 27471/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9605  
Epoch 27472/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy: 0.9605  
Epoch 27473/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9597  
Epoch 27474/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9599  
Epoch 27475/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0306 - accuracy: 0.9594  
Epoch 27476/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9606  
Epoch 27477/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0308 - accuracy: 0.9595  
Epoch 27478/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy: 0.9592  
Epoch 27479/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy: 0.9598  
Epoch 27480/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9589  
Epoch 27481/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9597  
Epoch 27482/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9593  
Epoch 27483/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy: 0.9598  
Epoch 27484/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9603  
Epoch 27485/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy: 0.9593  
Epoch 27486/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy: 0.9599  
Epoch 27487/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0306 - accuracy: 0.9589  
Epoch 27488/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9596  
Epoch 27489/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9595  
Epoch 27490/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9594  
Epoch 27491/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9606  
Epoch 27492/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9606  
Epoch 27493/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9593  
Epoch 27494/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy:  
0.9598  
Epoch 27495/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9608  
Epoch 27496/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9598  
Epoch 27497/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9600  
Epoch 27498/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9588  
Epoch 27499/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0305 - accuracy:  
0.9599  
Epoch 27500/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9592  
Epoch 27501/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9601  
Epoch 27502/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9603  
Epoch 27503/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9595  
Epoch 27504/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9601  
Epoch 27505/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9603  
Epoch 27506/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9595  
Epoch 27507/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9603  
Epoch 27508/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9609  
Epoch 27509/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9600  
Epoch 27510/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9595  
Epoch 27511/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0305 - accuracy:  
0.9598  
Epoch 27512/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9587  
Epoch 27513/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9591  
Epoch 27514/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9604  
Epoch 27515/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9598  
Epoch 27516/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9594  
Epoch 27517/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9596  
Epoch 27518/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9593  
Epoch 27519/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9597  
Epoch 27520/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9600  
Epoch 27521/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9601  
Epoch 27522/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0303 - accuracy:  
0.9602  
Epoch 27523/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0297 - accuracy:  
0.9596  
Epoch 27524/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9596  
Epoch 27525/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9589  
Epoch 27526/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9598  
Epoch 27527/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9605  
Epoch 27528/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9594  
Epoch 27529/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9593  
Epoch 27530/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9599  
Epoch 27531/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9597  
Epoch 27532/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9599  
Epoch 27533/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9590  
Epoch 27534/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9595  
Epoch 27535/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0299 - accuracy:  
0.9599  
Epoch 27536/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9591  
Epoch 27537/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9593  
Epoch 27538/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0301 - accuracy:  
0.9601  
Epoch 27539/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9604  
Epoch 27540/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9594  
Epoch 27541/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9593  
Epoch 27542/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9607  
Epoch 27543/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9588  
Epoch 27544/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0326 - accuracy:  
0.9594  
Epoch 27545/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0315 - accuracy:  
0.9599  
Epoch 27546/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0314 - accuracy:  
0.9591  
Epoch 27547/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9600  
Epoch 27548/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9599  
Epoch 27549/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy:  
0.9599  
Epoch 27550/100000  
2/2 [=====] - 0s 112ms/step - loss: 0.0308 - accuracy:  
0.9588  
Epoch 27551/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9600  
Epoch 27552/100000

2/2 [=====] - 0s 119ms/step - loss: 0.0311 - accuracy:  
0.9588  
Epoch 27553/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9593  
Epoch 27554/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy:  
0.9596  
Epoch 27555/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9599  
Epoch 27556/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9602  
Epoch 27557/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9591  
Epoch 27558/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9602  
Epoch 27559/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9595  
Epoch 27560/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy:  
0.9592  
Epoch 27561/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9586  
Epoch 27562/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9602  
Epoch 27563/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9597  
Epoch 27564/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0301 - accuracy:  
0.9600  
Epoch 27565/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0300 - accuracy:  
0.9594  
Epoch 27566/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9601  
Epoch 27567/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0307 - accuracy:  
0.9610  
Epoch 27568/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9582  
Epoch 27569/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9594  
Epoch 27570/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9588  
Epoch 27571/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9602  
Epoch 27572/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9592  
Epoch 27573/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9592  
Epoch 27574/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0311 - accuracy:  
0.9605  
Epoch 27575/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9591  
Epoch 27576/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9597  
Epoch 27577/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9594  
Epoch 27578/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9601  
Epoch 27579/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9598  
Epoch 27580/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0307 - accuracy:  
0.9592  
Epoch 27581/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0300 - accuracy:  
0.9590  
Epoch 27582/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9603  
Epoch 27583/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9604  
Epoch 27584/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
 0.9591  
 Epoch 27585/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0314 - accuracy:  
 0.9594  
 Epoch 27586/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
 0.9592  
 Epoch 27587/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
 0.9595  
 Epoch 27588/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
 0.9596  
 Epoch 27589/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0303 - accuracy:  
 0.9595  
 Epoch 27590/100000  
 2/2 [=====] - 0s 120ms/step - loss: 0.0301 - accuracy:  
 0.9594  
 Epoch 27591/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
 0.9591  
 Epoch 27592/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
 0.9602  
 Epoch 27593/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
 0.9600  
 Epoch 27594/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy:  
 0.9592  
 Epoch 27595/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
 0.9596  
 Epoch 27596/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
 0.9593  
 Epoch 27597/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0301 - accuracy:  
 0.9592  
 Epoch 27598/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
 0.9599  
 Epoch 27599/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
 0.9608  
 Epoch 27600/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy: 0.9595  
Epoch 27601/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9599  
Epoch 27602/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy: 0.9598  
Epoch 27603/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy: 0.9597  
Epoch 27604/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy: 0.9605  
Epoch 27605/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0307 - accuracy: 0.9594  
Epoch 27606/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy: 0.9585  
Epoch 27607/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0301 - accuracy: 0.9600  
Epoch 27608/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9598  
Epoch 27609/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9595  
Epoch 27610/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy: 0.9600  
Epoch 27611/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0303 - accuracy: 0.9597  
Epoch 27612/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9586  
Epoch 27613/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy: 0.9603  
Epoch 27614/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy: 0.9605  
Epoch 27615/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy: 0.9596  
Epoch 27616/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9605  
Epoch 27617/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9598  
Epoch 27618/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9603  
Epoch 27619/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9599  
Epoch 27620/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9591  
Epoch 27621/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9600  
Epoch 27622/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9602  
Epoch 27623/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9596  
Epoch 27624/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9610  
Epoch 27625/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9594  
Epoch 27626/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9597  
Epoch 27627/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9598  
Epoch 27628/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9593  
Epoch 27629/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9599  
Epoch 27630/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9594  
Epoch 27631/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0304 - accuracy:  
0.9588  
Epoch 27632/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0301 - accuracy:  
0.9599  
Epoch 27633/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9592  
Epoch 27634/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0299 - accuracy:  
0.9592  
Epoch 27635/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0308 - accuracy:  
0.9599  
Epoch 27636/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0306 - accuracy:  
0.9594  
Epoch 27637/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0307 - accuracy:  
0.9594  
Epoch 27638/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9593  
Epoch 27639/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0305 - accuracy:  
0.9601  
Epoch 27640/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9599  
Epoch 27641/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9595  
Epoch 27642/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9598  
Epoch 27643/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9597  
Epoch 27644/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9591  
Epoch 27645/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9589  
Epoch 27646/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9600  
Epoch 27647/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9593  
Epoch 27648/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy: 0.9597  
Epoch 27649/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9590  
Epoch 27650/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9606  
Epoch 27651/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy: 0.9590  
Epoch 27652/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9592  
Epoch 27653/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9603  
Epoch 27654/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy: 0.9597  
Epoch 27655/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy: 0.9596  
Epoch 27656/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy: 0.9594  
Epoch 27657/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9590  
Epoch 27658/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy: 0.9603  
Epoch 27659/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy: 0.9594  
Epoch 27660/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0311 - accuracy: 0.9597  
Epoch 27661/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0326 - accuracy: 0.9599  
Epoch 27662/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy: 0.9599  
Epoch 27663/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0316 - accuracy: 0.9591  
Epoch 27664/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0333 - accuracy:  
0.9606  
Epoch 27665/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0339 - accuracy:  
0.9598  
Epoch 27666/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0329 - accuracy:  
0.9598  
Epoch 27667/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0321 - accuracy:  
0.9599  
Epoch 27668/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9596  
Epoch 27669/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9587  
Epoch 27670/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0310 - accuracy:  
0.9604  
Epoch 27671/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0309 - accuracy:  
0.9601  
Epoch 27672/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9600  
Epoch 27673/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9592  
Epoch 27674/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0307 - accuracy:  
0.9597  
Epoch 27675/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy:  
0.9592  
Epoch 27676/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9590  
Epoch 27677/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9601  
Epoch 27678/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9591  
Epoch 27679/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9596  
Epoch 27680/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy: 0.9605  
Epoch 27681/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy: 0.9592  
Epoch 27682/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy: 0.9594  
Epoch 27683/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0309 - accuracy: 0.9605  
Epoch 27684/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0306 - accuracy: 0.9601  
Epoch 27685/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9599  
Epoch 27686/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9596  
Epoch 27687/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy: 0.9604  
Epoch 27688/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy: 0.9602  
Epoch 27689/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy: 0.9590  
Epoch 27690/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy: 0.9597  
Epoch 27691/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9603  
Epoch 27692/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9594  
Epoch 27693/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy: 0.9590  
Epoch 27694/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9595  
Epoch 27695/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy: 0.9593  
Epoch 27696/100000

2/2 [=====] - 0s 119ms/step - loss: 0.0305 - accuracy: 0.9598  
Epoch 27697/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy: 0.9597  
Epoch 27698/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9592  
Epoch 27699/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy: 0.9594  
Epoch 27700/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy: 0.9601  
Epoch 27701/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9589  
Epoch 27702/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy: 0.9586  
Epoch 27703/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy: 0.9593  
Epoch 27704/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9597  
Epoch 27705/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9597  
Epoch 27706/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9605  
Epoch 27707/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy: 0.9600  
Epoch 27708/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy: 0.9603  
Epoch 27709/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9605  
Epoch 27710/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0304 - accuracy: 0.9596  
Epoch 27711/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9587  
Epoch 27712/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
 0.9600  
 Epoch 27713/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
 0.9594  
 Epoch 27714/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
 0.9590  
 Epoch 27715/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
 0.9598  
 Epoch 27716/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
 0.9598  
 Epoch 27717/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
 0.9596  
 Epoch 27718/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
 0.9600  
 Epoch 27719/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
 0.9598  
 Epoch 27720/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
 0.9592  
 Epoch 27721/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
 0.9598  
 Epoch 27722/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0294 - accuracy:  
 0.9594  
 Epoch 27723/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
 0.9601  
 Epoch 27724/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
 0.9600  
 Epoch 27725/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
 0.9590  
 Epoch 27726/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
 0.9599  
 Epoch 27727/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
 0.9593  
 Epoch 27728/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy: 0.9589  
Epoch 27729/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy: 0.9594  
Epoch 27730/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy: 0.9598  
Epoch 27731/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0307 - accuracy: 0.9592  
Epoch 27732/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0297 - accuracy: 0.9589  
Epoch 27733/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy: 0.9593  
Epoch 27734/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9595  
Epoch 27735/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0303 - accuracy: 0.9593  
Epoch 27736/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy: 0.9598  
Epoch 27737/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9599  
Epoch 27738/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9599  
Epoch 27739/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0299 - accuracy: 0.9596  
Epoch 27740/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy: 0.9603  
Epoch 27741/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy: 0.9607  
Epoch 27742/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9599  
Epoch 27743/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9590  
Epoch 27744/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0295 - accuracy:  
0.9594  
Epoch 27745/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9599  
Epoch 27746/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0300 - accuracy:  
0.9602  
Epoch 27747/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0299 - accuracy:  
0.9601  
Epoch 27748/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0301 - accuracy:  
0.9601  
Epoch 27749/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9589  
Epoch 27750/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9609  
Epoch 27751/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9602  
Epoch 27752/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9589  
Epoch 27753/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9602  
Epoch 27754/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0309 - accuracy:  
0.9596  
Epoch 27755/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9592  
Epoch 27756/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9588  
Epoch 27757/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9593  
Epoch 27758/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9599  
Epoch 27759/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9598  
Epoch 27760/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy: 0.9588  
Epoch 27761/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy: 0.9587  
Epoch 27762/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9596  
Epoch 27763/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0296 - accuracy: 0.9592  
Epoch 27764/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy: 0.9603  
Epoch 27765/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy: 0.9593  
Epoch 27766/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9592  
Epoch 27767/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0303 - accuracy: 0.9591  
Epoch 27768/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy: 0.9593  
Epoch 27769/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9593  
Epoch 27770/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9589  
Epoch 27771/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9592  
Epoch 27772/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0303 - accuracy: 0.9589  
Epoch 27773/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9592  
Epoch 27774/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy: 0.9592  
Epoch 27775/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0295 - accuracy: 0.9595  
Epoch 27776/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9588  
Epoch 27777/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9598  
Epoch 27778/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9595  
Epoch 27779/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9589  
Epoch 27780/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9596  
Epoch 27781/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9592  
Epoch 27782/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9592  
Epoch 27783/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9594  
Epoch 27784/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9608  
Epoch 27785/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9600  
Epoch 27786/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9602  
Epoch 27787/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9596  
Epoch 27788/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0303 - accuracy:  
0.9590  
Epoch 27789/100000  
2/2 [=====] - 0s 130ms/step - loss: 0.0304 - accuracy:  
0.9601  
Epoch 27790/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0309 - accuracy:  
0.9588  
Epoch 27791/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0310 - accuracy:  
0.9598  
Epoch 27792/100000

2/2 [=====] - 0s 127ms/step - loss: 0.0314 - accuracy:  
0.9603  
Epoch 27793/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0315 - accuracy:  
0.9588  
Epoch 27794/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0313 - accuracy:  
0.9597  
Epoch 27795/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0305 - accuracy:  
0.9586  
Epoch 27796/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9590  
Epoch 27797/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9597  
Epoch 27798/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9603  
Epoch 27799/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0304 - accuracy:  
0.9593  
Epoch 27800/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9588  
Epoch 27801/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9596  
Epoch 27802/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0305 - accuracy:  
0.9596  
Epoch 27803/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9601  
Epoch 27804/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9610  
Epoch 27805/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9604  
Epoch 27806/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0304 - accuracy:  
0.9606  
Epoch 27807/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9593  
Epoch 27808/100000

2/2 [=====] - 0s 123ms/step - loss: 0.0302 - accuracy:  
0.9589  
Epoch 27809/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0304 - accuracy:  
0.9600  
Epoch 27810/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9596  
Epoch 27811/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9603  
Epoch 27812/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0297 - accuracy:  
0.9597  
Epoch 27813/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0307 - accuracy:  
0.9601  
Epoch 27814/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0299 - accuracy:  
0.9599  
Epoch 27815/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9604  
Epoch 27816/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9590  
Epoch 27817/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9609  
Epoch 27818/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9591  
Epoch 27819/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9590  
Epoch 27820/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9598  
Epoch 27821/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9600  
Epoch 27822/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9584  
Epoch 27823/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0310 - accuracy:  
0.9604  
Epoch 27824/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9599  
Epoch 27825/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9593  
Epoch 27826/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0325 - accuracy:  
0.9588  
Epoch 27827/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0307 - accuracy:  
0.9601  
Epoch 27828/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9588  
Epoch 27829/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9587  
Epoch 27830/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0315 - accuracy:  
0.9595  
Epoch 27831/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9597  
Epoch 27832/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy:  
0.9599  
Epoch 27833/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy:  
0.9587  
Epoch 27834/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9597  
Epoch 27835/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9596  
Epoch 27836/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy:  
0.9593  
Epoch 27837/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0303 - accuracy:  
0.9595  
Epoch 27838/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0309 - accuracy:  
0.9594  
Epoch 27839/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9592  
Epoch 27840/100000



2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy: 0.9599  
Epoch 27841/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9602  
Epoch 27842/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9594  
Epoch 27843/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9589  
Epoch 27844/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy: 0.9589  
Epoch 27845/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9594  
Epoch 27846/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy: 0.9604  
Epoch 27847/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9595  
Epoch 27848/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy: 0.9601  
Epoch 27849/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9605  
Epoch 27850/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0301 - accuracy: 0.9592  
Epoch 27851/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy: 0.9600  
Epoch 27852/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9583  
Epoch 27853/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0298 - accuracy: 0.9599  
Epoch 27854/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9594  
Epoch 27855/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9589  
Epoch 27856/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9596  
Epoch 27857/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9589  
Epoch 27858/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0298 - accuracy:  
0.9592  
Epoch 27859/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9601  
Epoch 27860/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0299 - accuracy:  
0.9593  
Epoch 27861/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9606  
Epoch 27862/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0301 - accuracy:  
0.9583  
Epoch 27863/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9601  
Epoch 27864/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9599  
Epoch 27865/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9595  
Epoch 27866/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9593  
Epoch 27867/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9597  
Epoch 27868/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9590  
Epoch 27869/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9601  
Epoch 27870/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9592  
Epoch 27871/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9606  
Epoch 27872/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9595  
Epoch 27873/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9595  
Epoch 27874/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9596  
Epoch 27875/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy: 0.9602  
Epoch 27876/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy: 0.9598  
Epoch 27877/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9607  
Epoch 27878/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy: 0.9598  
Epoch 27879/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9602  
Epoch 27880/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy: 0.9588  
Epoch 27881/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy: 0.9595  
Epoch 27882/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0302 - accuracy: 0.9599  
Epoch 27883/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9594  
Epoch 27884/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy: 0.9598  
Epoch 27885/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9593  
Epoch 27886/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9592  
Epoch 27887/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9595  
Epoch 27888/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy: 0.9590  
Epoch 27889/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy: 0.9600  
Epoch 27890/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0299 - accuracy: 0.9594  
Epoch 27891/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9590  
Epoch 27892/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0300 - accuracy: 0.9605  
Epoch 27893/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0299 - accuracy: 0.9597  
Epoch 27894/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9597  
Epoch 27895/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy: 0.9597  
Epoch 27896/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9589  
Epoch 27897/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy: 0.9592  
Epoch 27898/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9589  
Epoch 27899/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy: 0.9599  
Epoch 27900/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0309 - accuracy: 0.9595  
Epoch 27901/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy: 0.9606  
Epoch 27902/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9592  
Epoch 27903/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0340 - accuracy: 0.9597  
Epoch 27904/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy: 0.9595  
Epoch 27905/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy: 0.9586  
Epoch 27906/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy: 0.9604  
Epoch 27907/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy: 0.9590  
Epoch 27908/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy: 0.9597  
Epoch 27909/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0318 - accuracy: 0.9594  
Epoch 27910/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0317 - accuracy: 0.9594  
Epoch 27911/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0312 - accuracy: 0.9599  
Epoch 27912/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9601  
Epoch 27913/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0306 - accuracy: 0.9600  
Epoch 27914/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy: 0.9596  
Epoch 27915/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy: 0.9597  
Epoch 27916/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9594  
Epoch 27917/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9592  
Epoch 27918/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy: 0.9595  
Epoch 27919/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9594  
Epoch 27920/100000

2/2 [=====] - 0s 119ms/step - loss: 0.0306 - accuracy:  
0.9610  
Epoch 27921/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9601  
Epoch 27922/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9602  
Epoch 27923/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0306 - accuracy:  
0.9603  
Epoch 27924/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9595  
Epoch 27925/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9596  
Epoch 27926/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy:  
0.9588  
Epoch 27927/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0301 - accuracy:  
0.9608  
Epoch 27928/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0302 - accuracy:  
0.9601  
Epoch 27929/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9607  
Epoch 27930/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9610  
Epoch 27931/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9597  
Epoch 27932/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9601  
Epoch 27933/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9598  
Epoch 27934/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9594  
Epoch 27935/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9596  
Epoch 27936/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy: 0.9589  
Epoch 27937/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy: 0.9595  
Epoch 27938/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0310 - accuracy: 0.9601  
Epoch 27939/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy: 0.9600  
Epoch 27940/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy: 0.9601  
Epoch 27941/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy: 0.9597  
Epoch 27942/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy: 0.9595  
Epoch 27943/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0299 - accuracy: 0.9597  
Epoch 27944/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9603  
Epoch 27945/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9596  
Epoch 27946/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy: 0.9595  
Epoch 27947/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy: 0.9599  
Epoch 27948/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9602  
Epoch 27949/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy: 0.9603  
Epoch 27950/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy: 0.9590  
Epoch 27951/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9594  
Epoch 27952/100000

2/2 [=====] - 0s 120ms/step - loss: 0.0302 - accuracy: 0.9603  
Epoch 27953/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0298 - accuracy: 0.9589  
Epoch 27954/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0306 - accuracy: 0.9599  
Epoch 27955/100000  
2/2 [=====] - 0s 129ms/step - loss: 0.0302 - accuracy: 0.9598  
Epoch 27956/100000  
2/2 [=====] - 0s 127ms/step - loss: 0.0301 - accuracy: 0.9595  
Epoch 27957/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0298 - accuracy: 0.9597  
Epoch 27958/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0299 - accuracy: 0.9604  
Epoch 27959/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy: 0.9600  
Epoch 27960/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy: 0.9600  
Epoch 27961/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0300 - accuracy: 0.9595  
Epoch 27962/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy: 0.9602  
Epoch 27963/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy: 0.9591  
Epoch 27964/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy: 0.9603  
Epoch 27965/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0300 - accuracy: 0.9588  
Epoch 27966/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy: 0.9597  
Epoch 27967/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy: 0.9594  
Epoch 27968/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9592  
Epoch 27969/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9591  
Epoch 27970/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9597  
Epoch 27971/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9598  
Epoch 27972/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9594  
Epoch 27973/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9604  
Epoch 27974/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9594  
Epoch 27975/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9601  
Epoch 27976/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9604  
Epoch 27977/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9605  
Epoch 27978/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9597  
Epoch 27979/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9586  
Epoch 27980/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9591  
Epoch 27981/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9604  
Epoch 27982/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0310 - accuracy:  
0.9605  
Epoch 27983/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9590  
Epoch 27984/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy:  
0.9602  
Epoch 27985/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9600  
Epoch 27986/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy:  
0.9596  
Epoch 27987/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9596  
Epoch 27988/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9611  
Epoch 27989/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0308 - accuracy:  
0.9590  
Epoch 27990/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9582  
Epoch 27991/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9602  
Epoch 27992/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9598  
Epoch 27993/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9600  
Epoch 27994/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9601  
Epoch 27995/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9594  
Epoch 27996/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9592  
Epoch 27997/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9593  
Epoch 27998/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9598  
Epoch 27999/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9598  
Epoch 28000/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9602  
Epoch 28001/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9597  
Epoch 28002/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9597  
Epoch 28003/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9602  
Epoch 28004/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0311 - accuracy:  
0.9597  
Epoch 28005/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0317 - accuracy:  
0.9602  
Epoch 28006/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0314 - accuracy:  
0.9608  
Epoch 28007/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9602  
Epoch 28008/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9607  
Epoch 28009/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0318 - accuracy:  
0.9598  
Epoch 28010/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9598  
Epoch 28011/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9607  
Epoch 28012/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9591  
Epoch 28013/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9597  
Epoch 28014/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0332 - accuracy:  
0.9603  
Epoch 28015/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy:  
0.9603  
Epoch 28016/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9592  
Epoch 28017/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9607  
Epoch 28018/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9596  
Epoch 28019/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0306 - accuracy:  
0.9590  
Epoch 28020/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0305 - accuracy:  
0.9593  
Epoch 28021/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9604  
Epoch 28022/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9592  
Epoch 28023/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9597  
Epoch 28024/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0309 - accuracy:  
0.9602  
Epoch 28025/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9598  
Epoch 28026/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9601  
Epoch 28027/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9588  
Epoch 28028/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9599  
Epoch 28029/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9595  
Epoch 28030/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9590  
Epoch 28031/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9589  
Epoch 28032/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9604  
Epoch 28033/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9598  
Epoch 28034/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9594  
Epoch 28035/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9604  
Epoch 28036/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0300 - accuracy:  
0.9594  
Epoch 28037/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9606  
Epoch 28038/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0303 - accuracy:  
0.9601  
Epoch 28039/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9594  
Epoch 28040/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9594  
Epoch 28041/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9603  
Epoch 28042/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9595  
Epoch 28043/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9594  
Epoch 28044/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9600  
Epoch 28045/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9603  
Epoch 28046/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9604  
Epoch 28047/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9598  
Epoch 28048/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0302 - accuracy:  
0.9596  
Epoch 28049/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9587  
Epoch 28050/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0296 - accuracy:  
0.9593  
Epoch 28051/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9597  
Epoch 28052/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9595  
Epoch 28053/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0306 - accuracy:  
0.9605  
Epoch 28054/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9604  
Epoch 28055/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9592  
Epoch 28056/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9586  
Epoch 28057/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9609  
Epoch 28058/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9589  
Epoch 28059/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0308 - accuracy:  
0.9603  
Epoch 28060/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9603  
Epoch 28061/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0313 - accuracy:  
0.9592  
Epoch 28062/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9589  
Epoch 28063/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0308 - accuracy:  
0.9600  
Epoch 28064/100000

2/2 [=====] - 0s 128ms/step - loss: 0.0322 - accuracy:  
0.9601  
Epoch 28065/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0319 - accuracy:  
0.9595  
Epoch 28066/100000  
2/2 [=====] - 0s 138ms/step - loss: 0.0305 - accuracy:  
0.9594  
Epoch 28067/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0303 - accuracy:  
0.9590  
Epoch 28068/100000  
2/2 [=====] - 0s 135ms/step - loss: 0.0313 - accuracy:  
0.9589  
Epoch 28069/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0312 - accuracy:  
0.9600  
Epoch 28070/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9598  
Epoch 28071/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9597  
Epoch 28072/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9597  
Epoch 28073/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9597  
Epoch 28074/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9596  
Epoch 28075/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0303 - accuracy:  
0.9600  
Epoch 28076/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9601  
Epoch 28077/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9599  
Epoch 28078/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9594  
Epoch 28079/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9597  
Epoch 28080/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9594  
Epoch 28081/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9598  
Epoch 28082/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9592  
Epoch 28083/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9599  
Epoch 28084/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9596  
Epoch 28085/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9595  
Epoch 28086/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9593  
Epoch 28087/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9595  
Epoch 28088/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9597  
Epoch 28089/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9595  
Epoch 28090/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0305 - accuracy:  
0.9588  
Epoch 28091/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9600  
Epoch 28092/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9590  
Epoch 28093/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9598  
Epoch 28094/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0304 - accuracy:  
0.9601  
Epoch 28095/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9597  
Epoch 28096/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9599  
Epoch 28097/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0296 - accuracy:  
0.9599  
Epoch 28098/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9605  
Epoch 28099/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0300 - accuracy:  
0.9605  
Epoch 28100/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0301 - accuracy:  
0.9591  
Epoch 28101/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9605  
Epoch 28102/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9597  
Epoch 28103/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9604  
Epoch 28104/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9591  
Epoch 28105/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy:  
0.9593  
Epoch 28106/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy:  
0.9595  
Epoch 28107/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9604  
Epoch 28108/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0296 - accuracy:  
0.9599  
Epoch 28109/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9602  
Epoch 28110/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0304 - accuracy:  
0.9600  
Epoch 28111/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9582  
Epoch 28112/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9585  
Epoch 28113/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9597  
Epoch 28114/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9603  
Epoch 28115/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9593  
Epoch 28116/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9591  
Epoch 28117/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0296 - accuracy:  
0.9583  
Epoch 28118/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0303 - accuracy:  
0.9591  
Epoch 28119/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9594  
Epoch 28120/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9595  
Epoch 28121/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9602  
Epoch 28122/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9589  
Epoch 28123/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9598  
Epoch 28124/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9597  
Epoch 28125/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9594  
Epoch 28126/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9596  
Epoch 28127/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9597  
Epoch 28128/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9601  
Epoch 28129/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9595  
Epoch 28130/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0300 - accuracy:  
0.9597  
Epoch 28131/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9597  
Epoch 28132/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9606  
Epoch 28133/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9599  
Epoch 28134/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9601  
Epoch 28135/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9598  
Epoch 28136/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy:  
0.9609  
Epoch 28137/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0304 - accuracy:  
0.9592  
Epoch 28138/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9593  
Epoch 28139/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9601  
Epoch 28140/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0305 - accuracy:  
0.9599  
Epoch 28141/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9608  
Epoch 28142/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0315 - accuracy:  
0.9601  
Epoch 28143/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9598  
Epoch 28144/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy: 0.9587  
Epoch 28145/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy: 0.9592  
Epoch 28146/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9594  
Epoch 28147/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9605  
Epoch 28148/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy: 0.9588  
Epoch 28149/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy: 0.9596  
Epoch 28150/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0314 - accuracy: 0.9595  
Epoch 28151/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0317 - accuracy: 0.9606  
Epoch 28152/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy: 0.9602  
Epoch 28153/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy: 0.9593  
Epoch 28154/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy: 0.9595  
Epoch 28155/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9592  
Epoch 28156/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0301 - accuracy: 0.9599  
Epoch 28157/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0303 - accuracy: 0.9607  
Epoch 28158/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy: 0.9588  
Epoch 28159/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0301 - accuracy: 0.9594  
Epoch 28160/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9596  
Epoch 28161/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9600  
Epoch 28162/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9599  
Epoch 28163/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9594  
Epoch 28164/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9600  
Epoch 28165/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0314 - accuracy:  
0.9596  
Epoch 28166/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9596  
Epoch 28167/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9594  
Epoch 28168/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9595  
Epoch 28169/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9597  
Epoch 28170/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0333 - accuracy:  
0.9600  
Epoch 28171/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9590  
Epoch 28172/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9592  
Epoch 28173/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9609  
Epoch 28174/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9594  
Epoch 28175/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9590  
Epoch 28176/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9604  
Epoch 28177/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9605  
Epoch 28178/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9592  
Epoch 28179/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy: 0.9592  
Epoch 28180/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9587  
Epoch 28181/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9601  
Epoch 28182/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy: 0.9592  
Epoch 28183/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9590  
Epoch 28184/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy: 0.9598  
Epoch 28185/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy: 0.9601  
Epoch 28186/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy: 0.9603  
Epoch 28187/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9592  
Epoch 28188/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0301 - accuracy: 0.9597  
Epoch 28189/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9599  
Epoch 28190/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9596  
Epoch 28191/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0300 - accuracy: 0.9602  
Epoch 28192/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0299 - accuracy: 0.9611  
Epoch 28193/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy: 0.9603  
Epoch 28194/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy: 0.9594  
Epoch 28195/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy: 0.9605  
Epoch 28196/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy: 0.9594  
Epoch 28197/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0300 - accuracy: 0.9595  
Epoch 28198/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy: 0.9596  
Epoch 28199/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy: 0.9595  
Epoch 28200/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0296 - accuracy: 0.9602  
Epoch 28201/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0304 - accuracy: 0.9599  
Epoch 28202/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9592  
Epoch 28203/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0310 - accuracy: 0.9604  
Epoch 28204/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy: 0.9602  
Epoch 28205/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9596  
Epoch 28206/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy: 0.9608  
Epoch 28207/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9594  
Epoch 28208/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9593  
Epoch 28209/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0301 - accuracy:  
0.9596  
Epoch 28210/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9601  
Epoch 28211/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9599  
Epoch 28212/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9603  
Epoch 28213/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0303 - accuracy:  
0.9590  
Epoch 28214/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9611  
Epoch 28215/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9600  
Epoch 28216/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9605  
Epoch 28217/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9607  
Epoch 28218/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9598  
Epoch 28219/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9589  
Epoch 28220/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9591  
Epoch 28221/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9601  
Epoch 28222/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0302 - accuracy:  
0.9603  
Epoch 28223/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9598  
Epoch 28224/100000



2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy: 0.9587  
Epoch 28225/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9588  
Epoch 28226/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9606  
Epoch 28227/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9597  
Epoch 28228/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9585  
Epoch 28229/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy: 0.9591  
Epoch 28230/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy: 0.9598  
Epoch 28231/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9597  
Epoch 28232/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy: 0.9594  
Epoch 28233/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy: 0.9598  
Epoch 28234/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy: 0.9599  
Epoch 28235/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy: 0.9608  
Epoch 28236/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy: 0.9593  
Epoch 28237/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy: 0.9596  
Epoch 28238/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0317 - accuracy: 0.9594  
Epoch 28239/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9595  
Epoch 28240/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9601  
Epoch 28241/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9595  
Epoch 28242/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9596  
Epoch 28243/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9600  
Epoch 28244/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9586  
Epoch 28245/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9603  
Epoch 28246/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9608  
Epoch 28247/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy:  
0.9598  
Epoch 28248/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9608  
Epoch 28249/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9594  
Epoch 28250/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9606  
Epoch 28251/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9588  
Epoch 28252/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9594  
Epoch 28253/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9595  
Epoch 28254/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9596  
Epoch 28255/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9595  
Epoch 28256/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9600  
Epoch 28257/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9599  
Epoch 28258/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0301 - accuracy:  
0.9596  
Epoch 28259/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0298 - accuracy:  
0.9586  
Epoch 28260/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9599  
Epoch 28261/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9606  
Epoch 28262/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0300 - accuracy:  
0.9595  
Epoch 28263/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9610  
Epoch 28264/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9593  
Epoch 28265/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy:  
0.9597  
Epoch 28266/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9595  
Epoch 28267/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0302 - accuracy:  
0.9610  
Epoch 28268/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9596  
Epoch 28269/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9598  
Epoch 28270/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9594  
Epoch 28271/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0299 - accuracy:  
0.9602  
Epoch 28272/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0304 - accuracy: 0.9597  
Epoch 28273/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9595  
Epoch 28274/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9598  
Epoch 28275/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9596  
Epoch 28276/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy: 0.9600  
Epoch 28277/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0296 - accuracy: 0.9591  
Epoch 28278/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy: 0.9605  
Epoch 28279/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy: 0.9609  
Epoch 28280/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy: 0.9594  
Epoch 28281/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0335 - accuracy: 0.9603  
Epoch 28282/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0315 - accuracy: 0.9586  
Epoch 28283/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0316 - accuracy: 0.9597  
Epoch 28284/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9588  
Epoch 28285/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0319 - accuracy: 0.9600  
Epoch 28286/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy: 0.9594  
Epoch 28287/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy: 0.9600  
Epoch 28288/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy:  
0.9602  
Epoch 28289/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9601  
Epoch 28290/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy:  
0.9597  
Epoch 28291/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9597  
Epoch 28292/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9596  
Epoch 28293/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9593  
Epoch 28294/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9602  
Epoch 28295/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9587  
Epoch 28296/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9595  
Epoch 28297/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9604  
Epoch 28298/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0320 - accuracy:  
0.9608  
Epoch 28299/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9593  
Epoch 28300/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9595  
Epoch 28301/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9582  
Epoch 28302/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9598  
Epoch 28303/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9599  
Epoch 28304/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9590  
Epoch 28305/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9598  
Epoch 28306/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0316 - accuracy:  
0.9596  
Epoch 28307/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0310 - accuracy:  
0.9595  
Epoch 28308/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0314 - accuracy:  
0.9597  
Epoch 28309/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9593  
Epoch 28310/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0313 - accuracy:  
0.9605  
Epoch 28311/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9595  
Epoch 28312/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9596  
Epoch 28313/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0310 - accuracy:  
0.9593  
Epoch 28314/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9596  
Epoch 28315/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9592  
Epoch 28316/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9594  
Epoch 28317/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9588  
Epoch 28318/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0302 - accuracy:  
0.9601  
Epoch 28319/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9597  
Epoch 28320/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9593  
Epoch 28321/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9601  
Epoch 28322/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9591  
Epoch 28323/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0303 - accuracy:  
0.9589  
Epoch 28324/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9584  
Epoch 28325/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9595  
Epoch 28326/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9592  
Epoch 28327/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9589  
Epoch 28328/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9599  
Epoch 28329/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0299 - accuracy:  
0.9597  
Epoch 28330/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9598  
Epoch 28331/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9586  
Epoch 28332/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9602  
Epoch 28333/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9598  
Epoch 28334/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9594  
Epoch 28335/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9599  
Epoch 28336/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9601  
Epoch 28337/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0303 - accuracy:  
0.9590  
Epoch 28338/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9602  
Epoch 28339/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9598  
Epoch 28340/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9602  
Epoch 28341/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9601  
Epoch 28342/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9605  
Epoch 28343/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9597  
Epoch 28344/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9597  
Epoch 28345/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9594  
Epoch 28346/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0301 - accuracy:  
0.9607  
Epoch 28347/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9600  
Epoch 28348/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0296 - accuracy:  
0.9589  
Epoch 28349/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9596  
Epoch 28350/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9589  
Epoch 28351/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9595  
Epoch 28352/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9596  
Epoch 28353/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9597  
Epoch 28354/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9603  
Epoch 28355/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0308 - accuracy:  
0.9600  
Epoch 28356/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9594  
Epoch 28357/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9599  
Epoch 28358/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0308 - accuracy:  
0.9595  
Epoch 28359/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9597  
Epoch 28360/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9599  
Epoch 28361/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9604  
Epoch 28362/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9607  
Epoch 28363/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9589  
Epoch 28364/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9594  
Epoch 28365/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0302 - accuracy:  
0.9601  
Epoch 28366/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0311 - accuracy:  
0.9591  
Epoch 28367/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9597  
Epoch 28368/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0303 - accuracy:  
0.9597  
Epoch 28369/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9600  
Epoch 28370/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9597  
Epoch 28371/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9594  
Epoch 28372/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0303 - accuracy:  
0.9604  
Epoch 28373/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9601  
Epoch 28374/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9596  
Epoch 28375/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9595  
Epoch 28376/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9601  
Epoch 28377/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9601  
Epoch 28378/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9586  
Epoch 28379/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9591  
Epoch 28380/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9603  
Epoch 28381/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9591  
Epoch 28382/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9596  
Epoch 28383/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9597  
Epoch 28384/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9598  
Epoch 28385/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy: 0.9589  
Epoch 28386/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy: 0.9584  
Epoch 28387/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy: 0.9601  
Epoch 28388/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9588  
Epoch 28389/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9601  
Epoch 28390/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9601  
Epoch 28391/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9593  
Epoch 28392/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy: 0.9595  
Epoch 28393/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9600  
Epoch 28394/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9601  
Epoch 28395/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9594  
Epoch 28396/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9595  
Epoch 28397/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy: 0.9595  
Epoch 28398/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9593  
Epoch 28399/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9590  
Epoch 28400/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy: 0.9596  
Epoch 28401/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy: 0.9590  
Epoch 28402/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9596  
Epoch 28403/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0306 - accuracy: 0.9589  
Epoch 28404/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9594  
Epoch 28405/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy: 0.9597  
Epoch 28406/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9596  
Epoch 28407/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy: 0.9601  
Epoch 28408/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9594  
Epoch 28409/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy: 0.9597  
Epoch 28410/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0303 - accuracy: 0.9598  
Epoch 28411/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy: 0.9592  
Epoch 28412/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy: 0.9612  
Epoch 28413/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9608  
Epoch 28414/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0303 - accuracy: 0.9599  
Epoch 28415/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy: 0.9596  
Epoch 28416/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0297 - accuracy:  
0.9588  
Epoch 28417/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9588  
Epoch 28418/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9598  
Epoch 28419/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0305 - accuracy:  
0.9604  
Epoch 28420/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9595  
Epoch 28421/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9593  
Epoch 28422/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9592  
Epoch 28423/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy:  
0.9599  
Epoch 28424/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9595  
Epoch 28425/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9594  
Epoch 28426/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9614  
Epoch 28427/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9603  
Epoch 28428/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy:  
0.9604  
Epoch 28429/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9594  
Epoch 28430/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9597  
Epoch 28431/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9596  
Epoch 28432/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9607  
Epoch 28433/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9592  
Epoch 28434/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9599  
Epoch 28435/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9601  
Epoch 28436/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy:  
0.9593  
Epoch 28437/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9593  
Epoch 28438/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9596  
Epoch 28439/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0306 - accuracy:  
0.9604  
Epoch 28440/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9597  
Epoch 28441/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9592  
Epoch 28442/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9602  
Epoch 28443/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9586  
Epoch 28444/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9595  
Epoch 28445/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9598  
Epoch 28446/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9596  
Epoch 28447/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0296 - accuracy:  
0.9599  
Epoch 28448/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9599  
Epoch 28449/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9602  
Epoch 28450/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy: 0.9608  
Epoch 28451/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9599  
Epoch 28452/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9593  
Epoch 28453/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy: 0.9596  
Epoch 28454/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy: 0.9598  
Epoch 28455/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9594  
Epoch 28456/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy: 0.9594  
Epoch 28457/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9605  
Epoch 28458/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0298 - accuracy: 0.9590  
Epoch 28459/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy: 0.9594  
Epoch 28460/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy: 0.9596  
Epoch 28461/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy: 0.9582  
Epoch 28462/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy: 0.9600  
Epoch 28463/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy: 0.9596  
Epoch 28464/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9591  
Epoch 28465/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy: 0.9590  
Epoch 28466/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0305 - accuracy: 0.9601  
Epoch 28467/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9600  
Epoch 28468/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy: 0.9597  
Epoch 28469/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy: 0.9582  
Epoch 28470/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy: 0.9596  
Epoch 28471/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0312 - accuracy: 0.9599  
Epoch 28472/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy: 0.9598  
Epoch 28473/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy: 0.9596  
Epoch 28474/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy: 0.9599  
Epoch 28475/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy: 0.9605  
Epoch 28476/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy: 0.9592  
Epoch 28477/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy: 0.9594  
Epoch 28478/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy: 0.9598  
Epoch 28479/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy: 0.9592  
Epoch 28480/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9599  
Epoch 28481/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0300 - accuracy: 0.9598  
Epoch 28482/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0304 - accuracy: 0.9591  
Epoch 28483/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9599  
Epoch 28484/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy: 0.9596  
Epoch 28485/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy: 0.9601  
Epoch 28486/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy: 0.9606  
Epoch 28487/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy: 0.9597  
Epoch 28488/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9590  
Epoch 28489/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9594  
Epoch 28490/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy: 0.9597  
Epoch 28491/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0313 - accuracy: 0.9594  
Epoch 28492/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy: 0.9595  
Epoch 28493/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy: 0.9592  
Epoch 28494/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9599  
Epoch 28495/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0307 - accuracy: 0.9597  
Epoch 28496/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9598  
Epoch 28497/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9594  
Epoch 28498/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0301 - accuracy:  
0.9591  
Epoch 28499/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9589  
Epoch 28500/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0304 - accuracy:  
0.9594  
Epoch 28501/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9589  
Epoch 28502/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0303 - accuracy:  
0.9598  
Epoch 28503/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy:  
0.9593  
Epoch 28504/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9593  
Epoch 28505/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9587  
Epoch 28506/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9597  
Epoch 28507/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0295 - accuracy:  
0.9591  
Epoch 28508/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9596  
Epoch 28509/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0300 - accuracy:  
0.9585  
Epoch 28510/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0302 - accuracy:  
0.9595  
Epoch 28511/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9603  
Epoch 28512/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
 0.9594  
 Epoch 28513/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy:  
 0.9597  
 Epoch 28514/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
 0.9596  
 Epoch 28515/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
 0.9590  
 Epoch 28516/100000  
 2/2 [=====] - 0s 121ms/step - loss: 0.0301 - accuracy:  
 0.9600  
 Epoch 28517/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
 0.9588  
 Epoch 28518/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
 0.9600  
 Epoch 28519/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
 0.9589  
 Epoch 28520/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
 0.9593  
 Epoch 28521/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0309 - accuracy:  
 0.9603  
 Epoch 28522/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
 0.9596  
 Epoch 28523/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0325 - accuracy:  
 0.9605  
 Epoch 28524/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0324 - accuracy:  
 0.9591  
 Epoch 28525/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
 0.9601  
 Epoch 28526/100000  
 2/2 [=====] - 0s 121ms/step - loss: 0.0303 - accuracy:  
 0.9594  
 Epoch 28527/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
 0.9599  
 Epoch 28528/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9589  
Epoch 28529/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9596  
Epoch 28530/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9597  
Epoch 28531/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy:  
0.9594  
Epoch 28532/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9590  
Epoch 28533/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9596  
Epoch 28534/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0301 - accuracy:  
0.9603  
Epoch 28535/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0301 - accuracy:  
0.9602  
Epoch 28536/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9596  
Epoch 28537/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0306 - accuracy:  
0.9607  
Epoch 28538/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0299 - accuracy:  
0.9602  
Epoch 28539/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9595  
Epoch 28540/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9598  
Epoch 28541/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9601  
Epoch 28542/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9592  
Epoch 28543/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9595  
Epoch 28544/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9591  
Epoch 28545/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9594  
Epoch 28546/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy: 0.9588  
Epoch 28547/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9588  
Epoch 28548/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy: 0.9602  
Epoch 28549/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy: 0.9592  
Epoch 28550/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9597  
Epoch 28551/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0306 - accuracy: 0.9600  
Epoch 28552/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy: 0.9600  
Epoch 28553/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9599  
Epoch 28554/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy: 0.9596  
Epoch 28555/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9607  
Epoch 28556/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy: 0.9589  
Epoch 28557/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy: 0.9591  
Epoch 28558/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy: 0.9591  
Epoch 28559/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0299 - accuracy: 0.9595  
Epoch 28560/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9591  
 Epoch 28561/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy: 0.9599  
 Epoch 28562/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy: 0.9591  
 Epoch 28563/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy: 0.9598  
 Epoch 28564/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy: 0.9594  
 Epoch 28565/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy: 0.9597  
 Epoch 28566/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy: 0.9595  
 Epoch 28567/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9604  
 Epoch 28568/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9593  
 Epoch 28569/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9596  
 Epoch 28570/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9585  
 Epoch 28571/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9605  
 Epoch 28572/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9595  
 Epoch 28573/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0312 - accuracy: 0.9597  
 Epoch 28574/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9598  
 Epoch 28575/100000  
 2/2 [=====] - 0s 120ms/step - loss: 0.0307 - accuracy: 0.9597  
 Epoch 28576/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9597  
Epoch 28577/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9595  
Epoch 28578/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9582  
Epoch 28579/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9598  
Epoch 28580/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9599  
Epoch 28581/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9596  
Epoch 28582/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9598  
Epoch 28583/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9588  
Epoch 28584/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9590  
Epoch 28585/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9592  
Epoch 28586/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9597  
Epoch 28587/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9590  
Epoch 28588/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9601  
Epoch 28589/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0304 - accuracy:  
0.9596  
Epoch 28590/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9598  
Epoch 28591/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9596  
Epoch 28592/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9588  
Epoch 28593/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9601  
Epoch 28594/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9601  
Epoch 28595/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9607  
Epoch 28596/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9601  
Epoch 28597/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9593  
Epoch 28598/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9604  
Epoch 28599/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy:  
0.9604  
Epoch 28600/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9604  
Epoch 28601/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0301 - accuracy:  
0.9595  
Epoch 28602/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9587  
Epoch 28603/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0310 - accuracy:  
0.9593  
Epoch 28604/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9596  
Epoch 28605/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9586  
Epoch 28606/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9603  
Epoch 28607/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9595  
Epoch 28608/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9600  
Epoch 28609/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9599  
Epoch 28610/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0296 - accuracy:  
0.9597  
Epoch 28611/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0300 - accuracy:  
0.9595  
Epoch 28612/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9599  
Epoch 28613/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9599  
Epoch 28614/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9607  
Epoch 28615/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9584  
Epoch 28616/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy:  
0.9586  
Epoch 28617/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9588  
Epoch 28618/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9590  
Epoch 28619/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0299 - accuracy:  
0.9589  
Epoch 28620/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9587  
Epoch 28621/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9604  
Epoch 28622/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9600  
Epoch 28623/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0308 - accuracy:  
0.9596  
Epoch 28624/100000

2/2 [=====] - 0s 120ms/step - loss: 0.0296 - accuracy:  
0.9603  
Epoch 28625/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9600  
Epoch 28626/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9603  
Epoch 28627/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy:  
0.9592  
Epoch 28628/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9596  
Epoch 28629/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9604  
Epoch 28630/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9594  
Epoch 28631/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9597  
Epoch 28632/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9592  
Epoch 28633/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9594  
Epoch 28634/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9597  
Epoch 28635/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9600  
Epoch 28636/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9601  
Epoch 28637/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0305 - accuracy:  
0.9598  
Epoch 28638/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9594  
Epoch 28639/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0299 - accuracy:  
0.9590  
Epoch 28640/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9600  
Epoch 28641/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0302 - accuracy:  
0.9604  
Epoch 28642/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9595  
Epoch 28643/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9593  
Epoch 28644/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9594  
Epoch 28645/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9595  
Epoch 28646/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9602  
Epoch 28647/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy:  
0.9590  
Epoch 28648/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9597  
Epoch 28649/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9586  
Epoch 28650/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9594  
Epoch 28651/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9594  
Epoch 28652/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9599  
Epoch 28653/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9601  
Epoch 28654/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9588  
Epoch 28655/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9593  
Epoch 28656/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9607  
Epoch 28657/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy:  
0.9589  
Epoch 28658/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9586  
Epoch 28659/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9605  
Epoch 28660/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9608  
Epoch 28661/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9602  
Epoch 28662/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9599  
Epoch 28663/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0294 - accuracy:  
0.9585  
Epoch 28664/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0298 - accuracy:  
0.9595  
Epoch 28665/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9604  
Epoch 28666/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9595  
Epoch 28667/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9596  
Epoch 28668/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9595  
Epoch 28669/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy:  
0.9591  
Epoch 28670/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9598  
Epoch 28671/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy:  
0.9598  
Epoch 28672/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9589  
 Epoch 28673/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy: 0.9594  
 Epoch 28674/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy: 0.9585  
 Epoch 28675/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy: 0.9586  
 Epoch 28676/100000  
 2/2 [=====] - 0s 128ms/step - loss: 0.0298 - accuracy: 0.9593  
 Epoch 28677/100000  
 2/2 [=====] - 0s 123ms/step - loss: 0.0309 - accuracy: 0.9599  
 Epoch 28678/100000  
 2/2 [=====] - 0s 124ms/step - loss: 0.0303 - accuracy: 0.9595  
 Epoch 28679/100000  
 2/2 [=====] - 0s 124ms/step - loss: 0.0302 - accuracy: 0.9587  
 Epoch 28680/100000  
 2/2 [=====] - 0s 123ms/step - loss: 0.0302 - accuracy: 0.9585  
 Epoch 28681/100000  
 2/2 [=====] - 0s 137ms/step - loss: 0.0304 - accuracy: 0.9596  
 Epoch 28682/100000  
 2/2 [=====] - 0s 126ms/step - loss: 0.0315 - accuracy: 0.9593  
 Epoch 28683/100000  
 2/2 [=====] - 0s 124ms/step - loss: 0.0318 - accuracy: 0.9591  
 Epoch 28684/100000  
 2/2 [=====] - 0s 128ms/step - loss: 0.0318 - accuracy: 0.9598  
 Epoch 28685/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy: 0.9591  
 Epoch 28686/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0313 - accuracy: 0.9595  
 Epoch 28687/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0314 - accuracy: 0.9602  
 Epoch 28688/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy:  
0.9595  
Epoch 28689/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy:  
0.9603  
Epoch 28690/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9589  
Epoch 28691/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9605  
Epoch 28692/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9597  
Epoch 28693/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0304 - accuracy:  
0.9598  
Epoch 28694/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9592  
Epoch 28695/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9595  
Epoch 28696/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0300 - accuracy:  
0.9605  
Epoch 28697/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9592  
Epoch 28698/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9594  
Epoch 28699/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9597  
Epoch 28700/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0300 - accuracy:  
0.9599  
Epoch 28701/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9598  
Epoch 28702/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9588  
Epoch 28703/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9594  
Epoch 28704/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
 0.9600  
 Epoch 28705/100000  
 2/2 [=====] - 0s 113ms/step - loss: 0.0306 - accuracy:  
 0.9601  
 Epoch 28706/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0297 - accuracy:  
 0.9595  
 Epoch 28707/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
 0.9600  
 Epoch 28708/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
 0.9591  
 Epoch 28709/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0301 - accuracy:  
 0.9599  
 Epoch 28710/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy:  
 0.9595  
 Epoch 28711/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
 0.9599  
 Epoch 28712/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
 0.9601  
 Epoch 28713/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0309 - accuracy:  
 0.9603  
 Epoch 28714/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0311 - accuracy:  
 0.9600  
 Epoch 28715/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
 0.9592  
 Epoch 28716/100000  
 2/2 [=====] - 0s 121ms/step - loss: 0.0304 - accuracy:  
 0.9593  
 Epoch 28717/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
 0.9599  
 Epoch 28718/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
 0.9593  
 Epoch 28719/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
 0.9602  
 Epoch 28720/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy:  
0.9598  
Epoch 28721/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9598  
Epoch 28722/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0316 - accuracy:  
0.9595  
Epoch 28723/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0314 - accuracy:  
0.9597  
Epoch 28724/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9599  
Epoch 28725/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9594  
Epoch 28726/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9591  
Epoch 28727/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9602  
Epoch 28728/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0309 - accuracy:  
0.9603  
Epoch 28729/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0306 - accuracy:  
0.9601  
Epoch 28730/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9599  
Epoch 28731/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9597  
Epoch 28732/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9597  
Epoch 28733/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9606  
Epoch 28734/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0315 - accuracy:  
0.9596  
Epoch 28735/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0309 - accuracy:  
0.9599  
Epoch 28736/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9595  
 Epoch 28737/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9603  
 Epoch 28738/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9597  
 Epoch 28739/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9604  
 Epoch 28740/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy: 0.9594  
 Epoch 28741/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9596  
 Epoch 28742/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy: 0.9593  
 Epoch 28743/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy: 0.9599  
 Epoch 28744/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy: 0.9600  
 Epoch 28745/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9599  
 Epoch 28746/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy: 0.9597  
 Epoch 28747/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy: 0.9596  
 Epoch 28748/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9602  
 Epoch 28749/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9600  
 Epoch 28750/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy: 0.9597  
 Epoch 28751/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy: 0.9596  
 Epoch 28752/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9602  
Epoch 28753/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9598  
Epoch 28754/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9596  
Epoch 28755/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9600  
Epoch 28756/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9601  
Epoch 28757/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9592  
Epoch 28758/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9585  
Epoch 28759/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9593  
Epoch 28760/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy:  
0.9589  
Epoch 28761/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9592  
Epoch 28762/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9597  
Epoch 28763/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0295 - accuracy:  
0.9594  
Epoch 28764/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0301 - accuracy:  
0.9600  
Epoch 28765/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9594  
Epoch 28766/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9601  
Epoch 28767/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9594  
Epoch 28768/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0314 - accuracy:  
0.9592  
Epoch 28769/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9600  
Epoch 28770/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9597  
Epoch 28771/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0316 - accuracy:  
0.9595  
Epoch 28772/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9589  
Epoch 28773/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0309 - accuracy:  
0.9605  
Epoch 28774/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9602  
Epoch 28775/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy:  
0.9599  
Epoch 28776/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9592  
Epoch 28777/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0319 - accuracy:  
0.9587  
Epoch 28778/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9600  
Epoch 28779/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0314 - accuracy:  
0.9595  
Epoch 28780/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9593  
Epoch 28781/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9597  
Epoch 28782/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0312 - accuracy:  
0.9594  
Epoch 28783/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy:  
0.9595  
Epoch 28784/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9597  
Epoch 28785/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9595  
Epoch 28786/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9598  
Epoch 28787/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9589  
Epoch 28788/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9589  
Epoch 28789/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9593  
Epoch 28790/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9599  
Epoch 28791/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9612  
Epoch 28792/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9598  
Epoch 28793/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9603  
Epoch 28794/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9592  
Epoch 28795/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9603  
Epoch 28796/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9604  
Epoch 28797/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9600  
Epoch 28798/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9597  
Epoch 28799/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9602  
Epoch 28800/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy: 0.9607  
Epoch 28801/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9600  
Epoch 28802/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0320 - accuracy: 0.9591  
Epoch 28803/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy: 0.9592  
Epoch 28804/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9599  
Epoch 28805/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy: 0.9599  
Epoch 28806/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0311 - accuracy: 0.9601  
Epoch 28807/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9599  
Epoch 28808/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy: 0.9594  
Epoch 28809/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9597  
Epoch 28810/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9592  
Epoch 28811/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy: 0.9597  
Epoch 28812/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy: 0.9606  
Epoch 28813/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy: 0.9581  
Epoch 28814/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy: 0.9604  
Epoch 28815/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9601  
Epoch 28816/100000

2/2 [=====] - 0s 120ms/step - loss: 0.0299 - accuracy:  
0.9603  
Epoch 28817/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0304 - accuracy:  
0.9605  
Epoch 28818/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9596  
Epoch 28819/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9604  
Epoch 28820/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9594  
Epoch 28821/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9595  
Epoch 28822/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0303 - accuracy:  
0.9602  
Epoch 28823/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy:  
0.9595  
Epoch 28824/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9593  
Epoch 28825/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0298 - accuracy:  
0.9585  
Epoch 28826/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9609  
Epoch 28827/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9592  
Epoch 28828/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9593  
Epoch 28829/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0299 - accuracy:  
0.9597  
Epoch 28830/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9597  
Epoch 28831/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9597  
Epoch 28832/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9604  
Epoch 28833/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9583  
Epoch 28834/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9595  
Epoch 28835/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9592  
Epoch 28836/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9604  
Epoch 28837/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9598  
Epoch 28838/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9595  
Epoch 28839/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9598  
Epoch 28840/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0308 - accuracy:  
0.9602  
Epoch 28841/100000  
2/2 [=====] - 0s 126ms/step - loss: 0.0308 - accuracy:  
0.9582  
Epoch 28842/100000  
2/2 [=====] - 0s 131ms/step - loss: 0.0303 - accuracy:  
0.9596  
Epoch 28843/100000  
2/2 [=====] - 0s 127ms/step - loss: 0.0308 - accuracy:  
0.9595  
Epoch 28844/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0307 - accuracy:  
0.9592  
Epoch 28845/100000  
2/2 [=====] - 0s 126ms/step - loss: 0.0301 - accuracy:  
0.9598  
Epoch 28846/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0305 - accuracy:  
0.9583  
Epoch 28847/100000  
2/2 [=====] - 0s 134ms/step - loss: 0.0310 - accuracy:  
0.9606  
Epoch 28848/100000

2/2 [=====] - 0s 122ms/step - loss: 0.0311 - accuracy:  
0.9589  
Epoch 28849/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9591  
Epoch 28850/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9599  
Epoch 28851/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy:  
0.9587  
Epoch 28852/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9602  
Epoch 28853/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9598  
Epoch 28854/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0315 - accuracy:  
0.9604  
Epoch 28855/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9591  
Epoch 28856/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9597  
Epoch 28857/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9605  
Epoch 28858/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9597  
Epoch 28859/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9584  
Epoch 28860/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9596  
Epoch 28861/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9608  
Epoch 28862/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9605  
Epoch 28863/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9602  
Epoch 28864/100000



2/2 [=====] - 0s 118ms/step - loss: 0.0298 - accuracy: 0.9593  
Epoch 28865/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy: 0.9598  
Epoch 28866/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy: 0.9600  
Epoch 28867/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0295 - accuracy: 0.9593  
Epoch 28868/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9596  
Epoch 28869/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy: 0.9584  
Epoch 28870/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy: 0.9603  
Epoch 28871/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy: 0.9591  
Epoch 28872/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9599  
Epoch 28873/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0309 - accuracy: 0.9599  
Epoch 28874/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy: 0.9598  
Epoch 28875/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0307 - accuracy: 0.9599  
Epoch 28876/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy: 0.9597  
Epoch 28877/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9598  
Epoch 28878/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9592  
Epoch 28879/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0302 - accuracy: 0.9593  
Epoch 28880/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9595  
Epoch 28881/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9597  
Epoch 28882/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9598  
Epoch 28883/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0303 - accuracy: 0.9592  
Epoch 28884/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy: 0.9598  
Epoch 28885/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy: 0.9599  
Epoch 28886/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy: 0.9596  
Epoch 28887/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9604  
Epoch 28888/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0297 - accuracy: 0.9597  
Epoch 28889/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0300 - accuracy: 0.9595  
Epoch 28890/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9590  
Epoch 28891/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy: 0.9588  
Epoch 28892/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9593  
Epoch 28893/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy: 0.9604  
Epoch 28894/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0305 - accuracy: 0.9592  
Epoch 28895/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9595  
Epoch 28896/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy: 0.9591  
Epoch 28897/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy: 0.9605  
Epoch 28898/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy: 0.9606  
Epoch 28899/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0315 - accuracy: 0.9601  
Epoch 28900/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy: 0.9599  
Epoch 28901/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9604  
Epoch 28902/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy: 0.9598  
Epoch 28903/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy: 0.9610  
Epoch 28904/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9590  
Epoch 28905/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy: 0.9588  
Epoch 28906/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0303 - accuracy: 0.9598  
Epoch 28907/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9595  
Epoch 28908/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0318 - accuracy: 0.9591  
Epoch 28909/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0306 - accuracy: 0.9607  
Epoch 28910/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy: 0.9599  
Epoch 28911/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy: 0.9595  
Epoch 28912/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9597  
Epoch 28913/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9593  
Epoch 28914/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9586  
Epoch 28915/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9601  
Epoch 28916/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9599  
Epoch 28917/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9595  
Epoch 28918/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9592  
Epoch 28919/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9597  
Epoch 28920/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9593  
Epoch 28921/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9616  
Epoch 28922/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0298 - accuracy:  
0.9596  
Epoch 28923/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9601  
Epoch 28924/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9594  
Epoch 28925/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9594  
Epoch 28926/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9598  
Epoch 28927/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9600  
Epoch 28928/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9593  
Epoch 28929/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy:  
0.9590  
Epoch 28930/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy:  
0.9599  
Epoch 28931/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9596  
Epoch 28932/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0306 - accuracy:  
0.9595  
Epoch 28933/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9594  
Epoch 28934/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9593  
Epoch 28935/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9597  
Epoch 28936/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9595  
Epoch 28937/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9594  
Epoch 28938/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9601  
Epoch 28939/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0305 - accuracy:  
0.9597  
Epoch 28940/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0307 - accuracy:  
0.9603  
Epoch 28941/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9597  
Epoch 28942/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9596  
Epoch 28943/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9589  
Epoch 28944/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9595  
Epoch 28945/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0312 - accuracy:  
0.9600  
Epoch 28946/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9604  
Epoch 28947/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9593  
Epoch 28948/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0308 - accuracy:  
0.9597  
Epoch 28949/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9595  
Epoch 28950/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9598  
Epoch 28951/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy:  
0.9592  
Epoch 28952/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9602  
Epoch 28953/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0301 - accuracy:  
0.9596  
Epoch 28954/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0308 - accuracy:  
0.9595  
Epoch 28955/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9600  
Epoch 28956/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy:  
0.9602  
Epoch 28957/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9588  
Epoch 28958/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9593  
Epoch 28959/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9597  
Epoch 28960/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9597  
Epoch 28961/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy:  
0.9593  
Epoch 28962/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0299 - accuracy:  
0.9599  
Epoch 28963/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0302 - accuracy:  
0.9596  
Epoch 28964/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9600  
Epoch 28965/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0298 - accuracy:  
0.9602  
Epoch 28966/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9591  
Epoch 28967/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9590  
Epoch 28968/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0303 - accuracy:  
0.9608  
Epoch 28969/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9584  
Epoch 28970/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9591  
Epoch 28971/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9593  
Epoch 28972/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9594  
Epoch 28973/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9591  
Epoch 28974/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9593  
Epoch 28975/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9604  
Epoch 28976/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9591  
Epoch 28977/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9596  
Epoch 28978/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9596  
Epoch 28979/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9604  
Epoch 28980/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0303 - accuracy:  
0.9595  
Epoch 28981/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0313 - accuracy:  
0.9595  
Epoch 28982/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9604  
Epoch 28983/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0303 - accuracy:  
0.9592  
Epoch 28984/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9602  
Epoch 28985/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9593  
Epoch 28986/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0303 - accuracy:  
0.9599  
Epoch 28987/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0305 - accuracy:  
0.9609  
Epoch 28988/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0300 - accuracy:  
0.9602  
Epoch 28989/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0303 - accuracy:  
0.9585  
Epoch 28990/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9599  
Epoch 28991/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9588  
Epoch 28992/100000



2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9607  
Epoch 28993/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9596  
Epoch 28994/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9601  
Epoch 28995/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9602  
Epoch 28996/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9597  
Epoch 28997/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0302 - accuracy:  
0.9591  
Epoch 28998/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9587  
Epoch 28999/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9588  
Epoch 29000/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0304 - accuracy:  
0.9590  
Epoch 29001/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9596  
Epoch 29002/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9600  
Epoch 29003/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9591  
Epoch 29004/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9594  
Epoch 29005/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9596  
Epoch 29006/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9596  
Epoch 29007/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9594  
Epoch 29008/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy:  
0.9601  
Epoch 29009/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9595  
Epoch 29010/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9591  
Epoch 29011/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9597  
Epoch 29012/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9599  
Epoch 29013/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0305 - accuracy:  
0.9609  
Epoch 29014/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9602  
Epoch 29015/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9597  
Epoch 29016/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9592  
Epoch 29017/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9603  
Epoch 29018/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9601  
Epoch 29019/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy:  
0.9596  
Epoch 29020/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0306 - accuracy:  
0.9599  
Epoch 29021/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9590  
Epoch 29022/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0322 - accuracy:  
0.9600  
Epoch 29023/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0312 - accuracy:  
0.9591  
Epoch 29024/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0302 - accuracy:  
0.9598  
Epoch 29025/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0303 - accuracy:  
0.9601  
Epoch 29026/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9594  
Epoch 29027/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9598  
Epoch 29028/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9601  
Epoch 29029/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9601  
Epoch 29030/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0320 - accuracy:  
0.9591  
Epoch 29031/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0318 - accuracy:  
0.9606  
Epoch 29032/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9598  
Epoch 29033/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0311 - accuracy:  
0.9594  
Epoch 29034/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9597  
Epoch 29035/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0302 - accuracy:  
0.9590  
Epoch 29036/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9602  
Epoch 29037/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0310 - accuracy:  
0.9594  
Epoch 29038/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9593  
Epoch 29039/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9592  
Epoch 29040/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9590  
Epoch 29041/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy:  
0.9601  
Epoch 29042/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9593  
Epoch 29043/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9592  
Epoch 29044/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9612  
Epoch 29045/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9600  
Epoch 29046/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9597  
Epoch 29047/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9606  
Epoch 29048/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9596  
Epoch 29049/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9603  
Epoch 29050/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0304 - accuracy:  
0.9595  
Epoch 29051/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9594  
Epoch 29052/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0301 - accuracy:  
0.9587  
Epoch 29053/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9594  
Epoch 29054/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9601  
Epoch 29055/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9602  
Epoch 29056/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9596  
Epoch 29057/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9598  
Epoch 29058/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9601  
Epoch 29059/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0298 - accuracy:  
0.9599  
Epoch 29060/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy:  
0.9591  
Epoch 29061/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9592  
Epoch 29062/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9596  
Epoch 29063/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0299 - accuracy:  
0.9585  
Epoch 29064/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9593  
Epoch 29065/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9597  
Epoch 29066/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9594  
Epoch 29067/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9597  
Epoch 29068/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9603  
Epoch 29069/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9588  
Epoch 29070/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0311 - accuracy:  
0.9593  
Epoch 29071/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9595  
Epoch 29072/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy: 0.9601  
Epoch 29073/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy: 0.9591  
Epoch 29074/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0302 - accuracy: 0.9597  
Epoch 29075/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy: 0.9597  
Epoch 29076/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9587  
Epoch 29077/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0302 - accuracy: 0.9603  
Epoch 29078/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9597  
Epoch 29079/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy: 0.9593  
Epoch 29080/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy: 0.9599  
Epoch 29081/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy: 0.9606  
Epoch 29082/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9605  
Epoch 29083/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy: 0.9589  
Epoch 29084/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy: 0.9591  
Epoch 29085/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9595  
Epoch 29086/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy: 0.9600  
Epoch 29087/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9593  
Epoch 29088/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy: 0.9595  
Epoch 29089/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy: 0.9597  
Epoch 29090/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9602  
Epoch 29091/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy: 0.9599  
Epoch 29092/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9589  
Epoch 29093/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9588  
Epoch 29094/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy: 0.9595  
Epoch 29095/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9597  
Epoch 29096/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9596  
Epoch 29097/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9597  
Epoch 29098/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy: 0.9594  
Epoch 29099/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy: 0.9604  
Epoch 29100/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy: 0.9594  
Epoch 29101/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9596  
Epoch 29102/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy: 0.9599  
Epoch 29103/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy: 0.9590  
Epoch 29104/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy:  
0.9591  
Epoch 29105/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9602  
Epoch 29106/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9593  
Epoch 29107/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9596  
Epoch 29108/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0312 - accuracy:  
0.9596  
Epoch 29109/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9607  
Epoch 29110/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9601  
Epoch 29111/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9595  
Epoch 29112/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9606  
Epoch 29113/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9602  
Epoch 29114/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy:  
0.9598  
Epoch 29115/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0312 - accuracy:  
0.9601  
Epoch 29116/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9601  
Epoch 29117/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9594  
Epoch 29118/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9596  
Epoch 29119/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0317 - accuracy:  
0.9591  
Epoch 29120/100000



2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9601  
Epoch 29121/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9600  
Epoch 29122/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0304 - accuracy:  
0.9600  
Epoch 29123/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9594  
Epoch 29124/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9589  
Epoch 29125/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9603  
Epoch 29126/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9594  
Epoch 29127/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9602  
Epoch 29128/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0303 - accuracy:  
0.9595  
Epoch 29129/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9592  
Epoch 29130/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9599  
Epoch 29131/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0299 - accuracy:  
0.9596  
Epoch 29132/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9601  
Epoch 29133/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9596  
Epoch 29134/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0299 - accuracy:  
0.9593  
Epoch 29135/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9600  
Epoch 29136/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0303 - accuracy:  
0.9588  
Epoch 29137/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9594  
Epoch 29138/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0305 - accuracy:  
0.9592  
Epoch 29139/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9595  
Epoch 29140/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9594  
Epoch 29141/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0309 - accuracy:  
0.9592  
Epoch 29142/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy:  
0.9599  
Epoch 29143/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9599  
Epoch 29144/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9595  
Epoch 29145/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9592  
Epoch 29146/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9619  
Epoch 29147/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0307 - accuracy:  
0.9604  
Epoch 29148/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9593  
Epoch 29149/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9597  
Epoch 29150/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0311 - accuracy:  
0.9596  
Epoch 29151/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9608  
Epoch 29152/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0302 - accuracy: 0.9598  
Epoch 29153/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy: 0.9593  
Epoch 29154/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0301 - accuracy: 0.9600  
Epoch 29155/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy: 0.9605  
Epoch 29156/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9597  
Epoch 29157/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0311 - accuracy: 0.9610  
Epoch 29158/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9603  
Epoch 29159/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9600  
Epoch 29160/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9603  
Epoch 29161/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9591  
Epoch 29162/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy: 0.9592  
Epoch 29163/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9599  
Epoch 29164/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy: 0.9608  
Epoch 29165/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy: 0.9594  
Epoch 29166/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0309 - accuracy: 0.9594  
Epoch 29167/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy: 0.9600  
Epoch 29168/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9592  
Epoch 29169/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy:  
0.9595  
Epoch 29170/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9603  
Epoch 29171/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9591  
Epoch 29172/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0299 - accuracy:  
0.9601  
Epoch 29173/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9594  
Epoch 29174/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9587  
Epoch 29175/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9600  
Epoch 29176/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy:  
0.9591  
Epoch 29177/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0303 - accuracy:  
0.9602  
Epoch 29178/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9599  
Epoch 29179/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0304 - accuracy:  
0.9587  
Epoch 29180/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0308 - accuracy:  
0.9596  
Epoch 29181/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9606  
Epoch 29182/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0327 - accuracy:  
0.9608  
Epoch 29183/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9601  
Epoch 29184/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy:  
0.9591  
Epoch 29185/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9601  
Epoch 29186/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy:  
0.9597  
Epoch 29187/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9590  
Epoch 29188/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9596  
Epoch 29189/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy:  
0.9606  
Epoch 29190/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9611  
Epoch 29191/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9596  
Epoch 29192/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9596  
Epoch 29193/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9606  
Epoch 29194/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9599  
Epoch 29195/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9596  
Epoch 29196/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9598  
Epoch 29197/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9593  
Epoch 29198/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9591  
Epoch 29199/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9598  
Epoch 29200/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9596  
Epoch 29201/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9589  
Epoch 29202/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9595  
Epoch 29203/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9592  
Epoch 29204/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy: 0.9597  
Epoch 29205/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9589  
Epoch 29206/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9587  
Epoch 29207/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy: 0.9600  
Epoch 29208/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9597  
Epoch 29209/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy: 0.9599  
Epoch 29210/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy: 0.9594  
Epoch 29211/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy: 0.9597  
Epoch 29212/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy: 0.9589  
Epoch 29213/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy: 0.9594  
Epoch 29214/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9595  
Epoch 29215/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9588  
Epoch 29216/100000

2/2 [=====] - 0s 119ms/step - loss: 0.0299 - accuracy: 0.9596  
Epoch 29217/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0304 - accuracy: 0.9600  
Epoch 29218/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy: 0.9598  
Epoch 29219/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9597  
Epoch 29220/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9598  
Epoch 29221/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy: 0.9590  
Epoch 29222/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy: 0.9602  
Epoch 29223/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0299 - accuracy: 0.9588  
Epoch 29224/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9609  
Epoch 29225/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy: 0.9591  
Epoch 29226/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy: 0.9588  
Epoch 29227/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9591  
Epoch 29228/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9596  
Epoch 29229/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy: 0.9591  
Epoch 29230/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy: 0.9599  
Epoch 29231/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9596  
Epoch 29232/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9596  
Epoch 29233/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0302 - accuracy:  
0.9597  
Epoch 29234/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9597  
Epoch 29235/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9603  
Epoch 29236/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9598  
Epoch 29237/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy:  
0.9597  
Epoch 29238/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9600  
Epoch 29239/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9598  
Epoch 29240/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9603  
Epoch 29241/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy:  
0.9589  
Epoch 29242/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9602  
Epoch 29243/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0301 - accuracy:  
0.9601  
Epoch 29244/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9597  
Epoch 29245/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0304 - accuracy:  
0.9601  
Epoch 29246/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9603  
Epoch 29247/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9595  
Epoch 29248/100000



2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy: 0.9598  
Epoch 29249/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy: 0.9601  
Epoch 29250/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy: 0.9607  
Epoch 29251/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy: 0.9594  
Epoch 29252/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9603  
Epoch 29253/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9584  
Epoch 29254/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy: 0.9596  
Epoch 29255/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy: 0.9604  
Epoch 29256/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9592  
Epoch 29257/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0313 - accuracy: 0.9591  
Epoch 29258/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0320 - accuracy: 0.9602  
Epoch 29259/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy: 0.9609  
Epoch 29260/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy: 0.9607  
Epoch 29261/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0315 - accuracy: 0.9589  
Epoch 29262/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy: 0.9595  
Epoch 29263/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy: 0.9597  
Epoch 29264/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9592  
Epoch 29265/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0313 - accuracy:  
0.9603  
Epoch 29266/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9591  
Epoch 29267/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9596  
Epoch 29268/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9602  
Epoch 29269/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0314 - accuracy:  
0.9596  
Epoch 29270/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9593  
Epoch 29271/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9599  
Epoch 29272/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0314 - accuracy:  
0.9597  
Epoch 29273/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0317 - accuracy:  
0.9603  
Epoch 29274/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0310 - accuracy:  
0.9592  
Epoch 29275/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9589  
Epoch 29276/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9599  
Epoch 29277/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy:  
0.9596  
Epoch 29278/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9599  
Epoch 29279/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0324 - accuracy:  
0.9595  
Epoch 29280/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9588  
Epoch 29281/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9605  
Epoch 29282/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9594  
Epoch 29283/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9591  
Epoch 29284/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9596  
Epoch 29285/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9601  
Epoch 29286/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9593  
Epoch 29287/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0317 - accuracy:  
0.9603  
Epoch 29288/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy:  
0.9601  
Epoch 29289/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9603  
Epoch 29290/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9599  
Epoch 29291/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9590  
Epoch 29292/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9596  
Epoch 29293/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy:  
0.9589  
Epoch 29294/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9593  
Epoch 29295/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9595  
Epoch 29296/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9588  
Epoch 29297/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9598  
Epoch 29298/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy:  
0.9606  
Epoch 29299/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9598  
Epoch 29300/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9601  
Epoch 29301/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9605  
Epoch 29302/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy:  
0.9584  
Epoch 29303/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9594  
Epoch 29304/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9590  
Epoch 29305/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9596  
Epoch 29306/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9591  
Epoch 29307/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9589  
Epoch 29308/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9590  
Epoch 29309/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9598  
Epoch 29310/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9593  
Epoch 29311/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9602  
Epoch 29312/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9610  
Epoch 29313/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9598  
Epoch 29314/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9600  
Epoch 29315/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9594  
Epoch 29316/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9594  
Epoch 29317/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9600  
Epoch 29318/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9596  
Epoch 29319/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0297 - accuracy:  
0.9595  
Epoch 29320/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9596  
Epoch 29321/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9597  
Epoch 29322/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9594  
Epoch 29323/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9592  
Epoch 29324/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9600  
Epoch 29325/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9592  
Epoch 29326/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0321 - accuracy:  
0.9589  
Epoch 29327/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9590  
Epoch 29328/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9600  
Epoch 29329/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0301 - accuracy:  
0.9607  
Epoch 29330/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9587  
Epoch 29331/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0323 - accuracy:  
0.9604  
Epoch 29332/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9598  
Epoch 29333/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0309 - accuracy:  
0.9595  
Epoch 29334/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9590  
Epoch 29335/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9601  
Epoch 29336/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9597  
Epoch 29337/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9598  
Epoch 29338/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9596  
Epoch 29339/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9596  
Epoch 29340/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9598  
Epoch 29341/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9598  
Epoch 29342/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0311 - accuracy:  
0.9586  
Epoch 29343/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9594  
Epoch 29344/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9605  
Epoch 29345/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy:  
0.9594  
Epoch 29346/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9590  
Epoch 29347/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9601  
Epoch 29348/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9590  
Epoch 29349/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9594  
Epoch 29350/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9596  
Epoch 29351/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9589  
Epoch 29352/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9587  
Epoch 29353/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0308 - accuracy:  
0.9608  
Epoch 29354/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9602  
Epoch 29355/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9596  
Epoch 29356/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9612  
Epoch 29357/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9593  
Epoch 29358/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9594  
Epoch 29359/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9593  
Epoch 29360/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9600  
Epoch 29361/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9598  
Epoch 29362/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9584  
Epoch 29363/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9599  
Epoch 29364/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9604  
Epoch 29365/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9604  
Epoch 29366/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9590  
Epoch 29367/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0300 - accuracy:  
0.9599  
Epoch 29368/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9592  
Epoch 29369/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9601  
Epoch 29370/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9592  
Epoch 29371/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9596  
Epoch 29372/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9590  
Epoch 29373/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9605  
Epoch 29374/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0305 - accuracy:  
0.9603  
Epoch 29375/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0305 - accuracy:  
0.9593  
Epoch 29376/100000



2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9589  
Epoch 29377/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9594  
Epoch 29378/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9605  
Epoch 29379/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9604  
Epoch 29380/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9600  
Epoch 29381/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9602  
Epoch 29382/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy:  
0.9598  
Epoch 29383/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0301 - accuracy:  
0.9597  
Epoch 29384/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9590  
Epoch 29385/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9586  
Epoch 29386/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9594  
Epoch 29387/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9596  
Epoch 29388/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9599  
Epoch 29389/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9598  
Epoch 29390/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0305 - accuracy:  
0.9597  
Epoch 29391/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9607  
Epoch 29392/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9596  
Epoch 29393/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9590  
Epoch 29394/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9601  
Epoch 29395/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy:  
0.9590  
Epoch 29396/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9596  
Epoch 29397/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9609  
Epoch 29398/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0311 - accuracy:  
0.9595  
Epoch 29399/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9605  
Epoch 29400/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9595  
Epoch 29401/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9596  
Epoch 29402/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy:  
0.9592  
Epoch 29403/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9610  
Epoch 29404/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9598  
Epoch 29405/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9596  
Epoch 29406/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9590  
Epoch 29407/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy:  
0.9604  
Epoch 29408/100000

2/2 [=====] - 0s 120ms/step - loss: 0.0308 - accuracy:  
0.9599  
Epoch 29409/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9598  
Epoch 29410/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9598  
Epoch 29411/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0303 - accuracy:  
0.9604  
Epoch 29412/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy:  
0.9606  
Epoch 29413/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9590  
Epoch 29414/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0316 - accuracy:  
0.9597  
Epoch 29415/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0310 - accuracy:  
0.9592  
Epoch 29416/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9596  
Epoch 29417/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9593  
Epoch 29418/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy:  
0.9600  
Epoch 29419/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9589  
Epoch 29420/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9594  
Epoch 29421/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0307 - accuracy:  
0.9596  
Epoch 29422/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9596  
Epoch 29423/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy:  
0.9601  
Epoch 29424/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy: 0.9594  
Epoch 29425/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy: 0.9595  
Epoch 29426/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy: 0.9595  
Epoch 29427/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy: 0.9603  
Epoch 29428/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0312 - accuracy: 0.9602  
Epoch 29429/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy: 0.9601  
Epoch 29430/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9597  
Epoch 29431/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0306 - accuracy: 0.9589  
Epoch 29432/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0308 - accuracy: 0.9592  
Epoch 29433/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0314 - accuracy: 0.9602  
Epoch 29434/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0313 - accuracy: 0.9587  
Epoch 29435/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0309 - accuracy: 0.9598  
Epoch 29436/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9593  
Epoch 29437/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9591  
Epoch 29438/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy: 0.9589  
Epoch 29439/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9604  
Epoch 29440/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0315 - accuracy:  
0.9596  
Epoch 29441/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9599  
Epoch 29442/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9603  
Epoch 29443/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9598  
Epoch 29444/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9600  
Epoch 29445/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9600  
Epoch 29446/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9604  
Epoch 29447/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9608  
Epoch 29448/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9604  
Epoch 29449/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9587  
Epoch 29450/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9593  
Epoch 29451/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0303 - accuracy:  
0.9602  
Epoch 29452/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9595  
Epoch 29453/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy:  
0.9596  
Epoch 29454/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0310 - accuracy:  
0.9593  
Epoch 29455/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9606  
Epoch 29456/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9607  
Epoch 29457/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0299 - accuracy:  
0.9590  
Epoch 29458/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9604  
Epoch 29459/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9606  
Epoch 29460/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9596  
Epoch 29461/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9596  
Epoch 29462/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9591  
Epoch 29463/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9594  
Epoch 29464/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9588  
Epoch 29465/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9603  
Epoch 29466/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9592  
Epoch 29467/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9592  
Epoch 29468/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9586  
Epoch 29469/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9591  
Epoch 29470/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9604  
Epoch 29471/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9599  
Epoch 29472/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9596  
Epoch 29473/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0309 - accuracy:  
0.9592  
Epoch 29474/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9598  
Epoch 29475/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9601  
Epoch 29476/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy:  
0.9605  
Epoch 29477/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0311 - accuracy:  
0.9597  
Epoch 29478/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9590  
Epoch 29479/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9601  
Epoch 29480/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0296 - accuracy:  
0.9589  
Epoch 29481/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9598  
Epoch 29482/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9597  
Epoch 29483/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9601  
Epoch 29484/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9592  
Epoch 29485/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0307 - accuracy:  
0.9610  
Epoch 29486/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9604  
Epoch 29487/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9603  
Epoch 29488/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9597  
Epoch 29489/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9594  
Epoch 29490/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9599  
Epoch 29491/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9591  
Epoch 29492/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9592  
Epoch 29493/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9593  
Epoch 29494/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0304 - accuracy:  
0.9592  
Epoch 29495/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9592  
Epoch 29496/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0305 - accuracy:  
0.9603  
Epoch 29497/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0313 - accuracy:  
0.9593  
Epoch 29498/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9598  
Epoch 29499/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0311 - accuracy:  
0.9597  
Epoch 29500/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9595  
Epoch 29501/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9602  
Epoch 29502/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9589  
Epoch 29503/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy:  
0.9593  
Epoch 29504/100000



2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9597  
Epoch 29505/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9601  
Epoch 29506/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0304 - accuracy:  
0.9589  
Epoch 29507/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy:  
0.9593  
Epoch 29508/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9591  
Epoch 29509/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9596  
Epoch 29510/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9599  
Epoch 29511/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy:  
0.9597  
Epoch 29512/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9597  
Epoch 29513/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9588  
Epoch 29514/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0296 - accuracy:  
0.9602  
Epoch 29515/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9606  
Epoch 29516/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9607  
Epoch 29517/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9599  
Epoch 29518/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9599  
Epoch 29519/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9601  
Epoch 29520/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9606  
Epoch 29521/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9586  
Epoch 29522/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9586  
Epoch 29523/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9599  
Epoch 29524/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9596  
Epoch 29525/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9595  
Epoch 29526/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9599  
Epoch 29527/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9594  
Epoch 29528/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0314 - accuracy:  
0.9601  
Epoch 29529/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy:  
0.9603  
Epoch 29530/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0347 - accuracy:  
0.9598  
Epoch 29531/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0333 - accuracy:  
0.9594  
Epoch 29532/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9596  
Epoch 29533/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9589  
Epoch 29534/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0318 - accuracy:  
0.9593  
Epoch 29535/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9606  
Epoch 29536/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0324 - accuracy: 0.9594  
Epoch 29537/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy: 0.9607  
Epoch 29538/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0336 - accuracy: 0.9608  
Epoch 29539/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy: 0.9601  
Epoch 29540/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0315 - accuracy: 0.9601  
Epoch 29541/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0312 - accuracy: 0.9609  
Epoch 29542/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0309 - accuracy: 0.9601  
Epoch 29543/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9599  
Epoch 29544/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy: 0.9591  
Epoch 29545/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9591  
Epoch 29546/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9602  
Epoch 29547/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy: 0.9597  
Epoch 29548/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9591  
Epoch 29549/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy: 0.9587  
Epoch 29550/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy: 0.9602  
Epoch 29551/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy: 0.9591  
Epoch 29552/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9594  
Epoch 29553/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9609  
Epoch 29554/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9596  
Epoch 29555/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9586  
Epoch 29556/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9601  
Epoch 29557/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0301 - accuracy:  
0.9601  
Epoch 29558/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9596  
Epoch 29559/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9599  
Epoch 29560/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9597  
Epoch 29561/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9601  
Epoch 29562/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9602  
Epoch 29563/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0301 - accuracy:  
0.9605  
Epoch 29564/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9594  
Epoch 29565/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9602  
Epoch 29566/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9595  
Epoch 29567/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9584  
Epoch 29568/100000

2/2 [=====] - 0s 122ms/step - loss: 0.0300 - accuracy:  
0.9600  
Epoch 29569/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9592  
Epoch 29570/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9603  
Epoch 29571/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9590  
Epoch 29572/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9600  
Epoch 29573/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9592  
Epoch 29574/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0303 - accuracy:  
0.9602  
Epoch 29575/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0311 - accuracy:  
0.9599  
Epoch 29576/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9589  
Epoch 29577/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9594  
Epoch 29578/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy:  
0.9598  
Epoch 29579/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9591  
Epoch 29580/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9586  
Epoch 29581/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9602  
Epoch 29582/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy:  
0.9595  
Epoch 29583/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0302 - accuracy:  
0.9602  
Epoch 29584/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9597  
Epoch 29585/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9594  
Epoch 29586/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0297 - accuracy:  
0.9589  
Epoch 29587/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9594  
Epoch 29588/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0295 - accuracy:  
0.9598  
Epoch 29589/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9601  
Epoch 29590/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9592  
Epoch 29591/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9595  
Epoch 29592/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9598  
Epoch 29593/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0305 - accuracy:  
0.9593  
Epoch 29594/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0304 - accuracy:  
0.9602  
Epoch 29595/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0303 - accuracy:  
0.9594  
Epoch 29596/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9600  
Epoch 29597/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9598  
Epoch 29598/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9592  
Epoch 29599/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9601  
Epoch 29600/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9597  
Epoch 29601/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9594  
Epoch 29602/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9596  
Epoch 29603/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy:  
0.9586  
Epoch 29604/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9601  
Epoch 29605/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0306 - accuracy:  
0.9585  
Epoch 29606/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9600  
Epoch 29607/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0300 - accuracy:  
0.9599  
Epoch 29608/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9593  
Epoch 29609/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9593  
Epoch 29610/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9596  
Epoch 29611/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9592  
Epoch 29612/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9594  
Epoch 29613/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9601  
Epoch 29614/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9589  
Epoch 29615/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9594  
Epoch 29616/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9592  
Epoch 29617/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9594  
Epoch 29618/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9593  
Epoch 29619/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9592  
Epoch 29620/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy:  
0.9597  
Epoch 29621/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9587  
Epoch 29622/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0309 - accuracy:  
0.9594  
Epoch 29623/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9598  
Epoch 29624/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9599  
Epoch 29625/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9605  
Epoch 29626/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9596  
Epoch 29627/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9591  
Epoch 29628/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9595  
Epoch 29629/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9597  
Epoch 29630/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9589  
Epoch 29631/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9592  
Epoch 29632/100000



2/2 [=====] - 0s 118ms/step - loss: 0.0297 - accuracy:  
0.9598  
Epoch 29633/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0296 - accuracy:  
0.9595  
Epoch 29634/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9590  
Epoch 29635/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9598  
Epoch 29636/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0296 - accuracy:  
0.9591  
Epoch 29637/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9596  
Epoch 29638/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9596  
Epoch 29639/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9593  
Epoch 29640/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0295 - accuracy:  
0.9599  
Epoch 29641/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9594  
Epoch 29642/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9596  
Epoch 29643/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9597  
Epoch 29644/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy:  
0.9600  
Epoch 29645/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9593  
Epoch 29646/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9593  
Epoch 29647/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9598  
Epoch 29648/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9593  
Epoch 29649/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy: 0.9597  
Epoch 29650/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9588  
Epoch 29651/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9607  
Epoch 29652/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy: 0.9589  
Epoch 29653/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9591  
Epoch 29654/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy: 0.9590  
Epoch 29655/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9595  
Epoch 29656/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy: 0.9598  
Epoch 29657/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9597  
Epoch 29658/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9596  
Epoch 29659/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9591  
Epoch 29660/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy: 0.9594  
Epoch 29661/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9596  
Epoch 29662/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9602  
Epoch 29663/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy: 0.9602  
Epoch 29664/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9591  
Epoch 29665/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9592  
Epoch 29666/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9591  
Epoch 29667/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9595  
Epoch 29668/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9599  
Epoch 29669/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9596  
Epoch 29670/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9593  
Epoch 29671/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9589  
Epoch 29672/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9591  
Epoch 29673/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9600  
Epoch 29674/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9599  
Epoch 29675/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9590  
Epoch 29676/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9593  
Epoch 29677/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9599  
Epoch 29678/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9595  
Epoch 29679/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9593  
Epoch 29680/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9596  
Epoch 29681/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9593  
Epoch 29682/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9589  
Epoch 29683/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9597  
Epoch 29684/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9597  
Epoch 29685/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9596  
Epoch 29686/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0314 - accuracy:  
0.9606  
Epoch 29687/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy:  
0.9597  
Epoch 29688/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0303 - accuracy:  
0.9595  
Epoch 29689/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9590  
Epoch 29690/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9589  
Epoch 29691/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9598  
Epoch 29692/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9602  
Epoch 29693/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9586  
Epoch 29694/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9598  
Epoch 29695/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9594  
Epoch 29696/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0309 - accuracy:  
0.9600  
Epoch 29697/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9611  
Epoch 29698/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9603  
Epoch 29699/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9601  
Epoch 29700/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9597  
Epoch 29701/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9595  
Epoch 29702/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9591  
Epoch 29703/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9593  
Epoch 29704/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9604  
Epoch 29705/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9598  
Epoch 29706/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9601  
Epoch 29707/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9593  
Epoch 29708/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9594  
Epoch 29709/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0303 - accuracy:  
0.9598  
Epoch 29710/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9602  
Epoch 29711/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9587  
Epoch 29712/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy: 0.9599  
Epoch 29713/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9603  
Epoch 29714/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy: 0.9603  
Epoch 29715/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9602  
Epoch 29716/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9602  
Epoch 29717/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9597  
Epoch 29718/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9585  
Epoch 29719/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0301 - accuracy: 0.9595  
Epoch 29720/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9595  
Epoch 29721/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9591  
Epoch 29722/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9591  
Epoch 29723/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0308 - accuracy: 0.9596  
Epoch 29724/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy: 0.9599  
Epoch 29725/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0326 - accuracy: 0.9596  
Epoch 29726/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9601  
Epoch 29727/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy: 0.9597  
Epoch 29728/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy:  
0.9598  
Epoch 29729/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9592  
Epoch 29730/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0326 - accuracy:  
0.9597  
Epoch 29731/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9608  
Epoch 29732/100000  
2/2 [=====] - 0s 126ms/step - loss: 0.0307 - accuracy:  
0.9602  
Epoch 29733/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9596  
Epoch 29734/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9599  
Epoch 29735/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0321 - accuracy:  
0.9603  
Epoch 29736/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0321 - accuracy:  
0.9596  
Epoch 29737/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9587  
Epoch 29738/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9598  
Epoch 29739/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9596  
Epoch 29740/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0320 - accuracy:  
0.9598  
Epoch 29741/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9602  
Epoch 29742/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0320 - accuracy:  
0.9589  
Epoch 29743/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy:  
0.9599  
Epoch 29744/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9595  
Epoch 29745/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9596  
Epoch 29746/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9599  
Epoch 29747/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9593  
Epoch 29748/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9605  
Epoch 29749/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9594  
Epoch 29750/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0312 - accuracy:  
0.9597  
Epoch 29751/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9593  
Epoch 29752/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0301 - accuracy:  
0.9593  
Epoch 29753/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9592  
Epoch 29754/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0299 - accuracy:  
0.9596  
Epoch 29755/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9605  
Epoch 29756/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9600  
Epoch 29757/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0305 - accuracy:  
0.9596  
Epoch 29758/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9599  
Epoch 29759/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy:  
0.9594  
Epoch 29760/100000



2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9599  
Epoch 29761/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0311 - accuracy:  
0.9600  
Epoch 29762/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9597  
Epoch 29763/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9607  
Epoch 29764/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9595  
Epoch 29765/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0325 - accuracy:  
0.9595  
Epoch 29766/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9590  
Epoch 29767/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9584  
Epoch 29768/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9596  
Epoch 29769/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9601  
Epoch 29770/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9591  
Epoch 29771/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9600  
Epoch 29772/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9591  
Epoch 29773/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9605  
Epoch 29774/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9603  
Epoch 29775/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9586  
Epoch 29776/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9590  
Epoch 29777/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9586  
Epoch 29778/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9597  
Epoch 29779/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9589  
Epoch 29780/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9589  
Epoch 29781/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9595  
Epoch 29782/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9590  
Epoch 29783/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9586  
Epoch 29784/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9594  
Epoch 29785/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9603  
Epoch 29786/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9596  
Epoch 29787/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0300 - accuracy:  
0.9590  
Epoch 29788/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9600  
Epoch 29789/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9600  
Epoch 29790/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9590  
Epoch 29791/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9601  
Epoch 29792/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy: 0.9591  
Epoch 29793/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy: 0.9593  
Epoch 29794/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy: 0.9587  
Epoch 29795/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9606  
Epoch 29796/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9588  
Epoch 29797/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0301 - accuracy: 0.9608  
Epoch 29798/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0302 - accuracy: 0.9601  
Epoch 29799/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0303 - accuracy: 0.9593  
Epoch 29800/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0308 - accuracy: 0.9607  
Epoch 29801/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0304 - accuracy: 0.9594  
Epoch 29802/100000  
2/2 [=====] - 0s 133ms/step - loss: 0.0305 - accuracy: 0.9602  
Epoch 29803/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0302 - accuracy: 0.9598  
Epoch 29804/100000  
2/2 [=====] - 0s 132ms/step - loss: 0.0301 - accuracy: 0.9595  
Epoch 29805/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0300 - accuracy: 0.9605  
Epoch 29806/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0300 - accuracy: 0.9587  
Epoch 29807/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy: 0.9601  
Epoch 29808/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9602  
Epoch 29809/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9589  
Epoch 29810/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9588  
Epoch 29811/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9593  
Epoch 29812/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0307 - accuracy:  
0.9609  
Epoch 29813/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0311 - accuracy:  
0.9599  
Epoch 29814/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9594  
Epoch 29815/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9597  
Epoch 29816/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0301 - accuracy:  
0.9595  
Epoch 29817/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9593  
Epoch 29818/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0298 - accuracy:  
0.9593  
Epoch 29819/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0296 - accuracy:  
0.9592  
Epoch 29820/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9602  
Epoch 29821/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9599  
Epoch 29822/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0302 - accuracy:  
0.9598  
Epoch 29823/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9599  
Epoch 29824/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9598  
Epoch 29825/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9595  
Epoch 29826/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9593  
Epoch 29827/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9605  
Epoch 29828/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9600  
Epoch 29829/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy:  
0.9593  
Epoch 29830/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9589  
Epoch 29831/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9602  
Epoch 29832/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9610  
Epoch 29833/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9603  
Epoch 29834/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9597  
Epoch 29835/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9594  
Epoch 29836/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9599  
Epoch 29837/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9604  
Epoch 29838/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9605  
Epoch 29839/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9592  
Epoch 29840/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9602  
Epoch 29841/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9604  
Epoch 29842/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9595  
Epoch 29843/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9593  
Epoch 29844/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9595  
Epoch 29845/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy:  
0.9594  
Epoch 29846/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9600  
Epoch 29847/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0317 - accuracy:  
0.9592  
Epoch 29848/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9603  
Epoch 29849/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0317 - accuracy:  
0.9597  
Epoch 29850/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9600  
Epoch 29851/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0310 - accuracy:  
0.9601  
Epoch 29852/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9598  
Epoch 29853/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0316 - accuracy:  
0.9594  
Epoch 29854/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9599  
Epoch 29855/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9594  
Epoch 29856/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9596  
Epoch 29857/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9585  
Epoch 29858/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9593  
Epoch 29859/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9594  
Epoch 29860/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9598  
Epoch 29861/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9595  
Epoch 29862/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9599  
Epoch 29863/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9597  
Epoch 29864/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0296 - accuracy:  
0.9585  
Epoch 29865/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9595  
Epoch 29866/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9593  
Epoch 29867/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy:  
0.9596  
Epoch 29868/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0299 - accuracy:  
0.9601  
Epoch 29869/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0312 - accuracy:  
0.9591  
Epoch 29870/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0315 - accuracy:  
0.9595  
Epoch 29871/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9600  
Epoch 29872/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9595  
Epoch 29873/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9599  
Epoch 29874/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0310 - accuracy:  
0.9601  
Epoch 29875/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9594  
Epoch 29876/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0312 - accuracy:  
0.9597  
Epoch 29877/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9595  
Epoch 29878/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9600  
Epoch 29879/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9605  
Epoch 29880/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9593  
Epoch 29881/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9595  
Epoch 29882/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9587  
Epoch 29883/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0308 - accuracy:  
0.9600  
Epoch 29884/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9590  
Epoch 29885/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0302 - accuracy:  
0.9597  
Epoch 29886/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9590  
Epoch 29887/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9590  
Epoch 29888/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9603  
Epoch 29889/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9590  
Epoch 29890/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0313 - accuracy:  
0.9603  
Epoch 29891/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy:  
0.9598  
Epoch 29892/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9599  
Epoch 29893/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0306 - accuracy:  
0.9598  
Epoch 29894/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9589  
Epoch 29895/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy:  
0.9596  
Epoch 29896/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0318 - accuracy:  
0.9602  
Epoch 29897/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9593  
Epoch 29898/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy:  
0.9591  
Epoch 29899/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9584  
Epoch 29900/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9593  
Epoch 29901/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9598  
Epoch 29902/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9606  
Epoch 29903/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9601  
Epoch 29904/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0315 - accuracy:  
0.9600  
Epoch 29905/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9588  
Epoch 29906/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9606  
Epoch 29907/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9600  
Epoch 29908/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0304 - accuracy:  
0.9590  
Epoch 29909/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9589  
Epoch 29910/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0313 - accuracy:  
0.9603  
Epoch 29911/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9595  
Epoch 29912/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9597  
Epoch 29913/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9592  
Epoch 29914/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9603  
Epoch 29915/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0307 - accuracy:  
0.9594  
Epoch 29916/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9609  
Epoch 29917/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9603  
Epoch 29918/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9595  
Epoch 29919/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9602  
Epoch 29920/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9592  
Epoch 29921/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9597  
Epoch 29922/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy: 0.9596  
Epoch 29923/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9602  
Epoch 29924/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy: 0.9589  
Epoch 29925/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy: 0.9604  
Epoch 29926/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9596  
Epoch 29927/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9596  
Epoch 29928/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9592  
Epoch 29929/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9595  
Epoch 29930/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy: 0.9595  
Epoch 29931/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9612  
Epoch 29932/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0296 - accuracy: 0.9599  
Epoch 29933/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy: 0.9603  
Epoch 29934/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy: 0.9599  
Epoch 29935/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy: 0.9589  
Epoch 29936/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0301 - accuracy:  
0.9601  
Epoch 29937/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9600  
Epoch 29938/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9591  
Epoch 29939/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9602  
Epoch 29940/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0298 - accuracy:  
0.9594  
Epoch 29941/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9595  
Epoch 29942/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9599  
Epoch 29943/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9598  
Epoch 29944/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0301 - accuracy:  
0.9592  
Epoch 29945/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9587  
Epoch 29946/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9603  
Epoch 29947/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9597  
Epoch 29948/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9585  
Epoch 29949/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9607  
Epoch 29950/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9599  
Epoch 29951/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9589  
Epoch 29952/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy: 0.9598  
Epoch 29953/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy: 0.9593  
Epoch 29954/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy: 0.9603  
Epoch 29955/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy: 0.9606  
Epoch 29956/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9592  
Epoch 29957/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy: 0.9603  
Epoch 29958/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9595  
Epoch 29959/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9596  
Epoch 29960/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy: 0.9603  
Epoch 29961/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0306 - accuracy: 0.9610  
Epoch 29962/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9606  
Epoch 29963/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy: 0.9595  
Epoch 29964/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy: 0.9603  
Epoch 29965/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy: 0.9597  
Epoch 29966/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9597  
Epoch 29967/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy: 0.9598  
Epoch 29968/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9597  
Epoch 29969/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9606  
Epoch 29970/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9590  
Epoch 29971/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy:  
0.9600  
Epoch 29972/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy:  
0.9589  
Epoch 29973/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9586  
Epoch 29974/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9600  
Epoch 29975/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9594  
Epoch 29976/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9592  
Epoch 29977/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy:  
0.9603  
Epoch 29978/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9598  
Epoch 29979/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0303 - accuracy:  
0.9597  
Epoch 29980/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9590  
Epoch 29981/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9596  
Epoch 29982/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9590  
Epoch 29983/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0309 - accuracy:  
0.9592  
Epoch 29984/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9608  
Epoch 29985/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy:  
0.9590  
Epoch 29986/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0328 - accuracy:  
0.9600  
Epoch 29987/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9595  
Epoch 29988/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0307 - accuracy:  
0.9596  
Epoch 29989/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9593  
Epoch 29990/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0312 - accuracy:  
0.9597  
Epoch 29991/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9599  
Epoch 29992/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9597  
Epoch 29993/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9591  
Epoch 29994/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9604  
Epoch 29995/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9605  
Epoch 29996/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9586  
Epoch 29997/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9600  
Epoch 29998/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0308 - accuracy:  
0.9591  
Epoch 29999/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0310 - accuracy:  
0.9603  
Epoch 30000/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9590  
Epoch 30001/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9593  
Epoch 30002/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9597  
Epoch 30003/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9589  
Epoch 30004/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0306 - accuracy:  
0.9593  
Epoch 30005/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9594  
Epoch 30006/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9600  
Epoch 30007/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9601  
Epoch 30008/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9601  
Epoch 30009/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9595  
Epoch 30010/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9597  
Epoch 30011/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9596  
Epoch 30012/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9592  
Epoch 30013/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9595  
Epoch 30014/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9600  
Epoch 30015/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9592  
Epoch 30016/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9599  
Epoch 30017/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9599  
Epoch 30018/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9606  
Epoch 30019/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy:  
0.9592  
Epoch 30020/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9597  
Epoch 30021/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy:  
0.9591  
Epoch 30022/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9590  
Epoch 30023/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9600  
Epoch 30024/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9595  
Epoch 30025/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0302 - accuracy:  
0.9597  
Epoch 30026/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9600  
Epoch 30027/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9594  
Epoch 30028/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9598  
Epoch 30029/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9603  
Epoch 30030/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9598  
Epoch 30031/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9603  
Epoch 30032/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9599  
Epoch 30033/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9603  
Epoch 30034/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9601  
Epoch 30035/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0301 - accuracy:  
0.9591  
Epoch 30036/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0301 - accuracy:  
0.9593  
Epoch 30037/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9595  
Epoch 30038/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0300 - accuracy:  
0.9597  
Epoch 30039/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9599  
Epoch 30040/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9592  
Epoch 30041/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9598  
Epoch 30042/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0301 - accuracy:  
0.9590  
Epoch 30043/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0298 - accuracy:  
0.9599  
Epoch 30044/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9596  
Epoch 30045/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9585  
Epoch 30046/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9591  
Epoch 30047/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9593  
Epoch 30048/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9587  
Epoch 30049/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy: 0.9599  
Epoch 30050/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy: 0.9592  
Epoch 30051/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9603  
Epoch 30052/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9602  
Epoch 30053/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy: 0.9597  
Epoch 30054/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy: 0.9594  
Epoch 30055/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9584  
Epoch 30056/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy: 0.9591  
Epoch 30057/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy: 0.9592  
Epoch 30058/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy: 0.9591  
Epoch 30059/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9596  
Epoch 30060/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9599  
Epoch 30061/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy: 0.9596  
Epoch 30062/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy: 0.9593  
Epoch 30063/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9602  
Epoch 30064/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9602  
Epoch 30065/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy:  
0.9588  
Epoch 30066/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9597  
Epoch 30067/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9595  
Epoch 30068/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9594  
Epoch 30069/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0305 - accuracy:  
0.9591  
Epoch 30070/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9590  
Epoch 30071/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9602  
Epoch 30072/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0307 - accuracy:  
0.9592  
Epoch 30073/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9607  
Epoch 30074/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9597  
Epoch 30075/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9595  
Epoch 30076/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9589  
Epoch 30077/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9599  
Epoch 30078/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9595  
Epoch 30079/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9600  
Epoch 30080/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9593  
Epoch 30081/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy:  
0.9595  
Epoch 30082/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9596  
Epoch 30083/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0300 - accuracy:  
0.9606  
Epoch 30084/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0303 - accuracy:  
0.9598  
Epoch 30085/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9593  
Epoch 30086/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9595  
Epoch 30087/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0298 - accuracy:  
0.9596  
Epoch 30088/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy:  
0.9598  
Epoch 30089/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9592  
Epoch 30090/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9594  
Epoch 30091/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9599  
Epoch 30092/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0302 - accuracy:  
0.9597  
Epoch 30093/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9596  
Epoch 30094/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9598  
Epoch 30095/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9599  
Epoch 30096/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9603  
Epoch 30097/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9590  
Epoch 30098/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9598  
Epoch 30099/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9586  
Epoch 30100/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9586  
Epoch 30101/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy:  
0.9599  
Epoch 30102/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0310 - accuracy:  
0.9594  
Epoch 30103/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0300 - accuracy:  
0.9594  
Epoch 30104/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9595  
Epoch 30105/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9586  
Epoch 30106/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9596  
Epoch 30107/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9605  
Epoch 30108/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0301 - accuracy:  
0.9584  
Epoch 30109/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9600  
Epoch 30110/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0299 - accuracy:  
0.9589  
Epoch 30111/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9601  
Epoch 30112/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9594  
Epoch 30113/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9601  
Epoch 30114/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9589  
Epoch 30115/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0303 - accuracy:  
0.9597  
Epoch 30116/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy:  
0.9592  
Epoch 30117/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9593  
Epoch 30118/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9589  
Epoch 30119/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9598  
Epoch 30120/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy:  
0.9596  
Epoch 30121/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9594  
Epoch 30122/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0298 - accuracy:  
0.9598  
Epoch 30123/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9597  
Epoch 30124/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9588  
Epoch 30125/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy:  
0.9596  
Epoch 30126/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0295 - accuracy:  
0.9592  
Epoch 30127/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0296 - accuracy:  
0.9584  
Epoch 30128/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9602  
Epoch 30129/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9591  
Epoch 30130/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9598  
Epoch 30131/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9604  
Epoch 30132/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9608  
Epoch 30133/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9597  
Epoch 30134/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9603  
Epoch 30135/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9602  
Epoch 30136/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9600  
Epoch 30137/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0296 - accuracy:  
0.9590  
Epoch 30138/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9598  
Epoch 30139/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9598  
Epoch 30140/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9604  
Epoch 30141/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9594  
Epoch 30142/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9597  
Epoch 30143/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0304 - accuracy:  
0.9587  
Epoch 30144/100000



2/2 [=====] - 0s 116ms/step - loss: 0.0293 - accuracy:  
0.9590  
Epoch 30145/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9593  
Epoch 30146/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9599  
Epoch 30147/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9589  
Epoch 30148/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy:  
0.9601  
Epoch 30149/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy:  
0.9596  
Epoch 30150/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy:  
0.9599  
Epoch 30151/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
0.9595  
Epoch 30152/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0299 - accuracy:  
0.9602  
Epoch 30153/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9593  
Epoch 30154/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0293 - accuracy:  
0.9601  
Epoch 30155/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0300 - accuracy:  
0.9594  
Epoch 30156/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9594  
Epoch 30157/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9594  
Epoch 30158/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9590  
Epoch 30159/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9596  
Epoch 30160/100000

2/2 [=====] - 0s 120ms/step - loss: 0.0304 - accuracy:  
0.9607  
Epoch 30161/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9599  
Epoch 30162/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9594  
Epoch 30163/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9590  
Epoch 30164/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0297 - accuracy:  
0.9602  
Epoch 30165/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9593  
Epoch 30166/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy:  
0.9596  
Epoch 30167/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9591  
Epoch 30168/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9597  
Epoch 30169/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0305 - accuracy:  
0.9589  
Epoch 30170/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9595  
Epoch 30171/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9591  
Epoch 30172/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9592  
Epoch 30173/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9598  
Epoch 30174/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0300 - accuracy:  
0.9598  
Epoch 30175/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9596  
Epoch 30176/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9597  
Epoch 30177/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9600  
Epoch 30178/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0309 - accuracy:  
0.9606  
Epoch 30179/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9602  
Epoch 30180/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9599  
Epoch 30181/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9599  
Epoch 30182/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9599  
Epoch 30183/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9611  
Epoch 30184/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9598  
Epoch 30185/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9600  
Epoch 30186/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9596  
Epoch 30187/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0298 - accuracy:  
0.9596  
Epoch 30188/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9606  
Epoch 30189/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9584  
Epoch 30190/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9590  
Epoch 30191/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9601  
Epoch 30192/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0328 - accuracy: 0.9600  
Epoch 30193/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0345 - accuracy: 0.9592  
Epoch 30194/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0330 - accuracy: 0.9599  
Epoch 30195/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy: 0.9606  
Epoch 30196/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9597  
Epoch 30197/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9597  
Epoch 30198/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0315 - accuracy: 0.9595  
Epoch 30199/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0308 - accuracy: 0.9594  
Epoch 30200/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9609  
Epoch 30201/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy: 0.9607  
Epoch 30202/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy: 0.9595  
Epoch 30203/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy: 0.9594  
Epoch 30204/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy: 0.9605  
Epoch 30205/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy: 0.9597  
Epoch 30206/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9601  
Epoch 30207/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9595  
Epoch 30208/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0302 - accuracy: 0.9598  
Epoch 30209/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy: 0.9597  
Epoch 30210/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy: 0.9596  
Epoch 30211/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9601  
Epoch 30212/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy: 0.9585  
Epoch 30213/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy: 0.9604  
Epoch 30214/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9602  
Epoch 30215/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy: 0.9601  
Epoch 30216/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy: 0.9597  
Epoch 30217/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0305 - accuracy: 0.9600  
Epoch 30218/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy: 0.9603  
Epoch 30219/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0296 - accuracy: 0.9595  
Epoch 30220/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy: 0.9594  
Epoch 30221/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9586  
Epoch 30222/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0301 - accuracy: 0.9605  
Epoch 30223/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9600  
Epoch 30224/100000

2/2 [=====] - 0s 113ms/step - loss: 0.0299 - accuracy:  
0.9600  
Epoch 30225/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9592  
Epoch 30226/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9598  
Epoch 30227/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9608  
Epoch 30228/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9601  
Epoch 30229/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9591  
Epoch 30230/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9600  
Epoch 30231/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9591  
Epoch 30232/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9602  
Epoch 30233/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9605  
Epoch 30234/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy:  
0.9600  
Epoch 30235/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9590  
Epoch 30236/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9585  
Epoch 30237/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9593  
Epoch 30238/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9609  
Epoch 30239/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9589  
Epoch 30240/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9598  
Epoch 30241/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9583  
Epoch 30242/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9592  
Epoch 30243/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9590  
Epoch 30244/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0316 - accuracy:  
0.9590  
Epoch 30245/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9588  
Epoch 30246/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9589  
Epoch 30247/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0307 - accuracy:  
0.9595  
Epoch 30248/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0304 - accuracy:  
0.9594  
Epoch 30249/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9592  
Epoch 30250/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9603  
Epoch 30251/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9597  
Epoch 30252/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9594  
Epoch 30253/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9597  
Epoch 30254/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9592  
Epoch 30255/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9593  
Epoch 30256/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9601  
Epoch 30257/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9597  
Epoch 30258/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9606  
Epoch 30259/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9597  
Epoch 30260/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9587  
Epoch 30261/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9610  
Epoch 30262/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9594  
Epoch 30263/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9594  
Epoch 30264/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9591  
Epoch 30265/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9592  
Epoch 30266/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9602  
Epoch 30267/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9596  
Epoch 30268/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0300 - accuracy:  
0.9598  
Epoch 30269/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9588  
Epoch 30270/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9593  
Epoch 30271/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9590  
Epoch 30272/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9595  
Epoch 30273/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9594  
Epoch 30274/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9601  
Epoch 30275/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9591  
Epoch 30276/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9590  
Epoch 30277/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9598  
Epoch 30278/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9592  
Epoch 30279/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9594  
Epoch 30280/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9600  
Epoch 30281/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9601  
Epoch 30282/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9602  
Epoch 30283/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9585  
Epoch 30284/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9597  
Epoch 30285/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9587  
Epoch 30286/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9595  
Epoch 30287/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9595  
Epoch 30288/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9597  
Epoch 30289/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9588  
Epoch 30290/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy:  
0.9587  
Epoch 30291/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9599  
Epoch 30292/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0311 - accuracy:  
0.9596  
Epoch 30293/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9591  
Epoch 30294/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0316 - accuracy:  
0.9598  
Epoch 30295/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9599  
Epoch 30296/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9595  
Epoch 30297/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9597  
Epoch 30298/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9581  
Epoch 30299/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9609  
Epoch 30300/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9595  
Epoch 30301/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9587  
Epoch 30302/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0314 - accuracy:  
0.9601  
Epoch 30303/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0316 - accuracy:  
0.9600  
Epoch 30304/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0315 - accuracy:  
0.9603  
Epoch 30305/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9597  
Epoch 30306/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0321 - accuracy:  
0.9593  
Epoch 30307/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0308 - accuracy:  
0.9595  
Epoch 30308/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9598  
Epoch 30309/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9595  
Epoch 30310/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0310 - accuracy:  
0.9594  
Epoch 30311/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy:  
0.9596  
Epoch 30312/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0309 - accuracy:  
0.9594  
Epoch 30313/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0302 - accuracy:  
0.9593  
Epoch 30314/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9604  
Epoch 30315/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9600  
Epoch 30316/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9585  
Epoch 30317/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9595  
Epoch 30318/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9601  
Epoch 30319/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9603  
Epoch 30320/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9596  
Epoch 30321/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy:  
0.9605  
Epoch 30322/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0303 - accuracy:  
0.9598  
Epoch 30323/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0305 - accuracy:  
0.9598  
Epoch 30324/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9588  
Epoch 30325/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9604  
Epoch 30326/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9598  
Epoch 30327/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9608  
Epoch 30328/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0302 - accuracy:  
0.9600  
Epoch 30329/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9597  
Epoch 30330/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0298 - accuracy:  
0.9600  
Epoch 30331/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9604  
Epoch 30332/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9590  
Epoch 30333/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9593  
Epoch 30334/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9594  
Epoch 30335/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0298 - accuracy:  
0.9606  
Epoch 30336/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy: 0.9597  
Epoch 30337/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy: 0.9607  
Epoch 30338/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9595  
Epoch 30339/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0304 - accuracy: 0.9596  
Epoch 30340/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9590  
Epoch 30341/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy: 0.9591  
Epoch 30342/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy: 0.9598  
Epoch 30343/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy: 0.9593  
Epoch 30344/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy: 0.9592  
Epoch 30345/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy: 0.9599  
Epoch 30346/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy: 0.9591  
Epoch 30347/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9595  
Epoch 30348/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9604  
Epoch 30349/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9589  
Epoch 30350/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0311 - accuracy: 0.9597  
Epoch 30351/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy: 0.9592  
Epoch 30352/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy: 0.9592  
Epoch 30353/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9596  
Epoch 30354/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9598  
Epoch 30355/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy: 0.9606  
Epoch 30356/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy: 0.9591  
Epoch 30357/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy: 0.9602  
Epoch 30358/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy: 0.9590  
Epoch 30359/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy: 0.9591  
Epoch 30360/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9600  
Epoch 30361/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9591  
Epoch 30362/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy: 0.9601  
Epoch 30363/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy: 0.9594  
Epoch 30364/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy: 0.9598  
Epoch 30365/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy: 0.9597  
Epoch 30366/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy: 0.9590  
Epoch 30367/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0310 - accuracy: 0.9583  
Epoch 30368/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9603  
Epoch 30369/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0325 - accuracy:  
0.9591  
Epoch 30370/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0331 - accuracy:  
0.9595  
Epoch 30371/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy:  
0.9595  
Epoch 30372/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0310 - accuracy:  
0.9595  
Epoch 30373/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9593  
Epoch 30374/100000  
2/2 [=====] - 0s 128ms/step - loss: 0.0308 - accuracy:  
0.9594  
Epoch 30375/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0305 - accuracy:  
0.9600  
Epoch 30376/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0317 - accuracy:  
0.9602  
Epoch 30377/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0313 - accuracy:  
0.9601  
Epoch 30378/100000  
2/2 [=====] - 0s 127ms/step - loss: 0.0314 - accuracy:  
0.9597  
Epoch 30379/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0307 - accuracy:  
0.9594  
Epoch 30380/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9597  
Epoch 30381/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9593  
Epoch 30382/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0304 - accuracy:  
0.9593  
Epoch 30383/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9588  
Epoch 30384/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9601  
Epoch 30385/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9581  
Epoch 30386/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9601  
Epoch 30387/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9605  
Epoch 30388/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9590  
Epoch 30389/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0306 - accuracy:  
0.9602  
Epoch 30390/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9593  
Epoch 30391/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9600  
Epoch 30392/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0298 - accuracy:  
0.9596  
Epoch 30393/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9600  
Epoch 30394/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9596  
Epoch 30395/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0299 - accuracy:  
0.9593  
Epoch 30396/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0298 - accuracy:  
0.9599  
Epoch 30397/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0296 - accuracy:  
0.9593  
Epoch 30398/100000  
2/2 [=====] - 0s 144ms/step - loss: 0.0298 - accuracy:  
0.9592  
Epoch 30399/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0297 - accuracy:  
0.9592  
Epoch 30400/100000



2/2 [=====] - 0s 130ms/step - loss: 0.0304 - accuracy:  
0.9592  
Epoch 30401/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0300 - accuracy:  
0.9591  
Epoch 30402/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0298 - accuracy:  
0.9600  
Epoch 30403/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0300 - accuracy:  
0.9599  
Epoch 30404/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9594  
Epoch 30405/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9588  
Epoch 30406/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9601  
Epoch 30407/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9600  
Epoch 30408/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9597  
Epoch 30409/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9606  
Epoch 30410/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9590  
Epoch 30411/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9603  
Epoch 30412/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9598  
Epoch 30413/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0302 - accuracy:  
0.9594  
Epoch 30414/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9599  
Epoch 30415/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9594  
Epoch 30416/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9592  
Epoch 30417/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0293 - accuracy:  
0.9586  
Epoch 30418/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9600  
Epoch 30419/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0298 - accuracy:  
0.9590  
Epoch 30420/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0300 - accuracy:  
0.9592  
Epoch 30421/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9593  
Epoch 30422/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9598  
Epoch 30423/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9591  
Epoch 30424/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9598  
Epoch 30425/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9584  
Epoch 30426/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
0.9606  
Epoch 30427/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9598  
Epoch 30428/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9591  
Epoch 30429/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9594  
Epoch 30430/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9593  
Epoch 30431/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9594  
Epoch 30432/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9584  
Epoch 30433/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9592  
Epoch 30434/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9596  
Epoch 30435/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9595  
Epoch 30436/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9595  
Epoch 30437/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9600  
Epoch 30438/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9584  
Epoch 30439/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9595  
Epoch 30440/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0324 - accuracy:  
0.9598  
Epoch 30441/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9596  
Epoch 30442/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0310 - accuracy:  
0.9593  
Epoch 30443/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9596  
Epoch 30444/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9596  
Epoch 30445/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy:  
0.9612  
Epoch 30446/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9590  
Epoch 30447/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0305 - accuracy:  
0.9605  
Epoch 30448/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9601  
Epoch 30449/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9586  
Epoch 30450/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9591  
Epoch 30451/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9590  
Epoch 30452/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9599  
Epoch 30453/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9589  
Epoch 30454/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9594  
Epoch 30455/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9596  
Epoch 30456/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9596  
Epoch 30457/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9596  
Epoch 30458/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9602  
Epoch 30459/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9596  
Epoch 30460/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9603  
Epoch 30461/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9602  
Epoch 30462/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9597  
Epoch 30463/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9589  
Epoch 30464/100000

2/2 [=====] - 0s 119ms/step - loss: 0.0302 - accuracy:  
0.9600  
Epoch 30465/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9589  
Epoch 30466/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9593  
Epoch 30467/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy:  
0.9615  
Epoch 30468/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9591  
Epoch 30469/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9585  
Epoch 30470/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9597  
Epoch 30471/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9596  
Epoch 30472/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0305 - accuracy:  
0.9600  
Epoch 30473/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0302 - accuracy:  
0.9598  
Epoch 30474/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9602  
Epoch 30475/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9599  
Epoch 30476/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9592  
Epoch 30477/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9598  
Epoch 30478/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9600  
Epoch 30479/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9595  
Epoch 30480/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9602  
Epoch 30481/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9589  
Epoch 30482/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9594  
Epoch 30483/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9597  
Epoch 30484/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9596  
Epoch 30485/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9601  
Epoch 30486/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9598  
Epoch 30487/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9600  
Epoch 30488/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9594  
Epoch 30489/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9593  
Epoch 30490/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9596  
Epoch 30491/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9595  
Epoch 30492/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9602  
Epoch 30493/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9592  
Epoch 30494/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9586  
Epoch 30495/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9600  
Epoch 30496/100000

2/2 [=====] - 0s 119ms/step - loss: 0.0298 - accuracy: 0.9600  
Epoch 30497/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy: 0.9598  
Epoch 30498/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy: 0.9594  
Epoch 30499/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy: 0.9594  
Epoch 30500/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9595  
Epoch 30501/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9598  
Epoch 30502/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9589  
Epoch 30503/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy: 0.9595  
Epoch 30504/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9588  
Epoch 30505/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy: 0.9599  
Epoch 30506/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9596  
Epoch 30507/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0306 - accuracy: 0.9602  
Epoch 30508/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9601  
Epoch 30509/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9589  
Epoch 30510/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0297 - accuracy: 0.9586  
Epoch 30511/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy: 0.9594  
Epoch 30512/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9593  
Epoch 30513/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9597  
Epoch 30514/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy:  
0.9604  
Epoch 30515/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0308 - accuracy:  
0.9594  
Epoch 30516/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9599  
Epoch 30517/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0308 - accuracy:  
0.9608  
Epoch 30518/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9589  
Epoch 30519/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0315 - accuracy:  
0.9590  
Epoch 30520/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9590  
Epoch 30521/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9595  
Epoch 30522/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9598  
Epoch 30523/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9605  
Epoch 30524/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9602  
Epoch 30525/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9603  
Epoch 30526/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9597  
Epoch 30527/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0304 - accuracy:  
0.9601  
Epoch 30528/100000



2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9600  
Epoch 30529/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9601  
Epoch 30530/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9587  
Epoch 30531/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0309 - accuracy:  
0.9590  
Epoch 30532/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9608  
Epoch 30533/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9594  
Epoch 30534/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0317 - accuracy:  
0.9596  
Epoch 30535/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9601  
Epoch 30536/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0304 - accuracy:  
0.9600  
Epoch 30537/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9594  
Epoch 30538/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9594  
Epoch 30539/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9596  
Epoch 30540/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9595  
Epoch 30541/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9585  
Epoch 30542/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy:  
0.9610  
Epoch 30543/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9590  
Epoch 30544/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0298 - accuracy:  
0.9594  
Epoch 30545/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9597  
Epoch 30546/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0299 - accuracy:  
0.9594  
Epoch 30547/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9589  
Epoch 30548/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9603  
Epoch 30549/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9596  
Epoch 30550/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy:  
0.9598  
Epoch 30551/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9585  
Epoch 30552/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9586  
Epoch 30553/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9604  
Epoch 30554/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9599  
Epoch 30555/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9597  
Epoch 30556/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9603  
Epoch 30557/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9599  
Epoch 30558/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9597  
Epoch 30559/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9590  
Epoch 30560/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9587  
Epoch 30561/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0298 - accuracy:  
0.9593  
Epoch 30562/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9595  
Epoch 30563/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0305 - accuracy:  
0.9596  
Epoch 30564/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9604  
Epoch 30565/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9587  
Epoch 30566/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9596  
Epoch 30567/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9603  
Epoch 30568/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9589  
Epoch 30569/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9597  
Epoch 30570/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9599  
Epoch 30571/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9598  
Epoch 30572/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9615  
Epoch 30573/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9596  
Epoch 30574/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0301 - accuracy:  
0.9592  
Epoch 30575/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9591  
Epoch 30576/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9591  
Epoch 30577/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9593  
Epoch 30578/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9590  
Epoch 30579/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9601  
Epoch 30580/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9595  
Epoch 30581/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9595  
Epoch 30582/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9597  
Epoch 30583/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0303 - accuracy:  
0.9602  
Epoch 30584/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9611  
Epoch 30585/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9589  
Epoch 30586/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9594  
Epoch 30587/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9595  
Epoch 30588/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9597  
Epoch 30589/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9599  
Epoch 30590/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9598  
Epoch 30591/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9594  
Epoch 30592/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0317 - accuracy:  
0.9593  
Epoch 30593/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9600  
Epoch 30594/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9596  
Epoch 30595/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9590  
Epoch 30596/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9604  
Epoch 30597/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9589  
Epoch 30598/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9597  
Epoch 30599/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9592  
Epoch 30600/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9601  
Epoch 30601/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0306 - accuracy:  
0.9589  
Epoch 30602/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9597  
Epoch 30603/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9599  
Epoch 30604/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9601  
Epoch 30605/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy:  
0.9589  
Epoch 30606/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9587  
Epoch 30607/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9603  
Epoch 30608/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9583  
Epoch 30609/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9593  
Epoch 30610/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9598  
Epoch 30611/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9592  
Epoch 30612/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9607  
Epoch 30613/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9592  
Epoch 30614/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9603  
Epoch 30615/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9606  
Epoch 30616/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy:  
0.9596  
Epoch 30617/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9597  
Epoch 30618/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9594  
Epoch 30619/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9592  
Epoch 30620/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9594  
Epoch 30621/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9599  
Epoch 30622/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy:  
0.9602  
Epoch 30623/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9596  
Epoch 30624/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9589  
Epoch 30625/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9604  
Epoch 30626/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9601  
Epoch 30627/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9588  
Epoch 30628/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9596  
Epoch 30629/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9597  
Epoch 30630/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9597  
Epoch 30631/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9600  
Epoch 30632/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9593  
Epoch 30633/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9594  
Epoch 30634/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9601  
Epoch 30635/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9600  
Epoch 30636/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9593  
Epoch 30637/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9602  
Epoch 30638/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9588  
Epoch 30639/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9600  
Epoch 30640/100000

2/2 [=====] - 0s 120ms/step - loss: 0.0304 - accuracy: 0.9599  
Epoch 30641/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9600  
Epoch 30642/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0307 - accuracy: 0.9593  
Epoch 30643/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy: 0.9604  
Epoch 30644/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9600  
Epoch 30645/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9594  
Epoch 30646/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0306 - accuracy: 0.9602  
Epoch 30647/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9592  
Epoch 30648/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy: 0.9603  
Epoch 30649/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0306 - accuracy: 0.9606  
Epoch 30650/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0309 - accuracy: 0.9605  
Epoch 30651/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0298 - accuracy: 0.9592  
Epoch 30652/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9596  
Epoch 30653/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9602  
Epoch 30654/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0302 - accuracy: 0.9591  
Epoch 30655/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy: 0.9590  
Epoch 30656/100000



2/2 [=====] - 0s 119ms/step - loss: 0.0306 - accuracy:  
0.9600  
Epoch 30657/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0306 - accuracy:  
0.9597  
Epoch 30658/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9595  
Epoch 30659/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9601  
Epoch 30660/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy:  
0.9599  
Epoch 30661/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9608  
Epoch 30662/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9595  
Epoch 30663/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9593  
Epoch 30664/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9600  
Epoch 30665/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9596  
Epoch 30666/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9597  
Epoch 30667/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0296 - accuracy:  
0.9591  
Epoch 30668/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9606  
Epoch 30669/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9598  
Epoch 30670/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9591  
Epoch 30671/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9604  
Epoch 30672/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9597  
Epoch 30673/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0298 - accuracy:  
0.9592  
Epoch 30674/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9591  
Epoch 30675/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9598  
Epoch 30676/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9591  
Epoch 30677/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9600  
Epoch 30678/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9598  
Epoch 30679/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9592  
Epoch 30680/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9597  
Epoch 30681/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9604  
Epoch 30682/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9597  
Epoch 30683/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9592  
Epoch 30684/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9593  
Epoch 30685/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9591  
Epoch 30686/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9595  
Epoch 30687/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy:  
0.9594  
Epoch 30688/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0298 - accuracy: 0.9598  
Epoch 30689/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy: 0.9590  
Epoch 30690/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9588  
Epoch 30691/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9595  
Epoch 30692/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy: 0.9591  
Epoch 30693/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9589  
Epoch 30694/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy: 0.9603  
Epoch 30695/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy: 0.9596  
Epoch 30696/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0303 - accuracy: 0.9611  
Epoch 30697/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy: 0.9596  
Epoch 30698/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9596  
Epoch 30699/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy: 0.9599  
Epoch 30700/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0309 - accuracy: 0.9607  
Epoch 30701/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9609  
Epoch 30702/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy: 0.9592  
Epoch 30703/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9596  
Epoch 30704/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9602  
Epoch 30705/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9594  
Epoch 30706/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9585  
Epoch 30707/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9594  
Epoch 30708/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9594  
Epoch 30709/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0305 - accuracy:  
0.9597  
Epoch 30710/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9593  
Epoch 30711/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9603  
Epoch 30712/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9600  
Epoch 30713/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9598  
Epoch 30714/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0324 - accuracy:  
0.9589  
Epoch 30715/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9591  
Epoch 30716/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0316 - accuracy:  
0.9599  
Epoch 30717/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0314 - accuracy:  
0.9595  
Epoch 30718/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy:  
0.9599  
Epoch 30719/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9599  
Epoch 30720/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9592  
Epoch 30721/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9594  
Epoch 30722/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9599  
Epoch 30723/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0296 - accuracy:  
0.9589  
Epoch 30724/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9601  
Epoch 30725/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9598  
Epoch 30726/100000  
2/2 [=====] - 0s 127ms/step - loss: 0.0303 - accuracy:  
0.9588  
Epoch 30727/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0309 - accuracy:  
0.9596  
Epoch 30728/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0305 - accuracy:  
0.9604  
Epoch 30729/100000  
2/2 [=====] - 0s 129ms/step - loss: 0.0303 - accuracy:  
0.9597  
Epoch 30730/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0303 - accuracy:  
0.9595  
Epoch 30731/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0295 - accuracy:  
0.9596  
Epoch 30732/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9600  
Epoch 30733/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9595  
Epoch 30734/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9598  
Epoch 30735/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9598  
Epoch 30736/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9591  
Epoch 30737/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9594  
Epoch 30738/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9596  
Epoch 30739/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0301 - accuracy:  
0.9592  
Epoch 30740/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9599  
Epoch 30741/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0299 - accuracy:  
0.9594  
Epoch 30742/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9595  
Epoch 30743/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9593  
Epoch 30744/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9583  
Epoch 30745/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9592  
Epoch 30746/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9590  
Epoch 30747/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9596  
Epoch 30748/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9601  
Epoch 30749/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9598  
Epoch 30750/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9599  
Epoch 30751/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9588  
Epoch 30752/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9595  
Epoch 30753/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9597  
Epoch 30754/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0304 - accuracy:  
0.9592  
Epoch 30755/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy:  
0.9599  
Epoch 30756/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0311 - accuracy:  
0.9595  
Epoch 30757/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9606  
Epoch 30758/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0303 - accuracy:  
0.9587  
Epoch 30759/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0306 - accuracy:  
0.9598  
Epoch 30760/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9592  
Epoch 30761/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0301 - accuracy:  
0.9598  
Epoch 30762/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9597  
Epoch 30763/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9599  
Epoch 30764/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9591  
Epoch 30765/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9588  
Epoch 30766/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9600  
Epoch 30767/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9590  
Epoch 30768/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9593  
Epoch 30769/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9603  
Epoch 30770/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9592  
Epoch 30771/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9591  
Epoch 30772/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy:  
0.9590  
Epoch 30773/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9593  
Epoch 30774/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9603  
Epoch 30775/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9599  
Epoch 30776/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy:  
0.9606  
Epoch 30777/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9589  
Epoch 30778/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9590  
Epoch 30779/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0299 - accuracy:  
0.9595  
Epoch 30780/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9601  
Epoch 30781/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9594  
Epoch 30782/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9595  
Epoch 30783/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9596  
Epoch 30784/100000



2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9600  
Epoch 30785/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9599  
Epoch 30786/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9598  
Epoch 30787/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9595  
Epoch 30788/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9597  
Epoch 30789/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0301 - accuracy:  
0.9595  
Epoch 30790/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9613  
Epoch 30791/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9599  
Epoch 30792/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy:  
0.9582  
Epoch 30793/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9597  
Epoch 30794/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9594  
Epoch 30795/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9591  
Epoch 30796/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9595  
Epoch 30797/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0292 - accuracy:  
0.9597  
Epoch 30798/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9588  
Epoch 30799/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9586  
Epoch 30800/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9589  
Epoch 30801/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9596  
Epoch 30802/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9591  
Epoch 30803/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9597  
Epoch 30804/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy:  
0.9599  
Epoch 30805/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9609  
Epoch 30806/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0329 - accuracy:  
0.9611  
Epoch 30807/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9591  
Epoch 30808/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy:  
0.9598  
Epoch 30809/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0309 - accuracy:  
0.9600  
Epoch 30810/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0321 - accuracy:  
0.9599  
Epoch 30811/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0309 - accuracy:  
0.9590  
Epoch 30812/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9601  
Epoch 30813/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9584  
Epoch 30814/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy:  
0.9598  
Epoch 30815/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9594  
Epoch 30816/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9597  
Epoch 30817/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0303 - accuracy:  
0.9591  
Epoch 30818/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9599  
Epoch 30819/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9589  
Epoch 30820/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9611  
Epoch 30821/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9602  
Epoch 30822/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy:  
0.9590  
Epoch 30823/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy:  
0.9603  
Epoch 30824/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0306 - accuracy:  
0.9600  
Epoch 30825/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0319 - accuracy:  
0.9595  
Epoch 30826/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9592  
Epoch 30827/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9597  
Epoch 30828/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0311 - accuracy:  
0.9589  
Epoch 30829/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9598  
Epoch 30830/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9588  
Epoch 30831/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0303 - accuracy:  
0.9595  
Epoch 30832/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9602  
Epoch 30833/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0304 - accuracy:  
0.9593  
Epoch 30834/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9595  
Epoch 30835/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9603  
Epoch 30836/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9598  
Epoch 30837/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0299 - accuracy:  
0.9602  
Epoch 30838/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9598  
Epoch 30839/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9597  
Epoch 30840/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9599  
Epoch 30841/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9602  
Epoch 30842/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9600  
Epoch 30843/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9603  
Epoch 30844/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9594  
Epoch 30845/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9603  
Epoch 30846/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9591  
Epoch 30847/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9591  
Epoch 30848/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9597  
Epoch 30849/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0306 - accuracy:  
0.9596  
Epoch 30850/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9601  
Epoch 30851/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9591  
Epoch 30852/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9591  
Epoch 30853/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9592  
Epoch 30854/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0300 - accuracy:  
0.9591  
Epoch 30855/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9593  
Epoch 30856/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0305 - accuracy:  
0.9601  
Epoch 30857/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9587  
Epoch 30858/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9598  
Epoch 30859/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0299 - accuracy:  
0.9593  
Epoch 30860/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9587  
Epoch 30861/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0297 - accuracy:  
0.9593  
Epoch 30862/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9598  
Epoch 30863/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9592  
Epoch 30864/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9599  
Epoch 30865/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9591  
Epoch 30866/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9607  
Epoch 30867/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9593  
Epoch 30868/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0304 - accuracy:  
0.9597  
Epoch 30869/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9592  
Epoch 30870/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9590  
Epoch 30871/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9600  
Epoch 30872/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9588  
Epoch 30873/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9599  
Epoch 30874/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9597  
Epoch 30875/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9597  
Epoch 30876/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9599  
Epoch 30877/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9605  
Epoch 30878/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0304 - accuracy:  
0.9598  
Epoch 30879/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9600  
Epoch 30880/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9598  
Epoch 30881/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9595  
Epoch 30882/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0293 - accuracy: 0.9588  
Epoch 30883/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9606  
Epoch 30884/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy: 0.9605  
Epoch 30885/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0305 - accuracy: 0.9595  
Epoch 30886/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9603  
Epoch 30887/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9593  
Epoch 30888/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9594  
Epoch 30889/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9600  
Epoch 30890/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9598  
Epoch 30891/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0296 - accuracy: 0.9594  
Epoch 30892/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy: 0.9601  
Epoch 30893/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy: 0.9587  
Epoch 30894/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy: 0.9589  
Epoch 30895/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy: 0.9605  
Epoch 30896/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9587  
Epoch 30897/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0314 - accuracy:  
0.9594  
Epoch 30898/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9590  
Epoch 30899/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0322 - accuracy:  
0.9602  
Epoch 30900/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0330 - accuracy:  
0.9595  
Epoch 30901/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0314 - accuracy:  
0.9593  
Epoch 30902/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9608  
Epoch 30903/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9587  
Epoch 30904/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9607  
Epoch 30905/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9606  
Epoch 30906/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9597  
Epoch 30907/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9588  
Epoch 30908/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9598  
Epoch 30909/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9602  
Epoch 30910/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9599  
Epoch 30911/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0310 - accuracy:  
0.9598  
Epoch 30912/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy: 0.9593  
Epoch 30913/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy: 0.9607  
Epoch 30914/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9597  
Epoch 30915/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9600  
Epoch 30916/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy: 0.9595  
Epoch 30917/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0313 - accuracy: 0.9596  
Epoch 30918/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy: 0.9598  
Epoch 30919/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy: 0.9598  
Epoch 30920/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy: 0.9600  
Epoch 30921/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy: 0.9593  
Epoch 30922/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9596  
Epoch 30923/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9607  
Epoch 30924/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy: 0.9596  
Epoch 30925/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy: 0.9599  
Epoch 30926/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9594  
Epoch 30927/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0311 - accuracy: 0.9603  
Epoch 30928/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9597  
Epoch 30929/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9594  
Epoch 30930/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0305 - accuracy:  
0.9597  
Epoch 30931/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9600  
Epoch 30932/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9600  
Epoch 30933/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9595  
Epoch 30934/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9604  
Epoch 30935/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9588  
Epoch 30936/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0296 - accuracy:  
0.9596  
Epoch 30937/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9598  
Epoch 30938/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9595  
Epoch 30939/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9603  
Epoch 30940/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9587  
Epoch 30941/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9591  
Epoch 30942/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0303 - accuracy:  
0.9598  
Epoch 30943/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9595  
Epoch 30944/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9592  
Epoch 30945/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0298 - accuracy:  
0.9600  
Epoch 30946/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9591  
Epoch 30947/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9593  
Epoch 30948/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9595  
Epoch 30949/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9595  
Epoch 30950/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9599  
Epoch 30951/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9595  
Epoch 30952/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0312 - accuracy:  
0.9592  
Epoch 30953/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9587  
Epoch 30954/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9599  
Epoch 30955/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9605  
Epoch 30956/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9591  
Epoch 30957/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9594  
Epoch 30958/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0302 - accuracy:  
0.9601  
Epoch 30959/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy:  
0.9606  
Epoch 30960/100000

2/2 [=====] - 0s 119ms/step - loss: 0.0301 - accuracy:  
0.9596  
Epoch 30961/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9606  
Epoch 30962/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9592  
Epoch 30963/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9601  
Epoch 30964/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy:  
0.9591  
Epoch 30965/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9598  
Epoch 30966/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9592  
Epoch 30967/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9595  
Epoch 30968/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0308 - accuracy:  
0.9598  
Epoch 30969/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0305 - accuracy:  
0.9609  
Epoch 30970/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9596  
Epoch 30971/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9592  
Epoch 30972/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9596  
Epoch 30973/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9590  
Epoch 30974/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9594  
Epoch 30975/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9598  
Epoch 30976/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9586  
Epoch 30977/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9588  
Epoch 30978/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9597  
Epoch 30979/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9608  
Epoch 30980/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9613  
Epoch 30981/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9591  
Epoch 30982/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9601  
Epoch 30983/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9598  
Epoch 30984/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9584  
Epoch 30985/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9594  
Epoch 30986/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9596  
Epoch 30987/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9595  
Epoch 30988/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9608  
Epoch 30989/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0305 - accuracy:  
0.9600  
Epoch 30990/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9594  
Epoch 30991/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy:  
0.9607  
Epoch 30992/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9610  
Epoch 30993/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9599  
Epoch 30994/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9597  
Epoch 30995/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9598  
Epoch 30996/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9594  
Epoch 30997/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9597  
Epoch 30998/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9601  
Epoch 30999/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9606  
Epoch 31000/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9594  
Epoch 31001/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9610  
Epoch 31002/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9593  
Epoch 31003/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0313 - accuracy:  
0.9595  
Epoch 31004/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy:  
0.9589  
Epoch 31005/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy:  
0.9603  
Epoch 31006/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0314 - accuracy:  
0.9588  
Epoch 31007/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9596  
Epoch 31008/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy: 0.9593  
 Epoch 31009/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy: 0.9608  
 Epoch 31010/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy: 0.9597  
 Epoch 31011/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9592  
 Epoch 31012/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0306 - accuracy: 0.9602  
 Epoch 31013/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0312 - accuracy: 0.9601  
 Epoch 31014/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy: 0.9603  
 Epoch 31015/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy: 0.9592  
 Epoch 31016/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy: 0.9596  
 Epoch 31017/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9604  
 Epoch 31018/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy: 0.9601  
 Epoch 31019/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0304 - accuracy: 0.9589  
 Epoch 31020/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9602  
 Epoch 31021/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy: 0.9606  
 Epoch 31022/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy: 0.9598  
 Epoch 31023/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy: 0.9590  
 Epoch 31024/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9598  
Epoch 31025/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy: 0.9606  
Epoch 31026/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0318 - accuracy: 0.9607  
Epoch 31027/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0317 - accuracy: 0.9592  
Epoch 31028/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9601  
Epoch 31029/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy: 0.9605  
Epoch 31030/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy: 0.9595  
Epoch 31031/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9597  
Epoch 31032/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0301 - accuracy: 0.9587  
Epoch 31033/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy: 0.9610  
Epoch 31034/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy: 0.9610  
Epoch 31035/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0308 - accuracy: 0.9594  
Epoch 31036/100000  
2/2 [=====] - 0s 126ms/step - loss: 0.0300 - accuracy: 0.9592  
Epoch 31037/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0300 - accuracy: 0.9595  
Epoch 31038/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0306 - accuracy: 0.9592  
Epoch 31039/100000  
2/2 [=====] - 0s 129ms/step - loss: 0.0295 - accuracy: 0.9596  
Epoch 31040/100000



2/2 [=====] - 0s 130ms/step - loss: 0.0300 - accuracy: 0.9593  
Epoch 31041/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy: 0.9594  
Epoch 31042/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy: 0.9598  
Epoch 31043/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0300 - accuracy: 0.9599  
Epoch 31044/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9590  
Epoch 31045/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9602  
Epoch 31046/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9594  
Epoch 31047/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy: 0.9589  
Epoch 31048/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy: 0.9592  
Epoch 31049/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0299 - accuracy: 0.9596  
Epoch 31050/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy: 0.9599  
Epoch 31051/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy: 0.9591  
Epoch 31052/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy: 0.9595  
Epoch 31053/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy: 0.9591  
Epoch 31054/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0303 - accuracy: 0.9594  
Epoch 31055/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy: 0.9600  
Epoch 31056/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9599  
Epoch 31057/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0299 - accuracy:  
0.9586  
Epoch 31058/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9583  
Epoch 31059/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy:  
0.9606  
Epoch 31060/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9596  
Epoch 31061/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9587  
Epoch 31062/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0303 - accuracy:  
0.9590  
Epoch 31063/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0310 - accuracy:  
0.9591  
Epoch 31064/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0325 - accuracy:  
0.9600  
Epoch 31065/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9596  
Epoch 31066/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0313 - accuracy:  
0.9597  
Epoch 31067/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0316 - accuracy:  
0.9599  
Epoch 31068/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy:  
0.9603  
Epoch 31069/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy:  
0.9599  
Epoch 31070/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9600  
Epoch 31071/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9590  
Epoch 31072/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9598  
Epoch 31073/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9594  
Epoch 31074/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9591  
Epoch 31075/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9599  
Epoch 31076/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9585  
Epoch 31077/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0300 - accuracy:  
0.9592  
Epoch 31078/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9601  
Epoch 31079/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9602  
Epoch 31080/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0303 - accuracy:  
0.9603  
Epoch 31081/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9597  
Epoch 31082/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9601  
Epoch 31083/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9607  
Epoch 31084/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9605  
Epoch 31085/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy:  
0.9597  
Epoch 31086/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9595  
Epoch 31087/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9594  
Epoch 31088/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9597  
Epoch 31089/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9597  
Epoch 31090/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9593  
Epoch 31091/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy:  
0.9591  
Epoch 31092/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9592  
Epoch 31093/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9589  
Epoch 31094/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9592  
Epoch 31095/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9587  
Epoch 31096/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9591  
Epoch 31097/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9593  
Epoch 31098/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9599  
Epoch 31099/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9592  
Epoch 31100/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9593  
Epoch 31101/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9595  
Epoch 31102/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9589  
Epoch 31103/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9595  
Epoch 31104/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9586  
Epoch 31105/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9600  
Epoch 31106/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9598  
Epoch 31107/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9603  
Epoch 31108/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0293 - accuracy:  
0.9584  
Epoch 31109/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9607  
Epoch 31110/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9597  
Epoch 31111/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9606  
Epoch 31112/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9597  
Epoch 31113/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9601  
Epoch 31114/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy:  
0.9598  
Epoch 31115/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0298 - accuracy:  
0.9603  
Epoch 31116/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9592  
Epoch 31117/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9597  
Epoch 31118/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9591  
Epoch 31119/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9603  
Epoch 31120/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9597  
Epoch 31121/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9597  
Epoch 31122/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0304 - accuracy:  
0.9596  
Epoch 31123/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9607  
Epoch 31124/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0312 - accuracy:  
0.9597  
Epoch 31125/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0306 - accuracy:  
0.9599  
Epoch 31126/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9598  
Epoch 31127/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9595  
Epoch 31128/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9606  
Epoch 31129/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9594  
Epoch 31130/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9596  
Epoch 31131/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9595  
Epoch 31132/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9593  
Epoch 31133/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0311 - accuracy:  
0.9590  
Epoch 31134/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9593  
Epoch 31135/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9596  
Epoch 31136/100000

2/2 [=====] - 0s 119ms/step - loss: 0.0305 - accuracy:  
0.9603  
Epoch 31137/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9588  
Epoch 31138/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9595  
Epoch 31139/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0308 - accuracy:  
0.9593  
Epoch 31140/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9602  
Epoch 31141/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9591  
Epoch 31142/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9589  
Epoch 31143/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9597  
Epoch 31144/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0306 - accuracy:  
0.9598  
Epoch 31145/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9591  
Epoch 31146/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9602  
Epoch 31147/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9601  
Epoch 31148/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9594  
Epoch 31149/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0304 - accuracy:  
0.9604  
Epoch 31150/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9600  
Epoch 31151/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9594  
Epoch 31152/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9597  
Epoch 31153/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9596  
Epoch 31154/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9593  
Epoch 31155/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0295 - accuracy:  
0.9594  
Epoch 31156/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9597  
Epoch 31157/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9598  
Epoch 31158/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy:  
0.9594  
Epoch 31159/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9597  
Epoch 31160/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0292 - accuracy:  
0.9586  
Epoch 31161/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9598  
Epoch 31162/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9600  
Epoch 31163/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9597  
Epoch 31164/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9601  
Epoch 31165/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0301 - accuracy:  
0.9601  
Epoch 31166/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy:  
0.9589  
Epoch 31167/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0300 - accuracy:  
0.9590  
Epoch 31168/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9586  
Epoch 31169/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy: 0.9587  
Epoch 31170/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy: 0.9597  
Epoch 31171/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9601  
Epoch 31172/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9597  
Epoch 31173/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0304 - accuracy: 0.9597  
Epoch 31174/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy: 0.9600  
Epoch 31175/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9590  
Epoch 31176/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy: 0.9609  
Epoch 31177/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy: 0.9592  
Epoch 31178/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0315 - accuracy: 0.9600  
Epoch 31179/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy: 0.9601  
Epoch 31180/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy: 0.9602  
Epoch 31181/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9598  
Epoch 31182/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9598  
Epoch 31183/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy: 0.9602  
Epoch 31184/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0311 - accuracy:  
0.9594  
Epoch 31185/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9608  
Epoch 31186/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
0.9595  
Epoch 31187/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy:  
0.9598  
Epoch 31188/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0302 - accuracy:  
0.9596  
Epoch 31189/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9596  
Epoch 31190/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9587  
Epoch 31191/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9593  
Epoch 31192/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0301 - accuracy:  
0.9594  
Epoch 31193/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy:  
0.9597  
Epoch 31194/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0302 - accuracy:  
0.9597  
Epoch 31195/100000  
2/2 [=====] - 0s 126ms/step - loss: 0.0303 - accuracy:  
0.9595  
Epoch 31196/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0305 - accuracy:  
0.9604  
Epoch 31197/100000  
2/2 [=====] - 0s 129ms/step - loss: 0.0303 - accuracy:  
0.9593  
Epoch 31198/100000  
2/2 [=====] - 0s 127ms/step - loss: 0.0309 - accuracy:  
0.9599  
Epoch 31199/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0301 - accuracy:  
0.9594  
Epoch 31200/100000

2/2 [=====] - 0s 125ms/step - loss: 0.0300 - accuracy: 0.9604  
Epoch 31201/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0315 - accuracy: 0.9597  
Epoch 31202/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0317 - accuracy: 0.9594  
Epoch 31203/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0307 - accuracy: 0.9592  
Epoch 31204/100000  
2/2 [=====] - 0s 141ms/step - loss: 0.0300 - accuracy: 0.9601  
Epoch 31205/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0299 - accuracy: 0.9594  
Epoch 31206/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy: 0.9589  
Epoch 31207/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy: 0.9597  
Epoch 31208/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9588  
Epoch 31209/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy: 0.9599  
Epoch 31210/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy: 0.9589  
Epoch 31211/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9600  
Epoch 31212/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9590  
Epoch 31213/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy: 0.9595  
Epoch 31214/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy: 0.9597  
Epoch 31215/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy: 0.9588  
Epoch 31216/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9593  
Epoch 31217/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy: 0.9595  
Epoch 31218/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy: 0.9586  
Epoch 31219/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy: 0.9597  
Epoch 31220/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9595  
Epoch 31221/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9596  
Epoch 31222/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0319 - accuracy: 0.9612  
Epoch 31223/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0311 - accuracy: 0.9595  
Epoch 31224/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy: 0.9592  
Epoch 31225/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy: 0.9590  
Epoch 31226/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy: 0.9597  
Epoch 31227/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0306 - accuracy: 0.9604  
Epoch 31228/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy: 0.9602  
Epoch 31229/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy: 0.9597  
Epoch 31230/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy: 0.9590  
Epoch 31231/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy: 0.9602  
Epoch 31232/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9599  
Epoch 31233/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9599  
Epoch 31234/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9603  
Epoch 31235/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0308 - accuracy: 0.9597  
Epoch 31236/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0303 - accuracy: 0.9589  
Epoch 31237/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9604  
Epoch 31238/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy: 0.9596  
Epoch 31239/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9593  
Epoch 31240/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy: 0.9594  
Epoch 31241/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy: 0.9602  
Epoch 31242/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9591  
Epoch 31243/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9592  
Epoch 31244/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9590  
Epoch 31245/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy: 0.9599  
Epoch 31246/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy: 0.9588  
Epoch 31247/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy: 0.9606  
Epoch 31248/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9590  
Epoch 31249/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9597  
Epoch 31250/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy:  
0.9589  
Epoch 31251/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9594  
Epoch 31252/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9590  
Epoch 31253/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0303 - accuracy:  
0.9592  
Epoch 31254/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9599  
Epoch 31255/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9603  
Epoch 31256/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9598  
Epoch 31257/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9587  
Epoch 31258/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9600  
Epoch 31259/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9599  
Epoch 31260/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy:  
0.9589  
Epoch 31261/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9603  
Epoch 31262/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9600  
Epoch 31263/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9594  
Epoch 31264/100000

2/2 [=====] - 0s 113ms/step - loss: 0.0303 - accuracy:  
0.9594  
Epoch 31265/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0301 - accuracy:  
0.9614  
Epoch 31266/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9594  
Epoch 31267/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9583  
Epoch 31268/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9605  
Epoch 31269/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9595  
Epoch 31270/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9592  
Epoch 31271/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy:  
0.9609  
Epoch 31272/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9595  
Epoch 31273/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9601  
Epoch 31274/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9598  
Epoch 31275/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9606  
Epoch 31276/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9598  
Epoch 31277/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9593  
Epoch 31278/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9604  
Epoch 31279/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9597  
Epoch 31280/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9604  
Epoch 31281/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy:  
0.9599  
Epoch 31282/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9608  
Epoch 31283/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9606  
Epoch 31284/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9591  
Epoch 31285/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9610  
Epoch 31286/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9592  
Epoch 31287/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9593  
Epoch 31288/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9598  
Epoch 31289/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0304 - accuracy:  
0.9601  
Epoch 31290/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0299 - accuracy:  
0.9599  
Epoch 31291/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0300 - accuracy:  
0.9592  
Epoch 31292/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9592  
Epoch 31293/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy:  
0.9594  
Epoch 31294/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9605  
Epoch 31295/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9592  
Epoch 31296/100000



2/2 [=====] - 0s 118ms/step - loss: 0.0301 - accuracy:  
0.9592  
Epoch 31297/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9600  
Epoch 31298/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9589  
Epoch 31299/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9589  
Epoch 31300/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0305 - accuracy:  
0.9604  
Epoch 31301/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9596  
Epoch 31302/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9604  
Epoch 31303/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9600  
Epoch 31304/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9599  
Epoch 31305/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9594  
Epoch 31306/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9599  
Epoch 31307/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9597  
Epoch 31308/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0304 - accuracy:  
0.9606  
Epoch 31309/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9589  
Epoch 31310/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9602  
Epoch 31311/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0296 - accuracy:  
0.9590  
Epoch 31312/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0299 - accuracy:  
0.9592  
Epoch 31313/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9604  
Epoch 31314/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9593  
Epoch 31315/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9608  
Epoch 31316/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9594  
Epoch 31317/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9598  
Epoch 31318/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9611  
Epoch 31319/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9596  
Epoch 31320/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9600  
Epoch 31321/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9593  
Epoch 31322/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9606  
Epoch 31323/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9594  
Epoch 31324/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9597  
Epoch 31325/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9593  
Epoch 31326/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9601  
Epoch 31327/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9588  
Epoch 31328/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9591  
Epoch 31329/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy:  
0.9590  
Epoch 31330/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9599  
Epoch 31331/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0308 - accuracy:  
0.9594  
Epoch 31332/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0311 - accuracy:  
0.9602  
Epoch 31333/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy:  
0.9603  
Epoch 31334/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy:  
0.9594  
Epoch 31335/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9601  
Epoch 31336/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9598  
Epoch 31337/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0310 - accuracy:  
0.9597  
Epoch 31338/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0300 - accuracy:  
0.9589  
Epoch 31339/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9601  
Epoch 31340/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9601  
Epoch 31341/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9583  
Epoch 31342/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0316 - accuracy:  
0.9595  
Epoch 31343/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9592  
Epoch 31344/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9606  
Epoch 31345/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9599  
Epoch 31346/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9604  
Epoch 31347/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0310 - accuracy:  
0.9598  
Epoch 31348/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9607  
Epoch 31349/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9599  
Epoch 31350/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9593  
Epoch 31351/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9602  
Epoch 31352/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9596  
Epoch 31353/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9603  
Epoch 31354/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9595  
Epoch 31355/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9588  
Epoch 31356/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9596  
Epoch 31357/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9593  
Epoch 31358/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9591  
Epoch 31359/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9590  
Epoch 31360/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9591  
Epoch 31361/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9597  
Epoch 31362/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9599  
Epoch 31363/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9587  
Epoch 31364/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9599  
Epoch 31365/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9600  
Epoch 31366/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9596  
Epoch 31367/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9601  
Epoch 31368/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9607  
Epoch 31369/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9599  
Epoch 31370/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9594  
Epoch 31371/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9589  
Epoch 31372/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9597  
Epoch 31373/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9593  
Epoch 31374/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9597  
Epoch 31375/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9598  
Epoch 31376/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0315 - accuracy:  
0.9598  
Epoch 31377/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0309 - accuracy:  
0.9602  
Epoch 31378/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9594  
Epoch 31379/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9598  
Epoch 31380/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0313 - accuracy:  
0.9590  
Epoch 31381/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9596  
Epoch 31382/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9592  
Epoch 31383/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0301 - accuracy:  
0.9604  
Epoch 31384/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9595  
Epoch 31385/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9594  
Epoch 31386/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9594  
Epoch 31387/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9598  
Epoch 31388/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9595  
Epoch 31389/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9590  
Epoch 31390/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9597  
Epoch 31391/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9601  
Epoch 31392/100000

2/2 [=====] - 0s 120ms/step - loss: 0.0298 - accuracy:  
0.9600  
Epoch 31393/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9592  
Epoch 31394/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0301 - accuracy:  
0.9601  
Epoch 31395/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9597  
Epoch 31396/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9590  
Epoch 31397/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9599  
Epoch 31398/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9594  
Epoch 31399/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9590  
Epoch 31400/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9603  
Epoch 31401/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy:  
0.9588  
Epoch 31402/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9596  
Epoch 31403/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy:  
0.9606  
Epoch 31404/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9595  
Epoch 31405/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9596  
Epoch 31406/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0302 - accuracy:  
0.9602  
Epoch 31407/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9596  
Epoch 31408/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy: 0.9588  
Epoch 31409/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy: 0.9603  
Epoch 31410/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy: 0.9595  
Epoch 31411/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy: 0.9593  
Epoch 31412/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9595  
Epoch 31413/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9581  
Epoch 31414/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy: 0.9603  
Epoch 31415/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy: 0.9598  
Epoch 31416/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy: 0.9591  
Epoch 31417/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy: 0.9594  
Epoch 31418/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy: 0.9591  
Epoch 31419/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9597  
Epoch 31420/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0294 - accuracy: 0.9585  
Epoch 31421/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9590  
Epoch 31422/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9591  
Epoch 31423/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy: 0.9589  
Epoch 31424/100000



2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9588  
Epoch 31425/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0310 - accuracy:  
0.9604  
Epoch 31426/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9600  
Epoch 31427/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9605  
Epoch 31428/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9604  
Epoch 31429/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9593  
Epoch 31430/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9591  
Epoch 31431/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9583  
Epoch 31432/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9597  
Epoch 31433/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9588  
Epoch 31434/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0294 - accuracy:  
0.9599  
Epoch 31435/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9591  
Epoch 31436/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9598  
Epoch 31437/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9596  
Epoch 31438/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9593  
Epoch 31439/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9590  
Epoch 31440/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9590  
Epoch 31441/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0297 - accuracy:  
0.9601  
Epoch 31442/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9593  
Epoch 31443/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9610  
Epoch 31444/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9603  
Epoch 31445/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9596  
Epoch 31446/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9592  
Epoch 31447/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9587  
Epoch 31448/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0302 - accuracy:  
0.9598  
Epoch 31449/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9585  
Epoch 31450/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9587  
Epoch 31451/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9598  
Epoch 31452/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9602  
Epoch 31453/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9601  
Epoch 31454/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9602  
Epoch 31455/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9592  
Epoch 31456/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9597  
Epoch 31457/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0300 - accuracy:  
0.9600  
Epoch 31458/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9588  
Epoch 31459/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9588  
Epoch 31460/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0302 - accuracy:  
0.9592  
Epoch 31461/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9600  
Epoch 31462/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9593  
Epoch 31463/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9598  
Epoch 31464/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9594  
Epoch 31465/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9596  
Epoch 31466/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0304 - accuracy:  
0.9595  
Epoch 31467/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9596  
Epoch 31468/100000  
2/2 [=====] - 0s 128ms/step - loss: 0.0296 - accuracy:  
0.9594  
Epoch 31469/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0301 - accuracy:  
0.9600  
Epoch 31470/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0297 - accuracy:  
0.9603  
Epoch 31471/100000  
2/2 [=====] - 0s 128ms/step - loss: 0.0300 - accuracy:  
0.9593  
Epoch 31472/100000

2/2 [=====] - 0s 123ms/step - loss: 0.0300 - accuracy:  
0.9600  
Epoch 31473/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0301 - accuracy:  
0.9596  
Epoch 31474/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0293 - accuracy:  
0.9592  
Epoch 31475/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9591  
Epoch 31476/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0294 - accuracy:  
0.9592  
Epoch 31477/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9587  
Epoch 31478/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0306 - accuracy:  
0.9592  
Epoch 31479/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9595  
Epoch 31480/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9605  
Epoch 31481/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9597  
Epoch 31482/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9591  
Epoch 31483/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9604  
Epoch 31484/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0302 - accuracy:  
0.9595  
Epoch 31485/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9601  
Epoch 31486/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9599  
Epoch 31487/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9601  
Epoch 31488/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9600  
Epoch 31489/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9602  
Epoch 31490/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9594  
Epoch 31491/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9606  
Epoch 31492/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9592  
Epoch 31493/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy:  
0.9591  
Epoch 31494/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9605  
Epoch 31495/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9604  
Epoch 31496/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9593  
Epoch 31497/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9600  
Epoch 31498/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9603  
Epoch 31499/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9586  
Epoch 31500/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9603  
Epoch 31501/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9593  
Epoch 31502/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9589  
Epoch 31503/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9594  
Epoch 31504/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0314 - accuracy:  
0.9585  
Epoch 31505/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9592  
Epoch 31506/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9593  
Epoch 31507/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0311 - accuracy:  
0.9597  
Epoch 31508/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9598  
Epoch 31509/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9599  
Epoch 31510/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0312 - accuracy:  
0.9600  
Epoch 31511/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9593  
Epoch 31512/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9591  
Epoch 31513/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9603  
Epoch 31514/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9596  
Epoch 31515/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0313 - accuracy:  
0.9599  
Epoch 31516/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy:  
0.9603  
Epoch 31517/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0317 - accuracy:  
0.9597  
Epoch 31518/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9595  
Epoch 31519/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy:  
0.9594  
Epoch 31520/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0315 - accuracy:  
0.9609  
Epoch 31521/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9597  
Epoch 31522/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9595  
Epoch 31523/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9590  
Epoch 31524/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9590  
Epoch 31525/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9594  
Epoch 31526/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9593  
Epoch 31527/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9593  
Epoch 31528/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0299 - accuracy:  
0.9597  
Epoch 31529/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9590  
Epoch 31530/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9593  
Epoch 31531/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9599  
Epoch 31532/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9605  
Epoch 31533/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9599  
Epoch 31534/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy:  
0.9593  
Epoch 31535/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9596  
Epoch 31536/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9602  
Epoch 31537/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9595  
Epoch 31538/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9593  
Epoch 31539/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9581  
Epoch 31540/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9596  
Epoch 31541/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9592  
Epoch 31542/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9596  
Epoch 31543/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9593  
Epoch 31544/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9594  
Epoch 31545/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0294 - accuracy:  
0.9598  
Epoch 31546/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9601  
Epoch 31547/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9593  
Epoch 31548/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0301 - accuracy:  
0.9582  
Epoch 31549/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0298 - accuracy:  
0.9595  
Epoch 31550/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9593  
Epoch 31551/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9596  
Epoch 31552/100000



2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9603  
Epoch 31553/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9591  
Epoch 31554/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9606  
Epoch 31555/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9594  
Epoch 31556/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9593  
Epoch 31557/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9599  
Epoch 31558/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0312 - accuracy:  
0.9594  
Epoch 31559/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0325 - accuracy:  
0.9602  
Epoch 31560/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9601  
Epoch 31561/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0316 - accuracy:  
0.9587  
Epoch 31562/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0355 - accuracy:  
0.9597  
Epoch 31563/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0330 - accuracy:  
0.9596  
Epoch 31564/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0323 - accuracy:  
0.9591  
Epoch 31565/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9583  
Epoch 31566/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9586  
Epoch 31567/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0314 - accuracy:  
0.9612  
Epoch 31568/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9602  
Epoch 31569/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0321 - accuracy:  
0.9600  
Epoch 31570/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy:  
0.9598  
Epoch 31571/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy:  
0.9605  
Epoch 31572/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0338 - accuracy:  
0.9602  
Epoch 31573/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0330 - accuracy:  
0.9600  
Epoch 31574/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9592  
Epoch 31575/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9592  
Epoch 31576/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9593  
Epoch 31577/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9603  
Epoch 31578/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9598  
Epoch 31579/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9602  
Epoch 31580/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9600  
Epoch 31581/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9589  
Epoch 31582/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9598  
Epoch 31583/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9585  
Epoch 31584/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9584  
Epoch 31585/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9595  
Epoch 31586/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0302 - accuracy:  
0.9594  
Epoch 31587/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9603  
Epoch 31588/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy:  
0.9599  
Epoch 31589/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy:  
0.9599  
Epoch 31590/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9594  
Epoch 31591/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9599  
Epoch 31592/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9599  
Epoch 31593/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9593  
Epoch 31594/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9600  
Epoch 31595/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9598  
Epoch 31596/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9587  
Epoch 31597/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9597  
Epoch 31598/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0305 - accuracy:  
0.9589  
Epoch 31599/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0314 - accuracy:  
0.9600  
Epoch 31600/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9594  
Epoch 31601/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy: 0.9591  
Epoch 31602/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9593  
Epoch 31603/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy: 0.9584  
Epoch 31604/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9604  
Epoch 31605/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9594  
Epoch 31606/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy: 0.9598  
Epoch 31607/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy: 0.9601  
Epoch 31608/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9593  
Epoch 31609/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy: 0.9591  
Epoch 31610/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9593  
Epoch 31611/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy: 0.9592  
Epoch 31612/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0303 - accuracy: 0.9594  
Epoch 31613/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy: 0.9601  
Epoch 31614/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0302 - accuracy: 0.9603  
Epoch 31615/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0303 - accuracy: 0.9596  
Epoch 31616/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy:  
0.9588  
Epoch 31617/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9597  
Epoch 31618/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9596  
Epoch 31619/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0304 - accuracy:  
0.9600  
Epoch 31620/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9596  
Epoch 31621/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0301 - accuracy:  
0.9595  
Epoch 31622/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9602  
Epoch 31623/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9589  
Epoch 31624/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9597  
Epoch 31625/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9593  
Epoch 31626/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy:  
0.9605  
Epoch 31627/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9595  
Epoch 31628/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9591  
Epoch 31629/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0307 - accuracy:  
0.9606  
Epoch 31630/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9596  
Epoch 31631/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9602  
Epoch 31632/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9610  
Epoch 31633/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9593  
Epoch 31634/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9601  
Epoch 31635/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0301 - accuracy:  
0.9599  
Epoch 31636/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9601  
Epoch 31637/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0307 - accuracy:  
0.9590  
Epoch 31638/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0309 - accuracy:  
0.9594  
Epoch 31639/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9594  
Epoch 31640/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9602  
Epoch 31641/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9602  
Epoch 31642/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0303 - accuracy:  
0.9595  
Epoch 31643/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9593  
Epoch 31644/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9593  
Epoch 31645/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0305 - accuracy:  
0.9599  
Epoch 31646/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9602  
Epoch 31647/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9598  
Epoch 31648/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy: 0.9592  
Epoch 31649/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9593  
Epoch 31650/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9602  
Epoch 31651/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9602  
Epoch 31652/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy: 0.9598  
Epoch 31653/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0309 - accuracy: 0.9594  
Epoch 31654/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0310 - accuracy: 0.9595  
Epoch 31655/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0305 - accuracy: 0.9600  
Epoch 31656/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy: 0.9596  
Epoch 31657/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0312 - accuracy: 0.9602  
Epoch 31658/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0309 - accuracy: 0.9588  
Epoch 31659/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy: 0.9598  
Epoch 31660/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0304 - accuracy: 0.9599  
Epoch 31661/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy: 0.9604  
Epoch 31662/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy: 0.9601  
Epoch 31663/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9591  
Epoch 31664/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9603  
Epoch 31665/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9597  
Epoch 31666/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9601  
Epoch 31667/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9602  
Epoch 31668/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9591  
Epoch 31669/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9595  
Epoch 31670/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9597  
Epoch 31671/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9598  
Epoch 31672/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9590  
Epoch 31673/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9592  
Epoch 31674/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9591  
Epoch 31675/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0298 - accuracy:  
0.9595  
Epoch 31676/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy:  
0.9605  
Epoch 31677/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9595  
Epoch 31678/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9602  
Epoch 31679/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9595  
Epoch 31680/100000



2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9595  
Epoch 31681/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9600  
Epoch 31682/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0315 - accuracy:  
0.9604  
Epoch 31683/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9609  
Epoch 31684/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9597  
Epoch 31685/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9594  
Epoch 31686/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9592  
Epoch 31687/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9590  
Epoch 31688/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9599  
Epoch 31689/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9595  
Epoch 31690/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9597  
Epoch 31691/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9598  
Epoch 31692/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9594  
Epoch 31693/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0298 - accuracy:  
0.9599  
Epoch 31694/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9593  
Epoch 31695/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0305 - accuracy:  
0.9601  
Epoch 31696/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9606  
Epoch 31697/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy:  
0.9597  
Epoch 31698/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9591  
Epoch 31699/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0299 - accuracy:  
0.9595  
Epoch 31700/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9600  
Epoch 31701/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9592  
Epoch 31702/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9601  
Epoch 31703/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy:  
0.9596  
Epoch 31704/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9594  
Epoch 31705/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9585  
Epoch 31706/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0293 - accuracy:  
0.9598  
Epoch 31707/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9610  
Epoch 31708/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9597  
Epoch 31709/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9595  
Epoch 31710/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9600  
Epoch 31711/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9597  
Epoch 31712/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy: 0.9600  
Epoch 31713/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy: 0.9596  
Epoch 31714/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0301 - accuracy: 0.9598  
Epoch 31715/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0309 - accuracy: 0.9595  
Epoch 31716/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0306 - accuracy: 0.9597  
Epoch 31717/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy: 0.9593  
Epoch 31718/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9594  
Epoch 31719/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy: 0.9602  
Epoch 31720/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy: 0.9612  
Epoch 31721/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy: 0.9592  
Epoch 31722/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy: 0.9593  
Epoch 31723/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy: 0.9593  
Epoch 31724/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9596  
Epoch 31725/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9584  
Epoch 31726/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9599  
Epoch 31727/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9591  
Epoch 31728/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9595  
Epoch 31729/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9589  
Epoch 31730/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9597  
Epoch 31731/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9597  
Epoch 31732/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9596  
Epoch 31733/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9588  
Epoch 31734/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9597  
Epoch 31735/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9599  
Epoch 31736/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9591  
Epoch 31737/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9588  
Epoch 31738/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9591  
Epoch 31739/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9603  
Epoch 31740/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9599  
Epoch 31741/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9594  
Epoch 31742/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9603  
Epoch 31743/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9599  
Epoch 31744/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9589  
Epoch 31745/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9598  
Epoch 31746/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0302 - accuracy:  
0.9594  
Epoch 31747/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9601  
Epoch 31748/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9603  
Epoch 31749/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0302 - accuracy:  
0.9582  
Epoch 31750/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9592  
Epoch 31751/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0300 - accuracy:  
0.9604  
Epoch 31752/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9594  
Epoch 31753/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9596  
Epoch 31754/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9599  
Epoch 31755/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy:  
0.9597  
Epoch 31756/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9594  
Epoch 31757/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
0.9590  
Epoch 31758/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9594  
Epoch 31759/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0295 - accuracy:  
0.9597  
Epoch 31760/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9606  
Epoch 31761/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9594  
Epoch 31762/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy: 0.9595  
Epoch 31763/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy: 0.9596  
Epoch 31764/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9597  
Epoch 31765/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy: 0.9601  
Epoch 31766/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy: 0.9597  
Epoch 31767/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy: 0.9597  
Epoch 31768/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9602  
Epoch 31769/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9598  
Epoch 31770/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy: 0.9592  
Epoch 31771/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy: 0.9604  
Epoch 31772/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy: 0.9592  
Epoch 31773/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9588  
Epoch 31774/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0295 - accuracy: 0.9594  
Epoch 31775/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy: 0.9592  
Epoch 31776/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0301 - accuracy:  
0.9593  
Epoch 31777/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9591  
Epoch 31778/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0298 - accuracy:  
0.9597  
Epoch 31779/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy:  
0.9588  
Epoch 31780/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9594  
Epoch 31781/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9593  
Epoch 31782/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy:  
0.9592  
Epoch 31783/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9599  
Epoch 31784/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9592  
Epoch 31785/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9591  
Epoch 31786/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0301 - accuracy:  
0.9597  
Epoch 31787/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy:  
0.9596  
Epoch 31788/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9601  
Epoch 31789/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0296 - accuracy:  
0.9594  
Epoch 31790/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9590  
Epoch 31791/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0297 - accuracy:  
0.9597  
Epoch 31792/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9604  
Epoch 31793/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy:  
0.9588  
Epoch 31794/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9588  
Epoch 31795/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9605  
Epoch 31796/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9599  
Epoch 31797/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9589  
Epoch 31798/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9591  
Epoch 31799/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9603  
Epoch 31800/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9592  
Epoch 31801/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9588  
Epoch 31802/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0303 - accuracy:  
0.9602  
Epoch 31803/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9610  
Epoch 31804/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9600  
Epoch 31805/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9586  
Epoch 31806/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0298 - accuracy:  
0.9599  
Epoch 31807/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9593  
Epoch 31808/100000



2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy: 0.9601  
Epoch 31809/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0309 - accuracy: 0.9598  
Epoch 31810/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy: 0.9592  
Epoch 31811/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0300 - accuracy: 0.9604  
Epoch 31812/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0298 - accuracy: 0.9584  
Epoch 31813/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9603  
Epoch 31814/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy: 0.9597  
Epoch 31815/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9590  
Epoch 31816/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0296 - accuracy: 0.9588  
Epoch 31817/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy: 0.9597  
Epoch 31818/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0300 - accuracy: 0.9603  
Epoch 31819/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy: 0.9589  
Epoch 31820/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy: 0.9592  
Epoch 31821/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy: 0.9597  
Epoch 31822/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0296 - accuracy: 0.9597  
Epoch 31823/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy: 0.9591  
Epoch 31824/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9603  
Epoch 31825/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9592  
Epoch 31826/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0306 - accuracy:  
0.9593  
Epoch 31827/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9601  
Epoch 31828/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9591  
Epoch 31829/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0311 - accuracy:  
0.9600  
Epoch 31830/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9606  
Epoch 31831/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9601  
Epoch 31832/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0301 - accuracy:  
0.9594  
Epoch 31833/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy:  
0.9584  
Epoch 31834/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9602  
Epoch 31835/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9594  
Epoch 31836/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9597  
Epoch 31837/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0306 - accuracy:  
0.9602  
Epoch 31838/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9593  
Epoch 31839/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9595  
Epoch 31840/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9594  
Epoch 31841/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9601  
Epoch 31842/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9594  
Epoch 31843/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9595  
Epoch 31844/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9594  
Epoch 31845/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9598  
Epoch 31846/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9588  
Epoch 31847/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9591  
Epoch 31848/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9600  
Epoch 31849/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9589  
Epoch 31850/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9585  
Epoch 31851/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9588  
Epoch 31852/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9596  
Epoch 31853/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9597  
Epoch 31854/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9599  
Epoch 31855/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9602  
Epoch 31856/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9603  
Epoch 31857/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9603  
Epoch 31858/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9601  
Epoch 31859/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9608  
Epoch 31860/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9593  
Epoch 31861/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9596  
Epoch 31862/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0297 - accuracy:  
0.9599  
Epoch 31863/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9598  
Epoch 31864/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9604  
Epoch 31865/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9596  
Epoch 31866/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9597  
Epoch 31867/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0309 - accuracy:  
0.9598  
Epoch 31868/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9586  
Epoch 31869/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9597  
Epoch 31870/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9594  
Epoch 31871/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9604  
Epoch 31872/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9597  
Epoch 31873/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9591  
Epoch 31874/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9596  
Epoch 31875/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9595  
Epoch 31876/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy:  
0.9599  
Epoch 31877/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0301 - accuracy:  
0.9596  
Epoch 31878/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0295 - accuracy:  
0.9596  
Epoch 31879/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9599  
Epoch 31880/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9603  
Epoch 31881/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9602  
Epoch 31882/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9593  
Epoch 31883/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0303 - accuracy:  
0.9603  
Epoch 31884/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0297 - accuracy:  
0.9587  
Epoch 31885/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9593  
Epoch 31886/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0298 - accuracy:  
0.9595  
Epoch 31887/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9598  
Epoch 31888/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9596  
Epoch 31889/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9597  
Epoch 31890/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9593  
Epoch 31891/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9605  
Epoch 31892/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9594  
Epoch 31893/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9597  
Epoch 31894/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9597  
Epoch 31895/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9602  
Epoch 31896/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9596  
Epoch 31897/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0307 - accuracy:  
0.9598  
Epoch 31898/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9586  
Epoch 31899/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0323 - accuracy:  
0.9595  
Epoch 31900/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy:  
0.9588  
Epoch 31901/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0322 - accuracy:  
0.9595  
Epoch 31902/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9602  
Epoch 31903/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9596  
Epoch 31904/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0319 - accuracy: 0.9599  
Epoch 31905/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0318 - accuracy: 0.9592  
Epoch 31906/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy: 0.9604  
Epoch 31907/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0320 - accuracy: 0.9596  
Epoch 31908/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy: 0.9594  
Epoch 31909/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0313 - accuracy: 0.9599  
Epoch 31910/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9593  
Epoch 31911/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy: 0.9602  
Epoch 31912/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9594  
Epoch 31913/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9597  
Epoch 31914/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9603  
Epoch 31915/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0313 - accuracy: 0.9590  
Epoch 31916/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0324 - accuracy: 0.9593  
Epoch 31917/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9594  
Epoch 31918/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy: 0.9596  
Epoch 31919/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy: 0.9593  
Epoch 31920/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9592  
Epoch 31921/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy: 0.9607  
Epoch 31922/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy: 0.9608  
Epoch 31923/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0302 - accuracy: 0.9605  
Epoch 31924/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9597  
Epoch 31925/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy: 0.9593  
Epoch 31926/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0300 - accuracy: 0.9594  
Epoch 31927/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0304 - accuracy: 0.9593  
Epoch 31928/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy: 0.9606  
Epoch 31929/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy: 0.9598  
Epoch 31930/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9594  
Epoch 31931/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9590  
Epoch 31932/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9598  
Epoch 31933/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy: 0.9587  
Epoch 31934/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9595  
Epoch 31935/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy: 0.9595  
Epoch 31936/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9597  
Epoch 31937/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy: 0.9592  
Epoch 31938/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9604  
Epoch 31939/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy: 0.9597  
Epoch 31940/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy: 0.9593  
Epoch 31941/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9596  
Epoch 31942/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0302 - accuracy: 0.9599  
Epoch 31943/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9595  
Epoch 31944/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy: 0.9597  
Epoch 31945/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9594  
Epoch 31946/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9597  
Epoch 31947/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy: 0.9593  
Epoch 31948/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9614  
Epoch 31949/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9599  
Epoch 31950/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9598  
Epoch 31951/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy: 0.9597  
Epoch 31952/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9597  
Epoch 31953/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9600  
Epoch 31954/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy: 0.9595  
Epoch 31955/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy: 0.9599  
Epoch 31956/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9599  
Epoch 31957/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy: 0.9597  
Epoch 31958/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9594  
Epoch 31959/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy: 0.9603  
Epoch 31960/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9597  
Epoch 31961/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9600  
Epoch 31962/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9594  
Epoch 31963/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy: 0.9594  
Epoch 31964/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy: 0.9595  
Epoch 31965/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9598  
Epoch 31966/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9599  
Epoch 31967/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy: 0.9592  
Epoch 31968/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9603  
Epoch 31969/100000  
2/2 [=====] - 0s 138ms/step - loss: 0.0296 - accuracy:  
0.9597  
Epoch 31970/100000  
2/2 [=====] - 0s 126ms/step - loss: 0.0302 - accuracy:  
0.9592  
Epoch 31971/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0299 - accuracy:  
0.9591  
Epoch 31972/100000  
2/2 [=====] - 0s 128ms/step - loss: 0.0299 - accuracy:  
0.9601  
Epoch 31973/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0298 - accuracy:  
0.9600  
Epoch 31974/100000  
2/2 [=====] - 0s 132ms/step - loss: 0.0297 - accuracy:  
0.9588  
Epoch 31975/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0300 - accuracy:  
0.9610  
Epoch 31976/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0298 - accuracy:  
0.9593  
Epoch 31977/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9589  
Epoch 31978/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9594  
Epoch 31979/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9590  
Epoch 31980/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9600  
Epoch 31981/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0295 - accuracy:  
0.9586  
Epoch 31982/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy:  
0.9590  
Epoch 31983/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9588  
Epoch 31984/100000

2/2 [=====] - 0s 119ms/step - loss: 0.0296 - accuracy:  
0.9603  
Epoch 31985/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9594  
Epoch 31986/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy:  
0.9598  
Epoch 31987/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9595  
Epoch 31988/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9591  
Epoch 31989/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy:  
0.9593  
Epoch 31990/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0298 - accuracy:  
0.9600  
Epoch 31991/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy:  
0.9593  
Epoch 31992/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9592  
Epoch 31993/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy:  
0.9606  
Epoch 31994/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0296 - accuracy:  
0.9595  
Epoch 31995/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9603  
Epoch 31996/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9603  
Epoch 31997/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9589  
Epoch 31998/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy:  
0.9585  
Epoch 31999/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9594  
Epoch 32000/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9589  
Epoch 32001/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy: 0.9592  
Epoch 32002/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9602  
Epoch 32003/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0311 - accuracy: 0.9603  
Epoch 32004/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy: 0.9590  
Epoch 32005/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9606  
Epoch 32006/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9596  
Epoch 32007/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9596  
Epoch 32008/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy: 0.9594  
Epoch 32009/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0311 - accuracy: 0.9611  
Epoch 32010/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0302 - accuracy: 0.9598  
Epoch 32011/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9598  
Epoch 32012/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy: 0.9601  
Epoch 32013/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9594  
Epoch 32014/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy: 0.9601  
Epoch 32015/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0301 - accuracy: 0.9599  
Epoch 32016/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy: 0.9596  
Epoch 32017/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9590  
Epoch 32018/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9595  
Epoch 32019/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy: 0.9589  
Epoch 32020/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9598  
Epoch 32021/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0296 - accuracy: 0.9585  
Epoch 32022/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9598  
Epoch 32023/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9592  
Epoch 32024/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy: 0.9602  
Epoch 32025/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9598  
Epoch 32026/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy: 0.9597  
Epoch 32027/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy: 0.9598  
Epoch 32028/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9593  
Epoch 32029/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9595  
Epoch 32030/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9601  
Epoch 32031/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy: 0.9593  
Epoch 32032/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9590  
Epoch 32033/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0304 - accuracy:  
0.9596  
Epoch 32034/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9607  
Epoch 32035/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0309 - accuracy:  
0.9595  
Epoch 32036/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9600  
Epoch 32037/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0306 - accuracy:  
0.9601  
Epoch 32038/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9600  
Epoch 32039/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0317 - accuracy:  
0.9594  
Epoch 32040/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9603  
Epoch 32041/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0310 - accuracy:  
0.9592  
Epoch 32042/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9594  
Epoch 32043/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9595  
Epoch 32044/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9599  
Epoch 32045/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0309 - accuracy:  
0.9595  
Epoch 32046/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9596  
Epoch 32047/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9593  
Epoch 32048/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy: 0.9592  
Epoch 32049/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy: 0.9598  
Epoch 32050/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy: 0.9599  
Epoch 32051/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy: 0.9606  
Epoch 32052/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9599  
Epoch 32053/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9591  
Epoch 32054/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy: 0.9595  
Epoch 32055/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy: 0.9598  
Epoch 32056/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy: 0.9600  
Epoch 32057/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9590  
Epoch 32058/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy: 0.9599  
Epoch 32059/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy: 0.9596  
Epoch 32060/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy: 0.9598  
Epoch 32061/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9596  
Epoch 32062/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy: 0.9587  
Epoch 32063/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy: 0.9587  
Epoch 32064/100000



2/2 [=====] - 0s 117ms/step - loss: 0.0296 - accuracy:  
0.9590  
Epoch 32065/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9595  
Epoch 32066/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9594  
Epoch 32067/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9596  
Epoch 32068/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0307 - accuracy:  
0.9599  
Epoch 32069/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9591  
Epoch 32070/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9591  
Epoch 32071/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9605  
Epoch 32072/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9593  
Epoch 32073/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0302 - accuracy:  
0.9602  
Epoch 32074/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9597  
Epoch 32075/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9595  
Epoch 32076/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9594  
Epoch 32077/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9606  
Epoch 32078/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9596  
Epoch 32079/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9592  
Epoch 32080/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9589  
Epoch 32081/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9600  
Epoch 32082/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9591  
Epoch 32083/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9591  
Epoch 32084/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy:  
0.9595  
Epoch 32085/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9588  
Epoch 32086/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0296 - accuracy:  
0.9597  
Epoch 32087/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9594  
Epoch 32088/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9596  
Epoch 32089/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0299 - accuracy:  
0.9606  
Epoch 32090/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0301 - accuracy:  
0.9602  
Epoch 32091/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9592  
Epoch 32092/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9595  
Epoch 32093/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9586  
Epoch 32094/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0301 - accuracy:  
0.9596  
Epoch 32095/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy:  
0.9589  
Epoch 32096/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy: 0.9589  
Epoch 32097/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0312 - accuracy: 0.9596  
Epoch 32098/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy: 0.9587  
Epoch 32099/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy: 0.9601  
Epoch 32100/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy: 0.9592  
Epoch 32101/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy: 0.9597  
Epoch 32102/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy: 0.9594  
Epoch 32103/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9598  
Epoch 32104/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9596  
Epoch 32105/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy: 0.9598  
Epoch 32106/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9588  
Epoch 32107/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9595  
Epoch 32108/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0313 - accuracy: 0.9602  
Epoch 32109/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy: 0.9588  
Epoch 32110/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy: 0.9592  
Epoch 32111/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9600  
Epoch 32112/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9599  
Epoch 32113/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9595  
Epoch 32114/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9592  
Epoch 32115/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9590  
Epoch 32116/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9600  
Epoch 32117/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9593  
Epoch 32118/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9600  
Epoch 32119/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9589  
Epoch 32120/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9586  
Epoch 32121/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy:  
0.9590  
Epoch 32122/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9597  
Epoch 32123/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy:  
0.9595  
Epoch 32124/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9599  
Epoch 32125/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9603  
Epoch 32126/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9592  
Epoch 32127/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9595  
Epoch 32128/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9603  
Epoch 32129/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9598  
Epoch 32130/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9596  
Epoch 32131/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9603  
Epoch 32132/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9586  
Epoch 32133/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9610  
Epoch 32134/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9594  
Epoch 32135/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9591  
Epoch 32136/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9600  
Epoch 32137/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9611  
Epoch 32138/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0302 - accuracy:  
0.9596  
Epoch 32139/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9596  
Epoch 32140/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9594  
Epoch 32141/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9597  
Epoch 32142/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9597  
Epoch 32143/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9593  
Epoch 32144/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0305 - accuracy:  
0.9608  
Epoch 32145/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9597  
Epoch 32146/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0299 - accuracy:  
0.9600  
Epoch 32147/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9594  
Epoch 32148/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy:  
0.9592  
Epoch 32149/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9596  
Epoch 32150/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9593  
Epoch 32151/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9593  
Epoch 32152/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy:  
0.9597  
Epoch 32153/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9603  
Epoch 32154/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9588  
Epoch 32155/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9602  
Epoch 32156/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9595  
Epoch 32157/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9604  
Epoch 32158/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy:  
0.9591  
Epoch 32159/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9599  
Epoch 32160/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9598  
Epoch 32161/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9586  
Epoch 32162/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9586  
Epoch 32163/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9601  
Epoch 32164/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9599  
Epoch 32165/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0297 - accuracy:  
0.9599  
Epoch 32166/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9595  
Epoch 32167/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0297 - accuracy:  
0.9598  
Epoch 32168/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9593  
Epoch 32169/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9600  
Epoch 32170/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9591  
Epoch 32171/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9595  
Epoch 32172/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9597  
Epoch 32173/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9595  
Epoch 32174/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9598  
Epoch 32175/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9591  
Epoch 32176/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9604  
Epoch 32177/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0301 - accuracy:  
0.9588  
Epoch 32178/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0309 - accuracy:  
0.9597  
Epoch 32179/100000  
2/2 [=====] - 0s 144ms/step - loss: 0.0308 - accuracy:  
0.9594  
Epoch 32180/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0305 - accuracy:  
0.9592  
Epoch 32181/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0316 - accuracy:  
0.9594  
Epoch 32182/100000  
2/2 [=====] - 0s 127ms/step - loss: 0.0311 - accuracy:  
0.9589  
Epoch 32183/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0314 - accuracy:  
0.9603  
Epoch 32184/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9598  
Epoch 32185/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9598  
Epoch 32186/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0315 - accuracy:  
0.9594  
Epoch 32187/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9591  
Epoch 32188/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9606  
Epoch 32189/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9599  
Epoch 32190/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0299 - accuracy:  
0.9598  
Epoch 32191/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9586  
Epoch 32192/100000



2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy: 0.9593  
Epoch 32193/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0299 - accuracy: 0.9590  
Epoch 32194/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy: 0.9604  
Epoch 32195/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0296 - accuracy: 0.9597  
Epoch 32196/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy: 0.9597  
Epoch 32197/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy: 0.9595  
Epoch 32198/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy: 0.9597  
Epoch 32199/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy: 0.9598  
Epoch 32200/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy: 0.9600  
Epoch 32201/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9600  
Epoch 32202/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy: 0.9596  
Epoch 32203/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9597  
Epoch 32204/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy: 0.9599  
Epoch 32205/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy: 0.9600  
Epoch 32206/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy: 0.9602  
Epoch 32207/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9594  
Epoch 32208/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0299 - accuracy: 0.9605  
Epoch 32209/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy: 0.9591  
Epoch 32210/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy: 0.9590  
Epoch 32211/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy: 0.9601  
Epoch 32212/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy: 0.9597  
Epoch 32213/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy: 0.9591  
Epoch 32214/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0298 - accuracy: 0.9593  
Epoch 32215/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy: 0.9597  
Epoch 32216/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy: 0.9603  
Epoch 32217/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy: 0.9601  
Epoch 32218/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9597  
Epoch 32219/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9596  
Epoch 32220/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy: 0.9598  
Epoch 32221/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0308 - accuracy: 0.9601  
Epoch 32222/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9595  
Epoch 32223/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy: 0.9596  
Epoch 32224/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy: 0.9604  
Epoch 32225/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy: 0.9610  
Epoch 32226/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy: 0.9592  
Epoch 32227/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy: 0.9595  
Epoch 32228/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy: 0.9586  
Epoch 32229/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy: 0.9599  
Epoch 32230/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0316 - accuracy: 0.9593  
Epoch 32231/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0303 - accuracy: 0.9582  
Epoch 32232/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9589  
Epoch 32233/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0309 - accuracy: 0.9597  
Epoch 32234/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0303 - accuracy: 0.9608  
Epoch 32235/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9593  
Epoch 32236/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9600  
Epoch 32237/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy: 0.9599  
Epoch 32238/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy: 0.9590  
Epoch 32239/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9590  
Epoch 32240/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0309 - accuracy: 0.9597  
Epoch 32241/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy: 0.9595  
Epoch 32242/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0301 - accuracy: 0.9592  
Epoch 32243/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0298 - accuracy: 0.9603  
Epoch 32244/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9600  
Epoch 32245/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9596  
Epoch 32246/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9602  
Epoch 32247/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy: 0.9591  
Epoch 32248/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0306 - accuracy: 0.9586  
Epoch 32249/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy: 0.9607  
Epoch 32250/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy: 0.9605  
Epoch 32251/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy: 0.9598  
Epoch 32252/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9592  
Epoch 32253/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy: 0.9599  
Epoch 32254/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9601  
Epoch 32255/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy: 0.9584  
Epoch 32256/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
 0.9596  
 Epoch 32257/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
 0.9593  
 Epoch 32258/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0296 - accuracy:  
 0.9589  
 Epoch 32259/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
 0.9586  
 Epoch 32260/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
 0.9602  
 Epoch 32261/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy:  
 0.9600  
 Epoch 32262/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0307 - accuracy:  
 0.9596  
 Epoch 32263/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
 0.9603  
 Epoch 32264/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
 0.9595  
 Epoch 32265/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
 0.9601  
 Epoch 32266/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
 0.9597  
 Epoch 32267/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
 0.9599  
 Epoch 32268/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
 0.9600  
 Epoch 32269/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
 0.9602  
 Epoch 32270/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0298 - accuracy:  
 0.9591  
 Epoch 32271/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
 0.9595  
 Epoch 32272/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy: 0.9590  
Epoch 32273/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9604  
Epoch 32274/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy: 0.9609  
Epoch 32275/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy: 0.9600  
Epoch 32276/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0301 - accuracy: 0.9601  
Epoch 32277/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy: 0.9588  
Epoch 32278/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9602  
Epoch 32279/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy: 0.9586  
Epoch 32280/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy: 0.9611  
Epoch 32281/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0300 - accuracy: 0.9597  
Epoch 32282/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy: 0.9614  
Epoch 32283/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9592  
Epoch 32284/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy: 0.9593  
Epoch 32285/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy: 0.9591  
Epoch 32286/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy: 0.9596  
Epoch 32287/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy: 0.9596  
Epoch 32288/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0325 - accuracy:  
0.9590  
Epoch 32289/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0361 - accuracy:  
0.9601  
Epoch 32290/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0346 - accuracy:  
0.9600  
Epoch 32291/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0335 - accuracy:  
0.9598  
Epoch 32292/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0338 - accuracy:  
0.9595  
Epoch 32293/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0328 - accuracy:  
0.9593  
Epoch 32294/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9598  
Epoch 32295/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0314 - accuracy:  
0.9604  
Epoch 32296/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0313 - accuracy:  
0.9595  
Epoch 32297/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0318 - accuracy:  
0.9587  
Epoch 32298/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0321 - accuracy:  
0.9602  
Epoch 32299/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9592  
Epoch 32300/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0328 - accuracy:  
0.9586  
Epoch 32301/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9602  
Epoch 32302/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9592  
Epoch 32303/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9591  
Epoch 32304/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy:  
0.9608  
Epoch 32305/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9599  
Epoch 32306/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9599  
Epoch 32307/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9599  
Epoch 32308/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9600  
Epoch 32309/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9602  
Epoch 32310/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9601  
Epoch 32311/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9587  
Epoch 32312/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9597  
Epoch 32313/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9595  
Epoch 32314/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9597  
Epoch 32315/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9590  
Epoch 32316/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9600  
Epoch 32317/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9594  
Epoch 32318/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9592  
Epoch 32319/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy:  
0.9595  
Epoch 32320/100000



2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9594  
Epoch 32321/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9601  
Epoch 32322/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy:  
0.9593  
Epoch 32323/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9595  
Epoch 32324/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9599  
Epoch 32325/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9597  
Epoch 32326/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy:  
0.9587  
Epoch 32327/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9596  
Epoch 32328/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0299 - accuracy:  
0.9593  
Epoch 32329/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy:  
0.9593  
Epoch 32330/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9605  
Epoch 32331/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9605  
Epoch 32332/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9597  
Epoch 32333/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9598  
Epoch 32334/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9588  
Epoch 32335/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9598  
Epoch 32336/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9593  
Epoch 32337/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9597  
Epoch 32338/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9594  
Epoch 32339/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9597  
Epoch 32340/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0297 - accuracy:  
0.9594  
Epoch 32341/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9602  
Epoch 32342/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
0.9591  
Epoch 32343/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9593  
Epoch 32344/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9593  
Epoch 32345/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0296 - accuracy:  
0.9595  
Epoch 32346/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9593  
Epoch 32347/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9598  
Epoch 32348/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9592  
Epoch 32349/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9594  
Epoch 32350/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0294 - accuracy:  
0.9607  
Epoch 32351/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9599  
Epoch 32352/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9592  
Epoch 32353/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9596  
Epoch 32354/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9593  
Epoch 32355/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0309 - accuracy:  
0.9591  
Epoch 32356/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9601  
Epoch 32357/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9599  
Epoch 32358/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9598  
Epoch 32359/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0292 - accuracy:  
0.9591  
Epoch 32360/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9600  
Epoch 32361/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9600  
Epoch 32362/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9598  
Epoch 32363/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9587  
Epoch 32364/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9592  
Epoch 32365/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9592  
Epoch 32366/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9597  
Epoch 32367/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9604  
Epoch 32368/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9597  
Epoch 32369/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9602  
Epoch 32370/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9601  
Epoch 32371/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9594  
Epoch 32372/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9594  
Epoch 32373/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9594  
Epoch 32374/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0310 - accuracy:  
0.9603  
Epoch 32375/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9597  
Epoch 32376/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9602  
Epoch 32377/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0303 - accuracy:  
0.9600  
Epoch 32378/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9594  
Epoch 32379/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0304 - accuracy:  
0.9591  
Epoch 32380/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9592  
Epoch 32381/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9590  
Epoch 32382/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9603  
Epoch 32383/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9597  
Epoch 32384/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9594  
Epoch 32385/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9596  
Epoch 32386/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0303 - accuracy:  
0.9596  
Epoch 32387/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0305 - accuracy:  
0.9595  
Epoch 32388/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9596  
Epoch 32389/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0303 - accuracy:  
0.9599  
Epoch 32390/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9594  
Epoch 32391/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9597  
Epoch 32392/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9600  
Epoch 32393/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9596  
Epoch 32394/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9592  
Epoch 32395/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy:  
0.9591  
Epoch 32396/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9591  
Epoch 32397/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9593  
Epoch 32398/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9592  
Epoch 32399/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9586  
Epoch 32400/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9592  
Epoch 32401/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9591  
Epoch 32402/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9599  
Epoch 32403/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0304 - accuracy:  
0.9599  
Epoch 32404/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0311 - accuracy:  
0.9596  
Epoch 32405/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9598  
Epoch 32406/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy:  
0.9591  
Epoch 32407/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9600  
Epoch 32408/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9603  
Epoch 32409/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy:  
0.9602  
Epoch 32410/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9601  
Epoch 32411/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9598  
Epoch 32412/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9599  
Epoch 32413/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
0.9594  
Epoch 32414/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0299 - accuracy:  
0.9603  
Epoch 32415/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9585  
Epoch 32416/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9600  
Epoch 32417/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0300 - accuracy: 0.9610  
Epoch 32418/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy: 0.9598  
Epoch 32419/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy: 0.9598  
Epoch 32420/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0296 - accuracy: 0.9587  
Epoch 32421/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0295 - accuracy: 0.9590  
Epoch 32422/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9592  
Epoch 32423/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9593  
Epoch 32424/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy: 0.9593  
Epoch 32425/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0298 - accuracy: 0.9599  
Epoch 32426/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy: 0.9589  
Epoch 32427/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy: 0.9594  
Epoch 32428/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0300 - accuracy: 0.9601  
Epoch 32429/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0299 - accuracy: 0.9599  
Epoch 32430/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9590  
Epoch 32431/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0298 - accuracy: 0.9593  
Epoch 32432/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9604  
Epoch 32433/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9589  
Epoch 32434/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9597  
Epoch 32435/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9590  
Epoch 32436/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0319 - accuracy:  
0.9599  
Epoch 32437/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9597  
Epoch 32438/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9597  
Epoch 32439/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9603  
Epoch 32440/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9599  
Epoch 32441/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9594  
Epoch 32442/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0320 - accuracy:  
0.9601  
Epoch 32443/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0309 - accuracy:  
0.9590  
Epoch 32444/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9602  
Epoch 32445/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9592  
Epoch 32446/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9598  
Epoch 32447/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9587  
Epoch 32448/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9594  
Epoch 32449/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0301 - accuracy:  
0.9594  
Epoch 32450/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9596  
Epoch 32451/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9594  
Epoch 32452/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9593  
Epoch 32453/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9595  
Epoch 32454/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9597  
Epoch 32455/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9588  
Epoch 32456/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9589  
Epoch 32457/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0296 - accuracy:  
0.9592  
Epoch 32458/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0297 - accuracy:  
0.9600  
Epoch 32459/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0296 - accuracy:  
0.9593  
Epoch 32460/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9601  
Epoch 32461/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9590  
Epoch 32462/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0296 - accuracy:  
0.9593  
Epoch 32463/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9591  
Epoch 32464/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy: 0.9593  
Epoch 32465/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy: 0.9602  
Epoch 32466/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0299 - accuracy: 0.9597  
Epoch 32467/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy: 0.9599  
Epoch 32468/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy: 0.9594  
Epoch 32469/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9597  
Epoch 32470/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0311 - accuracy: 0.9597  
Epoch 32471/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0318 - accuracy: 0.9602  
Epoch 32472/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy: 0.9597  
Epoch 32473/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy: 0.9606  
Epoch 32474/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy: 0.9596  
Epoch 32475/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy: 0.9596  
Epoch 32476/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9597  
Epoch 32477/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy: 0.9604  
Epoch 32478/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy: 0.9593  
Epoch 32479/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0300 - accuracy: 0.9596  
Epoch 32480/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9590  
Epoch 32481/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0300 - accuracy:  
0.9601  
Epoch 32482/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9601  
Epoch 32483/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9602  
Epoch 32484/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9603  
Epoch 32485/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9592  
Epoch 32486/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9591  
Epoch 32487/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9601  
Epoch 32488/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9599  
Epoch 32489/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9601  
Epoch 32490/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9602  
Epoch 32491/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy:  
0.9594  
Epoch 32492/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy:  
0.9601  
Epoch 32493/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9599  
Epoch 32494/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9592  
Epoch 32495/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9590  
Epoch 32496/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0295 - accuracy:  
0.9590  
Epoch 32497/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9593  
Epoch 32498/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9594  
Epoch 32499/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0299 - accuracy:  
0.9604  
Epoch 32500/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9603  
Epoch 32501/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9595  
Epoch 32502/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0299 - accuracy:  
0.9598  
Epoch 32503/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9608  
Epoch 32504/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy:  
0.9600  
Epoch 32505/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9602  
Epoch 32506/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9597  
Epoch 32507/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0303 - accuracy:  
0.9590  
Epoch 32508/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9598  
Epoch 32509/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9602  
Epoch 32510/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9594  
Epoch 32511/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9591  
Epoch 32512/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9598  
 Epoch 32513/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9598  
 Epoch 32514/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy: 0.9602  
 Epoch 32515/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy: 0.9601  
 Epoch 32516/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9600  
 Epoch 32517/100000  
 2/2 [=====] - 0s 120ms/step - loss: 0.0301 - accuracy: 0.9594  
 Epoch 32518/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0298 - accuracy: 0.9598  
 Epoch 32519/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy: 0.9608  
 Epoch 32520/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy: 0.9591  
 Epoch 32521/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy: 0.9602  
 Epoch 32522/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0301 - accuracy: 0.9595  
 Epoch 32523/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9588  
 Epoch 32524/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9608  
 Epoch 32525/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy: 0.9610  
 Epoch 32526/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy: 0.9588  
 Epoch 32527/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy: 0.9586  
 Epoch 32528/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9589  
Epoch 32529/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9597  
Epoch 32530/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy: 0.9599  
Epoch 32531/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9594  
Epoch 32532/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy: 0.9604  
Epoch 32533/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy: 0.9593  
Epoch 32534/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy: 0.9589  
Epoch 32535/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9585  
Epoch 32536/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy: 0.9600  
Epoch 32537/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9597  
Epoch 32538/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9601  
Epoch 32539/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9601  
Epoch 32540/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9598  
Epoch 32541/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy: 0.9599  
Epoch 32542/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy: 0.9597  
Epoch 32543/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy: 0.9600  
Epoch 32544/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9599  
Epoch 32545/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9588  
Epoch 32546/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9599  
Epoch 32547/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9602  
Epoch 32548/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9597  
Epoch 32549/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9592  
Epoch 32550/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9593  
Epoch 32551/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
0.9586  
Epoch 32552/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9596  
Epoch 32553/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9591  
Epoch 32554/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9599  
Epoch 32555/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9601  
Epoch 32556/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9601  
Epoch 32557/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9607  
Epoch 32558/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9604  
Epoch 32559/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0300 - accuracy:  
0.9593  
Epoch 32560/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9598  
Epoch 32561/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9605  
Epoch 32562/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9606  
Epoch 32563/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9603  
Epoch 32564/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9597  
Epoch 32565/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9590  
Epoch 32566/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9597  
Epoch 32567/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9600  
Epoch 32568/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9594  
Epoch 32569/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy:  
0.9595  
Epoch 32570/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9593  
Epoch 32571/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9594  
Epoch 32572/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0302 - accuracy:  
0.9600  
Epoch 32573/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9598  
Epoch 32574/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9604  
Epoch 32575/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9593  
Epoch 32576/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9593  
Epoch 32577/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy: 0.9593  
Epoch 32578/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy: 0.9597  
Epoch 32579/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9597  
Epoch 32580/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9584  
Epoch 32581/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy: 0.9599  
Epoch 32582/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy: 0.9600  
Epoch 32583/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9601  
Epoch 32584/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0295 - accuracy: 0.9600  
Epoch 32585/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0300 - accuracy: 0.9610  
Epoch 32586/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0300 - accuracy: 0.9598  
Epoch 32587/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy: 0.9598  
Epoch 32588/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy: 0.9601  
Epoch 32589/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy: 0.9600  
Epoch 32590/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9594  
Epoch 32591/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy: 0.9590  
Epoch 32592/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9595  
Epoch 32593/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0310 - accuracy:  
0.9593  
Epoch 32594/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9599  
Epoch 32595/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0304 - accuracy:  
0.9596  
Epoch 32596/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9599  
Epoch 32597/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy:  
0.9598  
Epoch 32598/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9592  
Epoch 32599/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9591  
Epoch 32600/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0303 - accuracy:  
0.9611  
Epoch 32601/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9585  
Epoch 32602/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9594  
Epoch 32603/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9597  
Epoch 32604/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0294 - accuracy:  
0.9590  
Epoch 32605/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9590  
Epoch 32606/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9606  
Epoch 32607/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9590  
Epoch 32608/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9598  
Epoch 32609/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9596  
Epoch 32610/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9587  
Epoch 32611/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9596  
Epoch 32612/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9600  
Epoch 32613/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9591  
Epoch 32614/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9605  
Epoch 32615/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9595  
Epoch 32616/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy:  
0.9593  
Epoch 32617/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9590  
Epoch 32618/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9595  
Epoch 32619/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9600  
Epoch 32620/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9591  
Epoch 32621/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9600  
Epoch 32622/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9600  
Epoch 32623/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy:  
0.9592  
Epoch 32624/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0297 - accuracy: 0.9598  
Epoch 32625/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9587  
Epoch 32626/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9588  
Epoch 32627/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9592  
Epoch 32628/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy: 0.9600  
Epoch 32629/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9605  
Epoch 32630/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9599  
Epoch 32631/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy: 0.9597  
Epoch 32632/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy: 0.9594  
Epoch 32633/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy: 0.9600  
Epoch 32634/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy: 0.9589  
Epoch 32635/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy: 0.9591  
Epoch 32636/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9600  
Epoch 32637/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy: 0.9596  
Epoch 32638/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9603  
Epoch 32639/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy: 0.9588  
Epoch 32640/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9598  
Epoch 32641/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0298 - accuracy:  
0.9589  
Epoch 32642/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9597  
Epoch 32643/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9599  
Epoch 32644/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9594  
Epoch 32645/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9597  
Epoch 32646/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0312 - accuracy:  
0.9593  
Epoch 32647/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9596  
Epoch 32648/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0315 - accuracy:  
0.9597  
Epoch 32649/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9595  
Epoch 32650/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0317 - accuracy:  
0.9593  
Epoch 32651/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0317 - accuracy:  
0.9598  
Epoch 32652/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0311 - accuracy:  
0.9593  
Epoch 32653/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9595  
Epoch 32654/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0313 - accuracy:  
0.9593  
Epoch 32655/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9599  
Epoch 32656/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9595  
Epoch 32657/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy: 0.9594  
Epoch 32658/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9596  
Epoch 32659/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy: 0.9591  
Epoch 32660/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy: 0.9603  
Epoch 32661/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9597  
Epoch 32662/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9599  
Epoch 32663/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0294 - accuracy: 0.9601  
Epoch 32664/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy: 0.9595  
Epoch 32665/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy: 0.9593  
Epoch 32666/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy: 0.9597  
Epoch 32667/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy: 0.9596  
Epoch 32668/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy: 0.9599  
Epoch 32669/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy: 0.9602  
Epoch 32670/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9590  
Epoch 32671/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy: 0.9592  
Epoch 32672/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9593  
Epoch 32673/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9603  
Epoch 32674/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9592  
Epoch 32675/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9597  
Epoch 32676/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0304 - accuracy:  
0.9595  
Epoch 32677/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0317 - accuracy:  
0.9601  
Epoch 32678/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy:  
0.9598  
Epoch 32679/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0318 - accuracy:  
0.9589  
Epoch 32680/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9595  
Epoch 32681/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9593  
Epoch 32682/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9605  
Epoch 32683/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0309 - accuracy:  
0.9593  
Epoch 32684/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9602  
Epoch 32685/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9592  
Epoch 32686/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9601  
Epoch 32687/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9600  
Epoch 32688/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9600  
Epoch 32689/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0305 - accuracy:  
0.9617  
Epoch 32690/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9608  
Epoch 32691/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9588  
Epoch 32692/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9593  
Epoch 32693/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9603  
Epoch 32694/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9595  
Epoch 32695/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9600  
Epoch 32696/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9600  
Epoch 32697/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9597  
Epoch 32698/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0315 - accuracy:  
0.9601  
Epoch 32699/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9602  
Epoch 32700/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9599  
Epoch 32701/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9603  
Epoch 32702/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0310 - accuracy:  
0.9596  
Epoch 32703/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9591  
Epoch 32704/100000



2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy: 0.9597  
Epoch 32705/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy: 0.9595  
Epoch 32706/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy: 0.9597  
Epoch 32707/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy: 0.9597  
Epoch 32708/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9602  
Epoch 32709/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9593  
Epoch 32710/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0303 - accuracy: 0.9584  
Epoch 32711/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0327 - accuracy: 0.9591  
Epoch 32712/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy: 0.9600  
Epoch 32713/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9597  
Epoch 32714/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy: 0.9606  
Epoch 32715/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy: 0.9590  
Epoch 32716/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0331 - accuracy: 0.9594  
Epoch 32717/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy: 0.9601  
Epoch 32718/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0308 - accuracy: 0.9597  
Epoch 32719/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9599  
Epoch 32720/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy: 0.9587  
Epoch 32721/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy: 0.9595  
Epoch 32722/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9596  
Epoch 32723/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy: 0.9600  
Epoch 32724/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9596  
Epoch 32725/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9593  
Epoch 32726/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9595  
Epoch 32727/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy: 0.9602  
Epoch 32728/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9598  
Epoch 32729/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0293 - accuracy: 0.9590  
Epoch 32730/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0298 - accuracy: 0.9588  
Epoch 32731/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy: 0.9601  
Epoch 32732/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy: 0.9599  
Epoch 32733/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9604  
Epoch 32734/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9593  
Epoch 32735/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy: 0.9599  
Epoch 32736/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9591  
Epoch 32737/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9601  
Epoch 32738/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9605  
Epoch 32739/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9601  
Epoch 32740/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9601  
Epoch 32741/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9598  
Epoch 32742/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9597  
Epoch 32743/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0303 - accuracy:  
0.9594  
Epoch 32744/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9594  
Epoch 32745/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9589  
Epoch 32746/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9587  
Epoch 32747/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9590  
Epoch 32748/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9595  
Epoch 32749/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9593  
Epoch 32750/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9596  
Epoch 32751/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9598  
Epoch 32752/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9591  
Epoch 32753/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9596  
Epoch 32754/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0294 - accuracy:  
0.9587  
Epoch 32755/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0309 - accuracy:  
0.9593  
Epoch 32756/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9599  
Epoch 32757/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9599  
Epoch 32758/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9593  
Epoch 32759/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9593  
Epoch 32760/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9595  
Epoch 32761/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9602  
Epoch 32762/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9599  
Epoch 32763/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9587  
Epoch 32764/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9595  
Epoch 32765/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9596  
Epoch 32766/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9599  
Epoch 32767/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0311 - accuracy:  
0.9605  
Epoch 32768/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9603  
Epoch 32769/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy:  
0.9594  
Epoch 32770/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9603  
Epoch 32771/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9592  
Epoch 32772/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
0.9587  
Epoch 32773/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9601  
Epoch 32774/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0300 - accuracy:  
0.9598  
Epoch 32775/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9605  
Epoch 32776/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9587  
Epoch 32777/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9598  
Epoch 32778/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0300 - accuracy:  
0.9594  
Epoch 32779/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9595  
Epoch 32780/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9593  
Epoch 32781/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0304 - accuracy:  
0.9602  
Epoch 32782/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9604  
Epoch 32783/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9593  
Epoch 32784/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9593  
Epoch 32785/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0306 - accuracy:  
0.9599  
Epoch 32786/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9593  
Epoch 32787/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9594  
Epoch 32788/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0297 - accuracy:  
0.9594  
Epoch 32789/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9596  
Epoch 32790/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy:  
0.9590  
Epoch 32791/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9598  
Epoch 32792/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0300 - accuracy:  
0.9597  
Epoch 32793/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0297 - accuracy:  
0.9588  
Epoch 32794/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9596  
Epoch 32795/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9596  
Epoch 32796/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9585  
Epoch 32797/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9589  
Epoch 32798/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0294 - accuracy:  
0.9594  
Epoch 32799/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9595  
Epoch 32800/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
0.9590  
Epoch 32801/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy:  
0.9596  
Epoch 32802/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9601  
Epoch 32803/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0296 - accuracy:  
0.9596  
Epoch 32804/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9589  
Epoch 32805/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9592  
Epoch 32806/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy:  
0.9598  
Epoch 32807/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0292 - accuracy:  
0.9596  
Epoch 32808/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy:  
0.9594  
Epoch 32809/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0303 - accuracy:  
0.9602  
Epoch 32810/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9589  
Epoch 32811/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9596  
Epoch 32812/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9599  
Epoch 32813/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9600  
Epoch 32814/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9589  
Epoch 32815/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9593  
Epoch 32816/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9608  
Epoch 32817/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9596  
Epoch 32818/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy:  
0.9586  
Epoch 32819/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0306 - accuracy:  
0.9603  
Epoch 32820/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9591  
Epoch 32821/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9598  
Epoch 32822/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9588  
Epoch 32823/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9606  
Epoch 32824/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9597  
Epoch 32825/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9591  
Epoch 32826/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9598  
Epoch 32827/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9595  
Epoch 32828/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9602  
Epoch 32829/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9603  
Epoch 32830/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9602  
Epoch 32831/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9598  
Epoch 32832/100000



2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9597  
Epoch 32833/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9600  
Epoch 32834/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0324 - accuracy:  
0.9599  
Epoch 32835/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0324 - accuracy:  
0.9599  
Epoch 32836/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9596  
Epoch 32837/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0314 - accuracy:  
0.9593  
Epoch 32838/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9593  
Epoch 32839/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9593  
Epoch 32840/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9599  
Epoch 32841/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0314 - accuracy:  
0.9600  
Epoch 32842/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9601  
Epoch 32843/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9594  
Epoch 32844/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9601  
Epoch 32845/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0308 - accuracy:  
0.9600  
Epoch 32846/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9599  
Epoch 32847/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0298 - accuracy:  
0.9586  
Epoch 32848/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9592  
Epoch 32849/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9598  
Epoch 32850/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9594  
Epoch 32851/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9596  
Epoch 32852/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9599  
Epoch 32853/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0308 - accuracy:  
0.9597  
Epoch 32854/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9597  
Epoch 32855/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9592  
Epoch 32856/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9591  
Epoch 32857/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy:  
0.9600  
Epoch 32858/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9601  
Epoch 32859/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9602  
Epoch 32860/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9592  
Epoch 32861/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9598  
Epoch 32862/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy:  
0.9590  
Epoch 32863/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9590  
Epoch 32864/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9594  
Epoch 32865/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9589  
Epoch 32866/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9598  
Epoch 32867/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9603  
Epoch 32868/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9600  
Epoch 32869/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9594  
Epoch 32870/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9595  
Epoch 32871/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9592  
Epoch 32872/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9590  
Epoch 32873/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0310 - accuracy:  
0.9598  
Epoch 32874/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9599  
Epoch 32875/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9594  
Epoch 32876/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9592  
Epoch 32877/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9601  
Epoch 32878/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9587  
Epoch 32879/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0299 - accuracy:  
0.9601  
Epoch 32880/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9594  
Epoch 32881/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9596  
Epoch 32882/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9607  
Epoch 32883/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9594  
Epoch 32884/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9598  
Epoch 32885/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy:  
0.9606  
Epoch 32886/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9600  
Epoch 32887/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9593  
Epoch 32888/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9588  
Epoch 32889/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9594  
Epoch 32890/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0297 - accuracy:  
0.9594  
Epoch 32891/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9594  
Epoch 32892/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9600  
Epoch 32893/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9605  
Epoch 32894/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy:  
0.9602  
Epoch 32895/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9596  
Epoch 32896/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9599  
Epoch 32897/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9589  
Epoch 32898/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9595  
Epoch 32899/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9597  
Epoch 32900/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9591  
Epoch 32901/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9588  
Epoch 32902/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy:  
0.9600  
Epoch 32903/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9595  
Epoch 32904/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9595  
Epoch 32905/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0319 - accuracy:  
0.9596  
Epoch 32906/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9596  
Epoch 32907/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9601  
Epoch 32908/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9590  
Epoch 32909/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy:  
0.9603  
Epoch 32910/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9593  
Epoch 32911/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9598  
Epoch 32912/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0308 - accuracy:  
0.9591  
Epoch 32913/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy:  
0.9597  
Epoch 32914/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9602  
Epoch 32915/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0306 - accuracy:  
0.9602  
Epoch 32916/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9597  
Epoch 32917/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy:  
0.9602  
Epoch 32918/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9598  
Epoch 32919/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0306 - accuracy:  
0.9593  
Epoch 32920/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9610  
Epoch 32921/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9601  
Epoch 32922/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9590  
Epoch 32923/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9597  
Epoch 32924/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0306 - accuracy:  
0.9603  
Epoch 32925/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9596  
Epoch 32926/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9598  
Epoch 32927/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9601  
Epoch 32928/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9601  
Epoch 32929/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0300 - accuracy:  
0.9605  
Epoch 32930/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9589  
Epoch 32931/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9603  
Epoch 32932/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9593  
Epoch 32933/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9593  
Epoch 32934/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9596  
Epoch 32935/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0297 - accuracy:  
0.9610  
Epoch 32936/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9602  
Epoch 32937/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
0.9592  
Epoch 32938/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9599  
Epoch 32939/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9600  
Epoch 32940/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9597  
Epoch 32941/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9601  
Epoch 32942/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0297 - accuracy:  
0.9601  
Epoch 32943/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9583  
Epoch 32944/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy:  
0.9597  
Epoch 32945/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9598  
Epoch 32946/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9601  
Epoch 32947/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9593  
Epoch 32948/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9600  
Epoch 32949/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9604  
Epoch 32950/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9601  
Epoch 32951/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9598  
Epoch 32952/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9598  
Epoch 32953/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0307 - accuracy:  
0.9595  
Epoch 32954/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0302 - accuracy:  
0.9599  
Epoch 32955/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9599  
Epoch 32956/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9592  
Epoch 32957/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9593  
Epoch 32958/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9597  
Epoch 32959/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9591  
Epoch 32960/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9605  
Epoch 32961/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9593  
Epoch 32962/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9595  
Epoch 32963/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0304 - accuracy:  
0.9593  
Epoch 32964/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9598  
Epoch 32965/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9593  
Epoch 32966/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9585  
Epoch 32967/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0302 - accuracy:  
0.9595  
Epoch 32968/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9601  
Epoch 32969/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9594  
Epoch 32970/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9595  
Epoch 32971/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9599  
Epoch 32972/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0301 - accuracy:  
0.9598  
Epoch 32973/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9602  
Epoch 32974/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9605  
Epoch 32975/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9593  
Epoch 32976/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9594  
Epoch 32977/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy:  
0.9594  
Epoch 32978/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9593  
Epoch 32979/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0295 - accuracy:  
0.9592  
Epoch 32980/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9594  
Epoch 32981/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0299 - accuracy:  
0.9593  
Epoch 32982/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9599  
Epoch 32983/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9597  
Epoch 32984/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9599  
Epoch 32985/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9604  
Epoch 32986/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy:  
0.9591  
Epoch 32987/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9594  
Epoch 32988/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0294 - accuracy:  
0.9593  
Epoch 32989/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0293 - accuracy:  
0.9594  
Epoch 32990/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9592  
Epoch 32991/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9590  
Epoch 32992/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy:  
0.9602  
Epoch 32993/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy:  
0.9593  
Epoch 32994/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy:  
0.9598  
Epoch 32995/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9604  
Epoch 32996/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9605  
Epoch 32997/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9586  
Epoch 32998/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9595  
Epoch 32999/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9599  
Epoch 33000/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9604  
Epoch 33001/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9589  
Epoch 33002/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9604  
Epoch 33003/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9600  
Epoch 33004/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9592  
Epoch 33005/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9590  
Epoch 33006/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy:  
0.9600  
Epoch 33007/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9592  
Epoch 33008/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy: 0.9596  
Epoch 33009/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9596  
Epoch 33010/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy: 0.9595  
Epoch 33011/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0305 - accuracy: 0.9609  
Epoch 33012/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9604  
Epoch 33013/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy: 0.9593  
Epoch 33014/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy: 0.9591  
Epoch 33015/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy: 0.9596  
Epoch 33016/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy: 0.9602  
Epoch 33017/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy: 0.9600  
Epoch 33018/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0296 - accuracy: 0.9596  
Epoch 33019/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy: 0.9591  
Epoch 33020/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9590  
Epoch 33021/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy: 0.9596  
Epoch 33022/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy: 0.9597  
Epoch 33023/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy: 0.9595  
Epoch 33024/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9606  
Epoch 33025/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9592  
Epoch 33026/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
0.9582  
Epoch 33027/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9598  
Epoch 33028/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9588  
Epoch 33029/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9592  
Epoch 33030/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9596  
Epoch 33031/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9597  
Epoch 33032/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9610  
Epoch 33033/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9597  
Epoch 33034/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy:  
0.9594  
Epoch 33035/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9598  
Epoch 33036/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy:  
0.9600  
Epoch 33037/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9588  
Epoch 33038/100000  
2/2 [=====] - 0s 127ms/step - loss: 0.0321 - accuracy:  
0.9597  
Epoch 33039/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9613  
Epoch 33040/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy: 0.9589  
Epoch 33041/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0317 - accuracy: 0.9592  
Epoch 33042/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9591  
Epoch 33043/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy: 0.9601  
Epoch 33044/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy: 0.9594  
Epoch 33045/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0306 - accuracy: 0.9603  
Epoch 33046/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy: 0.9594  
Epoch 33047/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy: 0.9598  
Epoch 33048/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9601  
Epoch 33049/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy: 0.9606  
Epoch 33050/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy: 0.9597  
Epoch 33051/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0295 - accuracy: 0.9594  
Epoch 33052/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy: 0.9598  
Epoch 33053/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9600  
Epoch 33054/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9594  
Epoch 33055/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy: 0.9599  
Epoch 33056/100000

2/2 [=====] - 0s 119ms/step - loss: 0.0296 - accuracy: 0.9593  
Epoch 33057/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0298 - accuracy: 0.9604  
Epoch 33058/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy: 0.9596  
Epoch 33059/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9595  
Epoch 33060/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9598  
Epoch 33061/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy: 0.9594  
Epoch 33062/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9596  
Epoch 33063/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9600  
Epoch 33064/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9598  
Epoch 33065/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9599  
Epoch 33066/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy: 0.9587  
Epoch 33067/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0302 - accuracy: 0.9608  
Epoch 33068/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy: 0.9604  
Epoch 33069/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0301 - accuracy: 0.9596  
Epoch 33070/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy: 0.9604  
Epoch 33071/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9602  
Epoch 33072/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9591  
Epoch 33073/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9592  
Epoch 33074/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9607  
Epoch 33075/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9599  
Epoch 33076/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9589  
Epoch 33077/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9599  
Epoch 33078/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0336 - accuracy:  
0.9595  
Epoch 33079/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0323 - accuracy:  
0.9599  
Epoch 33080/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0317 - accuracy:  
0.9599  
Epoch 33081/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0309 - accuracy:  
0.9590  
Epoch 33082/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9601  
Epoch 33083/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9587  
Epoch 33084/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0313 - accuracy:  
0.9597  
Epoch 33085/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9594  
Epoch 33086/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9608  
Epoch 33087/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9601  
Epoch 33088/100000



2/2 [=====] - 0s 113ms/step - loss: 0.0318 - accuracy:  
0.9605  
Epoch 33089/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9602  
Epoch 33090/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9604  
Epoch 33091/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9594  
Epoch 33092/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9595  
Epoch 33093/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0313 - accuracy:  
0.9601  
Epoch 33094/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0310 - accuracy:  
0.9601  
Epoch 33095/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9596  
Epoch 33096/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9597  
Epoch 33097/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9603  
Epoch 33098/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9592  
Epoch 33099/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9600  
Epoch 33100/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9602  
Epoch 33101/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9599  
Epoch 33102/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9585  
Epoch 33103/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9601  
Epoch 33104/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9596  
Epoch 33105/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9603  
Epoch 33106/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9586  
Epoch 33107/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9596  
Epoch 33108/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0309 - accuracy:  
0.9606  
Epoch 33109/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9598  
Epoch 33110/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9598  
Epoch 33111/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9589  
Epoch 33112/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9592  
Epoch 33113/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9591  
Epoch 33114/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9596  
Epoch 33115/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9603  
Epoch 33116/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9596  
Epoch 33117/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9587  
Epoch 33118/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9591  
Epoch 33119/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9598  
Epoch 33120/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy: 0.9598  
Epoch 33121/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy: 0.9609  
Epoch 33122/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0294 - accuracy: 0.9587  
Epoch 33123/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy: 0.9598  
Epoch 33124/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9602  
Epoch 33125/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy: 0.9594  
Epoch 33126/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0294 - accuracy: 0.9593  
Epoch 33127/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0294 - accuracy: 0.9602  
Epoch 33128/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy: 0.9594  
Epoch 33129/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9607  
Epoch 33130/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9597  
Epoch 33131/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy: 0.9601  
Epoch 33132/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9595  
Epoch 33133/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy: 0.9600  
Epoch 33134/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy: 0.9595  
Epoch 33135/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9602  
Epoch 33136/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy:  
0.9597  
Epoch 33137/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9606  
Epoch 33138/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0299 - accuracy:  
0.9591  
Epoch 33139/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9598  
Epoch 33140/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9596  
Epoch 33141/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9596  
Epoch 33142/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0310 - accuracy:  
0.9594  
Epoch 33143/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9594  
Epoch 33144/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9600  
Epoch 33145/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9604  
Epoch 33146/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9597  
Epoch 33147/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9596  
Epoch 33148/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9577  
Epoch 33149/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9592  
Epoch 33150/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0300 - accuracy:  
0.9594  
Epoch 33151/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0302 - accuracy:  
0.9597  
Epoch 33152/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy: 0.9593  
Epoch 33153/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9593  
Epoch 33154/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy: 0.9598  
Epoch 33155/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9598  
Epoch 33156/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy: 0.9597  
Epoch 33157/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy: 0.9601  
Epoch 33158/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy: 0.9600  
Epoch 33159/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy: 0.9600  
Epoch 33160/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9602  
Epoch 33161/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9589  
Epoch 33162/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9595  
Epoch 33163/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0292 - accuracy: 0.9597  
Epoch 33164/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy: 0.9595  
Epoch 33165/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0297 - accuracy: 0.9599  
Epoch 33166/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9591  
Epoch 33167/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy: 0.9589  
Epoch 33168/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9596  
Epoch 33169/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9591  
Epoch 33170/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9590  
Epoch 33171/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0330 - accuracy:  
0.9596  
Epoch 33172/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9599  
Epoch 33173/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0319 - accuracy:  
0.9594  
Epoch 33174/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0331 - accuracy:  
0.9608  
Epoch 33175/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9589  
Epoch 33176/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0324 - accuracy:  
0.9597  
Epoch 33177/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9597  
Epoch 33178/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9592  
Epoch 33179/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9594  
Epoch 33180/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9588  
Epoch 33181/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0306 - accuracy:  
0.9596  
Epoch 33182/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9590  
Epoch 33183/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0310 - accuracy:  
0.9590  
Epoch 33184/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy: 0.9592  
Epoch 33185/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9601  
Epoch 33186/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy: 0.9592  
Epoch 33187/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9592  
Epoch 33188/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy: 0.9595  
Epoch 33189/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9601  
Epoch 33190/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy: 0.9601  
Epoch 33191/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy: 0.9595  
Epoch 33192/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9593  
Epoch 33193/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy: 0.9590  
Epoch 33194/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy: 0.9588  
Epoch 33195/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy: 0.9600  
Epoch 33196/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy: 0.9604  
Epoch 33197/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9606  
Epoch 33198/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy: 0.9592  
Epoch 33199/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy: 0.9600  
Epoch 33200/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9597  
Epoch 33201/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9596  
Epoch 33202/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9599  
Epoch 33203/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9593  
Epoch 33204/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0312 - accuracy:  
0.9605  
Epoch 33205/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9595  
Epoch 33206/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9596  
Epoch 33207/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9599  
Epoch 33208/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9603  
Epoch 33209/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9593  
Epoch 33210/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9602  
Epoch 33211/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9602  
Epoch 33212/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9605  
Epoch 33213/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy:  
0.9586  
Epoch 33214/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0295 - accuracy:  
0.9596  
Epoch 33215/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9605  
Epoch 33216/100000



2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9601  
Epoch 33217/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9612  
Epoch 33218/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9587  
Epoch 33219/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9591  
Epoch 33220/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9596  
Epoch 33221/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9601  
Epoch 33222/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9601  
Epoch 33223/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0330 - accuracy:  
0.9591  
Epoch 33224/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9602  
Epoch 33225/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9596  
Epoch 33226/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9595  
Epoch 33227/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0320 - accuracy:  
0.9601  
Epoch 33228/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0314 - accuracy:  
0.9596  
Epoch 33229/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9592  
Epoch 33230/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9594  
Epoch 33231/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9596  
Epoch 33232/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9594  
Epoch 33233/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9592  
Epoch 33234/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9598  
Epoch 33235/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9598  
Epoch 33236/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9606  
Epoch 33237/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9593  
Epoch 33238/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9602  
Epoch 33239/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9589  
Epoch 33240/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9595  
Epoch 33241/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9603  
Epoch 33242/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9596  
Epoch 33243/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy:  
0.9598  
Epoch 33244/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9595  
Epoch 33245/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy:  
0.9594  
Epoch 33246/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9592  
Epoch 33247/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9594  
Epoch 33248/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy: 0.9597  
Epoch 33249/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy: 0.9598  
Epoch 33250/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy: 0.9593  
Epoch 33251/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy: 0.9593  
Epoch 33252/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0303 - accuracy: 0.9596  
Epoch 33253/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy: 0.9591  
Epoch 33254/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy: 0.9606  
Epoch 33255/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0299 - accuracy: 0.9592  
Epoch 33256/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9593  
Epoch 33257/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0314 - accuracy: 0.9596  
Epoch 33258/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9598  
Epoch 33259/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0312 - accuracy: 0.9603  
Epoch 33260/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy: 0.9589  
Epoch 33261/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy: 0.9594  
Epoch 33262/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy: 0.9601  
Epoch 33263/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9600  
Epoch 33264/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9593  
Epoch 33265/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9590  
Epoch 33266/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9601  
Epoch 33267/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9595  
Epoch 33268/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9601  
Epoch 33269/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9600  
Epoch 33270/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9592  
Epoch 33271/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9606  
Epoch 33272/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy:  
0.9598  
Epoch 33273/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9594  
Epoch 33274/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9598  
Epoch 33275/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy:  
0.9612  
Epoch 33276/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9605  
Epoch 33277/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9596  
Epoch 33278/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9591  
Epoch 33279/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9592  
Epoch 33280/100000

2/2 [=====] - 0s 124ms/step - loss: 0.0306 - accuracy:  
0.9598  
Epoch 33281/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0310 - accuracy:  
0.9601  
Epoch 33282/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9604  
Epoch 33283/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9592  
Epoch 33284/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9600  
Epoch 33285/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0303 - accuracy:  
0.9602  
Epoch 33286/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9586  
Epoch 33287/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9599  
Epoch 33288/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9608  
Epoch 33289/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0310 - accuracy:  
0.9596  
Epoch 33290/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0302 - accuracy:  
0.9598  
Epoch 33291/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9594  
Epoch 33292/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9596  
Epoch 33293/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9603  
Epoch 33294/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9594  
Epoch 33295/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9597  
Epoch 33296/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9600  
Epoch 33297/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9599  
Epoch 33298/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9587  
Epoch 33299/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9589  
Epoch 33300/100000  
2/2 [=====] - 0s 112ms/step - loss: 0.0297 - accuracy:  
0.9598  
Epoch 33301/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9595  
Epoch 33302/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy:  
0.9592  
Epoch 33303/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9592  
Epoch 33304/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9589  
Epoch 33305/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9601  
Epoch 33306/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9596  
Epoch 33307/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0298 - accuracy:  
0.9599  
Epoch 33308/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9603  
Epoch 33309/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9601  
Epoch 33310/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9596  
Epoch 33311/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9593  
Epoch 33312/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9605  
Epoch 33313/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy:  
0.9598  
Epoch 33314/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9590  
Epoch 33315/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9586  
Epoch 33316/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9609  
Epoch 33317/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9596  
Epoch 33318/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9593  
Epoch 33319/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0307 - accuracy:  
0.9605  
Epoch 33320/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0315 - accuracy:  
0.9589  
Epoch 33321/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9590  
Epoch 33322/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9594  
Epoch 33323/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9602  
Epoch 33324/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9586  
Epoch 33325/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9592  
Epoch 33326/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9593  
Epoch 33327/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9593  
Epoch 33328/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9602  
Epoch 33329/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9599  
Epoch 33330/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9593  
Epoch 33331/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9598  
Epoch 33332/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9593  
Epoch 33333/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0311 - accuracy:  
0.9596  
Epoch 33334/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9599  
Epoch 33335/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9596  
Epoch 33336/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9596  
Epoch 33337/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9600  
Epoch 33338/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9610  
Epoch 33339/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9601  
Epoch 33340/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9592  
Epoch 33341/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9594  
Epoch 33342/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9598  
Epoch 33343/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9602  
Epoch 33344/100000



2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9589  
Epoch 33345/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9593  
Epoch 33346/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9608  
Epoch 33347/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9595  
Epoch 33348/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9596  
Epoch 33349/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9591  
Epoch 33350/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9601  
Epoch 33351/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9593  
Epoch 33352/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9592  
Epoch 33353/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9595  
Epoch 33354/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0300 - accuracy:  
0.9592  
Epoch 33355/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9601  
Epoch 33356/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9589  
Epoch 33357/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9596  
Epoch 33358/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0310 - accuracy:  
0.9600  
Epoch 33359/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9603  
Epoch 33360/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9607  
Epoch 33361/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9604  
Epoch 33362/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9599  
Epoch 33363/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0298 - accuracy:  
0.9600  
Epoch 33364/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0297 - accuracy:  
0.9597  
Epoch 33365/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0304 - accuracy:  
0.9606  
Epoch 33366/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9603  
Epoch 33367/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9595  
Epoch 33368/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9595  
Epoch 33369/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0297 - accuracy:  
0.9596  
Epoch 33370/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9595  
Epoch 33371/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9590  
Epoch 33372/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9600  
Epoch 33373/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9597  
Epoch 33374/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9601  
Epoch 33375/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9595  
Epoch 33376/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9591  
Epoch 33377/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9593  
Epoch 33378/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9599  
Epoch 33379/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9588  
Epoch 33380/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9603  
Epoch 33381/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9591  
Epoch 33382/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0305 - accuracy:  
0.9593  
Epoch 33383/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9590  
Epoch 33384/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9596  
Epoch 33385/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9601  
Epoch 33386/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy:  
0.9588  
Epoch 33387/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9597  
Epoch 33388/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9596  
Epoch 33389/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9589  
Epoch 33390/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9598  
Epoch 33391/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9603  
Epoch 33392/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9601  
Epoch 33393/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0305 - accuracy:  
0.9605  
Epoch 33394/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9599  
Epoch 33395/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0296 - accuracy:  
0.9602  
Epoch 33396/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9600  
Epoch 33397/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
0.9588  
Epoch 33398/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9591  
Epoch 33399/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9594  
Epoch 33400/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9592  
Epoch 33401/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9607  
Epoch 33402/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9591  
Epoch 33403/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0311 - accuracy:  
0.9602  
Epoch 33404/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9602  
Epoch 33405/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9594  
Epoch 33406/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9602  
Epoch 33407/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9591  
Epoch 33408/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0312 - accuracy:  
0.9598  
Epoch 33409/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9601  
Epoch 33410/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9600  
Epoch 33411/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9596  
Epoch 33412/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9592  
Epoch 33413/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9593  
Epoch 33414/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9600  
Epoch 33415/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9591  
Epoch 33416/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy:  
0.9589  
Epoch 33417/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9592  
Epoch 33418/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0302 - accuracy:  
0.9609  
Epoch 33419/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9596  
Epoch 33420/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9602  
Epoch 33421/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9593  
Epoch 33422/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
0.9595  
Epoch 33423/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9608  
Epoch 33424/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9590  
Epoch 33425/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0299 - accuracy:  
0.9598  
Epoch 33426/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0298 - accuracy:  
0.9596  
Epoch 33427/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0305 - accuracy:  
0.9598  
Epoch 33428/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9591  
Epoch 33429/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0291 - accuracy:  
0.9588  
Epoch 33430/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9588  
Epoch 33431/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy:  
0.9592  
Epoch 33432/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy:  
0.9604  
Epoch 33433/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9597  
Epoch 33434/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0296 - accuracy:  
0.9603  
Epoch 33435/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy:  
0.9600  
Epoch 33436/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9595  
Epoch 33437/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9587  
Epoch 33438/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9594  
Epoch 33439/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9609  
Epoch 33440/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9593  
Epoch 33441/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9594  
Epoch 33442/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9592  
Epoch 33443/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9595  
Epoch 33444/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9596  
Epoch 33445/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9595  
Epoch 33446/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9599  
Epoch 33447/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9593  
Epoch 33448/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9596  
Epoch 33449/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0302 - accuracy:  
0.9600  
Epoch 33450/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9601  
Epoch 33451/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9603  
Epoch 33452/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9596  
Epoch 33453/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9596  
Epoch 33454/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9589  
Epoch 33455/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9590  
Epoch 33456/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0295 - accuracy: 0.9599  
Epoch 33457/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy: 0.9592  
Epoch 33458/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy: 0.9598  
Epoch 33459/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9586  
Epoch 33460/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy: 0.9594  
Epoch 33461/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9597  
Epoch 33462/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy: 0.9595  
Epoch 33463/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy: 0.9599  
Epoch 33464/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy: 0.9610  
Epoch 33465/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9600  
Epoch 33466/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9609  
Epoch 33467/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0293 - accuracy: 0.9590  
Epoch 33468/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0294 - accuracy: 0.9592  
Epoch 33469/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0293 - accuracy: 0.9596  
Epoch 33470/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0295 - accuracy: 0.9599  
Epoch 33471/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy: 0.9598  
Epoch 33472/100000



2/2 [=====] - 0s 118ms/step - loss: 0.0302 - accuracy:  
0.9612  
Epoch 33473/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9596  
Epoch 33474/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0304 - accuracy:  
0.9597  
Epoch 33475/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9587  
Epoch 33476/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9597  
Epoch 33477/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9585  
Epoch 33478/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9610  
Epoch 33479/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9595  
Epoch 33480/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9597  
Epoch 33481/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9594  
Epoch 33482/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9601  
Epoch 33483/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9602  
Epoch 33484/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9600  
Epoch 33485/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0302 - accuracy:  
0.9597  
Epoch 33486/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy:  
0.9593  
Epoch 33487/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9587  
Epoch 33488/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9603  
Epoch 33489/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9598  
Epoch 33490/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9591  
Epoch 33491/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9590  
Epoch 33492/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9594  
Epoch 33493/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9600  
Epoch 33494/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9595  
Epoch 33495/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9607  
Epoch 33496/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9588  
Epoch 33497/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9598  
Epoch 33498/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9603  
Epoch 33499/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9607  
Epoch 33500/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0302 - accuracy:  
0.9595  
Epoch 33501/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9598  
Epoch 33502/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0306 - accuracy:  
0.9591  
Epoch 33503/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9608  
Epoch 33504/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9603  
Epoch 33505/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy:  
0.9596  
Epoch 33506/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0297 - accuracy:  
0.9594  
Epoch 33507/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9602  
Epoch 33508/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9596  
Epoch 33509/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9593  
Epoch 33510/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9593  
Epoch 33511/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0304 - accuracy:  
0.9607  
Epoch 33512/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9591  
Epoch 33513/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9589  
Epoch 33514/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9600  
Epoch 33515/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0308 - accuracy:  
0.9609  
Epoch 33516/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9607  
Epoch 33517/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy:  
0.9605  
Epoch 33518/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9591  
Epoch 33519/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9599  
Epoch 33520/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9593  
Epoch 33521/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9606  
Epoch 33522/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9593  
Epoch 33523/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9603  
Epoch 33524/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9594  
Epoch 33525/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy:  
0.9595  
Epoch 33526/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0297 - accuracy:  
0.9588  
Epoch 33527/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9595  
Epoch 33528/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy:  
0.9592  
Epoch 33529/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9589  
Epoch 33530/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9598  
Epoch 33531/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9592  
Epoch 33532/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9593  
Epoch 33533/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
0.9592  
Epoch 33534/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9594  
Epoch 33535/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9602  
Epoch 33536/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9605  
Epoch 33537/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9594  
Epoch 33538/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9597  
Epoch 33539/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9601  
Epoch 33540/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9594  
Epoch 33541/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9599  
Epoch 33542/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9590  
Epoch 33543/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9591  
Epoch 33544/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0318 - accuracy:  
0.9598  
Epoch 33545/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy:  
0.9603  
Epoch 33546/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9594  
Epoch 33547/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9587  
Epoch 33548/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0325 - accuracy:  
0.9592  
Epoch 33549/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9590  
Epoch 33550/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy:  
0.9589  
Epoch 33551/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy:  
0.9592  
Epoch 33552/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9603  
Epoch 33553/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0315 - accuracy:  
0.9596  
Epoch 33554/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9606  
Epoch 33555/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9594  
Epoch 33556/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0311 - accuracy:  
0.9594  
Epoch 33557/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9596  
Epoch 33558/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9602  
Epoch 33559/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9607  
Epoch 33560/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9595  
Epoch 33561/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9598  
Epoch 33562/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9587  
Epoch 33563/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9605  
Epoch 33564/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0299 - accuracy:  
0.9600  
Epoch 33565/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9591  
Epoch 33566/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0300 - accuracy:  
0.9591  
Epoch 33567/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9604  
Epoch 33568/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9600  
Epoch 33569/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9603  
Epoch 33570/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0299 - accuracy:  
0.9590  
Epoch 33571/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9604  
Epoch 33572/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9603  
Epoch 33573/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9593  
Epoch 33574/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9604  
Epoch 33575/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9590  
Epoch 33576/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9600  
Epoch 33577/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy:  
0.9596  
Epoch 33578/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9602  
Epoch 33579/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9601  
Epoch 33580/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9599  
Epoch 33581/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9590  
Epoch 33582/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0297 - accuracy:  
0.9596  
Epoch 33583/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9602  
Epoch 33584/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0299 - accuracy:  
0.9596  
Epoch 33585/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9592  
Epoch 33586/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0302 - accuracy:  
0.9600  
Epoch 33587/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9593  
Epoch 33588/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9597  
Epoch 33589/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9602  
Epoch 33590/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9596  
Epoch 33591/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9594  
Epoch 33592/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9596  
Epoch 33593/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9604  
Epoch 33594/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9597  
Epoch 33595/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9600  
Epoch 33596/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9600  
Epoch 33597/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9597  
Epoch 33598/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9598  
Epoch 33599/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9589  
Epoch 33600/100000



2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9603  
Epoch 33601/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9594  
Epoch 33602/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9596  
Epoch 33603/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0298 - accuracy:  
0.9599  
Epoch 33604/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0298 - accuracy:  
0.9595  
Epoch 33605/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy:  
0.9597  
Epoch 33606/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9597  
Epoch 33607/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9591  
Epoch 33608/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9590  
Epoch 33609/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9601  
Epoch 33610/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9587  
Epoch 33611/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9591  
Epoch 33612/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9593  
Epoch 33613/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9609  
Epoch 33614/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9592  
Epoch 33615/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9598  
Epoch 33616/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9593  
Epoch 33617/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0305 - accuracy: 0.9594  
Epoch 33618/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9593  
Epoch 33619/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy: 0.9592  
Epoch 33620/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy: 0.9601  
Epoch 33621/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0297 - accuracy: 0.9599  
Epoch 33622/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0301 - accuracy: 0.9596  
Epoch 33623/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy: 0.9598  
Epoch 33624/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy: 0.9592  
Epoch 33625/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9596  
Epoch 33626/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0294 - accuracy: 0.9595  
Epoch 33627/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0301 - accuracy: 0.9600  
Epoch 33628/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy: 0.9594  
Epoch 33629/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy: 0.9603  
Epoch 33630/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0300 - accuracy: 0.9594  
Epoch 33631/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy: 0.9598  
Epoch 33632/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy: 0.9588  
Epoch 33633/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy: 0.9598  
Epoch 33634/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy: 0.9597  
Epoch 33635/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy: 0.9589  
Epoch 33636/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy: 0.9599  
Epoch 33637/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy: 0.9606  
Epoch 33638/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9596  
Epoch 33639/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy: 0.9603  
Epoch 33640/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9598  
Epoch 33641/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy: 0.9593  
Epoch 33642/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9594  
Epoch 33643/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy: 0.9601  
Epoch 33644/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy: 0.9594  
Epoch 33645/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9604  
Epoch 33646/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy: 0.9587  
Epoch 33647/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy: 0.9599  
Epoch 33648/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9596  
Epoch 33649/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0296 - accuracy:  
0.9600  
Epoch 33650/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9593  
Epoch 33651/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9599  
Epoch 33652/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0306 - accuracy:  
0.9603  
Epoch 33653/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9597  
Epoch 33654/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9595  
Epoch 33655/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9596  
Epoch 33656/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0311 - accuracy:  
0.9598  
Epoch 33657/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9593  
Epoch 33658/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9598  
Epoch 33659/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9591  
Epoch 33660/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9590  
Epoch 33661/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9601  
Epoch 33662/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy:  
0.9603  
Epoch 33663/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9593  
Epoch 33664/100000

2/2 [=====] - 0s 120ms/step - loss: 0.0299 - accuracy: 0.9584  
Epoch 33665/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy: 0.9602  
Epoch 33666/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9599  
Epoch 33667/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy: 0.9598  
Epoch 33668/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy: 0.9604  
Epoch 33669/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy: 0.9587  
Epoch 33670/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9597  
Epoch 33671/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy: 0.9596  
Epoch 33672/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy: 0.9597  
Epoch 33673/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy: 0.9589  
Epoch 33674/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0309 - accuracy: 0.9595  
Epoch 33675/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0316 - accuracy: 0.9596  
Epoch 33676/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0336 - accuracy: 0.9588  
Epoch 33677/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0327 - accuracy: 0.9597  
Epoch 33678/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0326 - accuracy: 0.9592  
Epoch 33679/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy: 0.9598  
Epoch 33680/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9598  
Epoch 33681/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0321 - accuracy:  
0.9596  
Epoch 33682/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9593  
Epoch 33683/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9592  
Epoch 33684/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0314 - accuracy:  
0.9590  
Epoch 33685/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0304 - accuracy:  
0.9593  
Epoch 33686/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9608  
Epoch 33687/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0307 - accuracy:  
0.9597  
Epoch 33688/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy:  
0.9592  
Epoch 33689/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9596  
Epoch 33690/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9606  
Epoch 33691/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9589  
Epoch 33692/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9597  
Epoch 33693/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9598  
Epoch 33694/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9601  
Epoch 33695/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9599  
Epoch 33696/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9595  
Epoch 33697/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9595  
Epoch 33698/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0298 - accuracy:  
0.9598  
Epoch 33699/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0306 - accuracy:  
0.9596  
Epoch 33700/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9604  
Epoch 33701/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9600  
Epoch 33702/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9592  
Epoch 33703/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9597  
Epoch 33704/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9589  
Epoch 33705/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9606  
Epoch 33706/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0300 - accuracy:  
0.9602  
Epoch 33707/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0297 - accuracy:  
0.9592  
Epoch 33708/100000  
2/2 [=====] - 0s 129ms/step - loss: 0.0300 - accuracy:  
0.9597  
Epoch 33709/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0301 - accuracy:  
0.9606  
Epoch 33710/100000  
2/2 [=====] - 0s 132ms/step - loss: 0.0296 - accuracy:  
0.9594  
Epoch 33711/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9594  
Epoch 33712/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9593  
Epoch 33713/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9603  
Epoch 33714/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9588  
Epoch 33715/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9592  
Epoch 33716/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9595  
Epoch 33717/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9599  
Epoch 33718/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9599  
Epoch 33719/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0313 - accuracy:  
0.9604  
Epoch 33720/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9588  
Epoch 33721/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy:  
0.9599  
Epoch 33722/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9597  
Epoch 33723/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9584  
Epoch 33724/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9596  
Epoch 33725/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9595  
Epoch 33726/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9597  
Epoch 33727/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy:  
0.9593  
Epoch 33728/100000



2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9598  
Epoch 33729/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0297 - accuracy:  
0.9594  
Epoch 33730/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0296 - accuracy:  
0.9604  
Epoch 33731/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9589  
Epoch 33732/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0302 - accuracy:  
0.9602  
Epoch 33733/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9590  
Epoch 33734/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9600  
Epoch 33735/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy:  
0.9587  
Epoch 33736/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9599  
Epoch 33737/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
0.9592  
Epoch 33738/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy:  
0.9601  
Epoch 33739/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
0.9596  
Epoch 33740/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9600  
Epoch 33741/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9594  
Epoch 33742/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
0.9593  
Epoch 33743/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9586  
Epoch 33744/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy:  
0.9605  
Epoch 33745/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9595  
Epoch 33746/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0297 - accuracy:  
0.9605  
Epoch 33747/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0302 - accuracy:  
0.9601  
Epoch 33748/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9593  
Epoch 33749/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9604  
Epoch 33750/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9604  
Epoch 33751/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9596  
Epoch 33752/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9602  
Epoch 33753/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9594  
Epoch 33754/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9592  
Epoch 33755/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9599  
Epoch 33756/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9609  
Epoch 33757/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0301 - accuracy:  
0.9589  
Epoch 33758/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy:  
0.9597  
Epoch 33759/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0302 - accuracy:  
0.9597  
Epoch 33760/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9609  
Epoch 33761/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0301 - accuracy:  
0.9593  
Epoch 33762/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9598  
Epoch 33763/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9597  
Epoch 33764/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9608  
Epoch 33765/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9592  
Epoch 33766/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9602  
Epoch 33767/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9595  
Epoch 33768/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
0.9600  
Epoch 33769/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9593  
Epoch 33770/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0293 - accuracy:  
0.9605  
Epoch 33771/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9597  
Epoch 33772/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy:  
0.9599  
Epoch 33773/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
0.9596  
Epoch 33774/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0298 - accuracy:  
0.9583  
Epoch 33775/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0298 - accuracy:  
0.9595  
Epoch 33776/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9603  
Epoch 33777/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9594  
Epoch 33778/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9599  
Epoch 33779/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0293 - accuracy:  
0.9597  
Epoch 33780/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9588  
Epoch 33781/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0301 - accuracy:  
0.9601  
Epoch 33782/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9593  
Epoch 33783/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0306 - accuracy:  
0.9592  
Epoch 33784/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9596  
Epoch 33785/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9597  
Epoch 33786/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9599  
Epoch 33787/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9586  
Epoch 33788/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy:  
0.9598  
Epoch 33789/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9592  
Epoch 33790/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9596  
Epoch 33791/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9593  
Epoch 33792/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9593  
Epoch 33793/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9598  
Epoch 33794/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9594  
Epoch 33795/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9598  
Epoch 33796/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0294 - accuracy:  
0.9585  
Epoch 33797/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9599  
Epoch 33798/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9595  
Epoch 33799/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9590  
Epoch 33800/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9596  
Epoch 33801/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9595  
Epoch 33802/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy:  
0.9591  
Epoch 33803/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9595  
Epoch 33804/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9597  
Epoch 33805/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0296 - accuracy:  
0.9591  
Epoch 33806/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9593  
Epoch 33807/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9605  
Epoch 33808/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0301 - accuracy:  
0.9596  
Epoch 33809/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9589  
Epoch 33810/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9583  
Epoch 33811/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
0.9594  
Epoch 33812/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9602  
Epoch 33813/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9591  
Epoch 33814/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9586  
Epoch 33815/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy:  
0.9592  
Epoch 33816/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9602  
Epoch 33817/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy:  
0.9589  
Epoch 33818/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0298 - accuracy:  
0.9602  
Epoch 33819/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9603  
Epoch 33820/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9588  
Epoch 33821/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0319 - accuracy:  
0.9593  
Epoch 33822/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9602  
Epoch 33823/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy:  
0.9596  
Epoch 33824/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0343 - accuracy:  
0.9599  
Epoch 33825/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0330 - accuracy:  
0.9594  
Epoch 33826/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9601  
Epoch 33827/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9599  
Epoch 33828/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy:  
0.9593  
Epoch 33829/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0312 - accuracy:  
0.9594  
Epoch 33830/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9590  
Epoch 33831/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9591  
Epoch 33832/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9602  
Epoch 33833/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9599  
Epoch 33834/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0307 - accuracy:  
0.9593  
Epoch 33835/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9595  
Epoch 33836/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9601  
Epoch 33837/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9585  
Epoch 33838/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9604  
Epoch 33839/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9604  
Epoch 33840/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9597  
Epoch 33841/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0299 - accuracy:  
0.9600  
Epoch 33842/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9603  
Epoch 33843/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy:  
0.9597  
Epoch 33844/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9601  
Epoch 33845/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9596  
Epoch 33846/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9597  
Epoch 33847/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9593  
Epoch 33848/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9600  
Epoch 33849/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9594  
Epoch 33850/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0331 - accuracy:  
0.9601  
Epoch 33851/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9597  
Epoch 33852/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9589  
Epoch 33853/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9583  
Epoch 33854/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9591  
Epoch 33855/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0312 - accuracy:  
0.9600  
Epoch 33856/100000



2/2 [=====] - 0s 120ms/step - loss: 0.0313 - accuracy:  
0.9604  
Epoch 33857/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9596  
Epoch 33858/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9593  
Epoch 33859/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9603  
Epoch 33860/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy:  
0.9606  
Epoch 33861/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0309 - accuracy:  
0.9601  
Epoch 33862/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9586  
Epoch 33863/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9595  
Epoch 33864/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9595  
Epoch 33865/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9595  
Epoch 33866/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9595  
Epoch 33867/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9597  
Epoch 33868/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy:  
0.9601  
Epoch 33869/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9601  
Epoch 33870/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0301 - accuracy:  
0.9597  
Epoch 33871/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9598  
Epoch 33872/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9606  
Epoch 33873/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9594  
Epoch 33874/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9599  
Epoch 33875/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9592  
Epoch 33876/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9593  
Epoch 33877/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9592  
Epoch 33878/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0305 - accuracy:  
0.9596  
Epoch 33879/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9592  
Epoch 33880/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9604  
Epoch 33881/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9596  
Epoch 33882/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9596  
Epoch 33883/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9596  
Epoch 33884/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy:  
0.9594  
Epoch 33885/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9597  
Epoch 33886/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9595  
Epoch 33887/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9592  
Epoch 33888/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9593  
Epoch 33889/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9599  
Epoch 33890/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0302 - accuracy:  
0.9602  
Epoch 33891/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9600  
Epoch 33892/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0309 - accuracy:  
0.9602  
Epoch 33893/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9595  
Epoch 33894/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9599  
Epoch 33895/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9592  
Epoch 33896/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9592  
Epoch 33897/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9594  
Epoch 33898/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9596  
Epoch 33899/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9601  
Epoch 33900/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9586  
Epoch 33901/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy:  
0.9594  
Epoch 33902/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy:  
0.9590  
Epoch 33903/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9594  
Epoch 33904/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9600  
Epoch 33905/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy:  
0.9603  
Epoch 33906/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9597  
Epoch 33907/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9605  
Epoch 33908/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9602  
Epoch 33909/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9600  
Epoch 33910/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9592  
Epoch 33911/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9593  
Epoch 33912/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9606  
Epoch 33913/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
0.9588  
Epoch 33914/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9606  
Epoch 33915/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy:  
0.9597  
Epoch 33916/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9601  
Epoch 33917/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9600  
Epoch 33918/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9605  
Epoch 33919/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9596  
Epoch 33920/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9598  
Epoch 33921/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy:  
0.9592  
Epoch 33922/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9597  
Epoch 33923/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0303 - accuracy:  
0.9598  
Epoch 33924/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9588  
Epoch 33925/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0299 - accuracy:  
0.9599  
Epoch 33926/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy:  
0.9596  
Epoch 33927/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9591  
Epoch 33928/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9595  
Epoch 33929/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9600  
Epoch 33930/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9589  
Epoch 33931/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9590  
Epoch 33932/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9604  
Epoch 33933/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9593  
Epoch 33934/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9596  
Epoch 33935/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9588  
Epoch 33936/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0294 - accuracy:  
0.9592  
Epoch 33937/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9612  
Epoch 33938/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9597  
Epoch 33939/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9594  
Epoch 33940/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9591  
Epoch 33941/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9592  
Epoch 33942/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9594  
Epoch 33943/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
0.9597  
Epoch 33944/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9601  
Epoch 33945/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9602  
Epoch 33946/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0295 - accuracy:  
0.9592  
Epoch 33947/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9592  
Epoch 33948/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9598  
Epoch 33949/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9595  
Epoch 33950/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9601  
Epoch 33951/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9592  
Epoch 33952/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9606  
Epoch 33953/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9601  
Epoch 33954/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9596  
Epoch 33955/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9598  
Epoch 33956/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0298 - accuracy:  
0.9600  
Epoch 33957/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9600  
Epoch 33958/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9598  
Epoch 33959/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9605  
Epoch 33960/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9600  
Epoch 33961/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9596  
Epoch 33962/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9603  
Epoch 33963/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9592  
Epoch 33964/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9595  
Epoch 33965/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
0.9597  
Epoch 33966/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9609  
Epoch 33967/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0300 - accuracy:  
0.9600  
Epoch 33968/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0299 - accuracy:  
0.9595  
Epoch 33969/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9608  
Epoch 33970/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9588  
Epoch 33971/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0308 - accuracy:  
0.9605  
Epoch 33972/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0302 - accuracy:  
0.9592  
Epoch 33973/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9599  
Epoch 33974/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9590  
Epoch 33975/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9588  
Epoch 33976/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9600  
Epoch 33977/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9599  
Epoch 33978/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9592  
Epoch 33979/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9609  
Epoch 33980/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0308 - accuracy:  
0.9599  
Epoch 33981/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9606  
Epoch 33982/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9599  
Epoch 33983/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9596  
Epoch 33984/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9594  
Epoch 33985/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9598  
Epoch 33986/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9598  
Epoch 33987/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9606  
Epoch 33988/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9598  
Epoch 33989/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9601  
Epoch 33990/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9599  
Epoch 33991/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9597  
Epoch 33992/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9608  
Epoch 33993/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0295 - accuracy:  
0.9603  
Epoch 33994/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9604  
Epoch 33995/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0294 - accuracy:  
0.9597  
Epoch 33996/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9603  
Epoch 33997/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9590  
Epoch 33998/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9595  
Epoch 33999/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
0.9593  
Epoch 34000/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy: 0.9595  
Epoch 34001/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy: 0.9597  
Epoch 34002/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9598  
Epoch 34003/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy: 0.9596  
Epoch 34004/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy: 0.9598  
Epoch 34005/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9600  
Epoch 34006/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9604  
Epoch 34007/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy: 0.9593  
Epoch 34008/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0296 - accuracy: 0.9588  
Epoch 34009/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9598  
Epoch 34010/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0302 - accuracy: 0.9598  
Epoch 34011/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy: 0.9590  
Epoch 34012/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy: 0.9593  
Epoch 34013/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9593  
Epoch 34014/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9595  
Epoch 34015/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0292 - accuracy: 0.9593  
Epoch 34016/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy: 0.9597  
Epoch 34017/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy: 0.9601  
Epoch 34018/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0293 - accuracy: 0.9593  
Epoch 34019/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0290 - accuracy: 0.9591  
Epoch 34020/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy: 0.9605  
Epoch 34021/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy: 0.9598  
Epoch 34022/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9598  
Epoch 34023/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy: 0.9598  
Epoch 34024/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy: 0.9592  
Epoch 34025/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy: 0.9591  
Epoch 34026/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy: 0.9588  
Epoch 34027/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9596  
Epoch 34028/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0299 - accuracy: 0.9600  
Epoch 34029/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy: 0.9600  
Epoch 34030/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy: 0.9594  
Epoch 34031/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0311 - accuracy: 0.9601  
Epoch 34032/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9602  
Epoch 34033/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9597  
Epoch 34034/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0314 - accuracy:  
0.9600  
Epoch 34035/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9598  
Epoch 34036/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9589  
Epoch 34037/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9595  
Epoch 34038/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9596  
Epoch 34039/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9596  
Epoch 34040/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9599  
Epoch 34041/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9601  
Epoch 34042/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9599  
Epoch 34043/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9593  
Epoch 34044/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9596  
Epoch 34045/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9593  
Epoch 34046/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9597  
Epoch 34047/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9602  
Epoch 34048/100000

2/2 [=====] - 0s 119ms/step - loss: 0.0300 - accuracy:  
0.9603  
Epoch 34049/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9610  
Epoch 34050/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy:  
0.9599  
Epoch 34051/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9602  
Epoch 34052/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0317 - accuracy:  
0.9600  
Epoch 34053/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9583  
Epoch 34054/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9598  
Epoch 34055/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9601  
Epoch 34056/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9606  
Epoch 34057/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9592  
Epoch 34058/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9593  
Epoch 34059/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0303 - accuracy:  
0.9595  
Epoch 34060/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9594  
Epoch 34061/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0301 - accuracy:  
0.9605  
Epoch 34062/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9595  
Epoch 34063/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9584  
Epoch 34064/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0300 - accuracy:  
0.9600  
Epoch 34065/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0305 - accuracy:  
0.9600  
Epoch 34066/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0306 - accuracy:  
0.9598  
Epoch 34067/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy:  
0.9608  
Epoch 34068/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0295 - accuracy:  
0.9599  
Epoch 34069/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9604  
Epoch 34070/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0307 - accuracy:  
0.9600  
Epoch 34071/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy:  
0.9599  
Epoch 34072/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9599  
Epoch 34073/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9600  
Epoch 34074/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9597  
Epoch 34075/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9593  
Epoch 34076/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9597  
Epoch 34077/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0310 - accuracy:  
0.9595  
Epoch 34078/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9599  
Epoch 34079/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9597  
Epoch 34080/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy: 0.9602  
Epoch 34081/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0304 - accuracy: 0.9603  
Epoch 34082/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy: 0.9604  
Epoch 34083/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0305 - accuracy: 0.9595  
Epoch 34084/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0301 - accuracy: 0.9600  
Epoch 34085/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9600  
Epoch 34086/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy: 0.9588  
Epoch 34087/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy: 0.9593  
Epoch 34088/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy: 0.9597  
Epoch 34089/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy: 0.9592  
Epoch 34090/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9600  
Epoch 34091/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9589  
Epoch 34092/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9596  
Epoch 34093/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9607  
Epoch 34094/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9597  
Epoch 34095/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9591  
Epoch 34096/100000

2/2 [=====] - 0s 119ms/step - loss: 0.0296 - accuracy:  
0.9587  
Epoch 34097/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9599  
Epoch 34098/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9592  
Epoch 34099/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9593  
Epoch 34100/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9600  
Epoch 34101/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0303 - accuracy:  
0.9604  
Epoch 34102/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9596  
Epoch 34103/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0299 - accuracy:  
0.9587  
Epoch 34104/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9601  
Epoch 34105/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9594  
Epoch 34106/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9596  
Epoch 34107/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9598  
Epoch 34108/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0297 - accuracy:  
0.9596  
Epoch 34109/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9592  
Epoch 34110/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy:  
0.9602  
Epoch 34111/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9598  
Epoch 34112/100000



2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9598  
Epoch 34113/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy:  
0.9598  
Epoch 34114/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9596  
Epoch 34115/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9591  
Epoch 34116/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9592  
Epoch 34117/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0297 - accuracy:  
0.9590  
Epoch 34118/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9602  
Epoch 34119/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9587  
Epoch 34120/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9593  
Epoch 34121/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy:  
0.9599  
Epoch 34122/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9591  
Epoch 34123/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9597  
Epoch 34124/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0311 - accuracy:  
0.9594  
Epoch 34125/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9597  
Epoch 34126/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9597  
Epoch 34127/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9598  
Epoch 34128/100000

2/2 [=====] - 0s 119ms/step - loss: 0.0310 - accuracy:  
0.9600  
Epoch 34129/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9587  
Epoch 34130/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9605  
Epoch 34131/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0306 - accuracy:  
0.9596  
Epoch 34132/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9599  
Epoch 34133/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9589  
Epoch 34134/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9586  
Epoch 34135/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0308 - accuracy:  
0.9592  
Epoch 34136/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9603  
Epoch 34137/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9589  
Epoch 34138/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0312 - accuracy:  
0.9597  
Epoch 34139/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9591  
Epoch 34140/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9602  
Epoch 34141/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9596  
Epoch 34142/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9599  
Epoch 34143/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9600  
Epoch 34144/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9591  
Epoch 34145/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9607  
Epoch 34146/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9591  
Epoch 34147/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0309 - accuracy:  
0.9599  
Epoch 34148/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9601  
Epoch 34149/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9591  
Epoch 34150/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9594  
Epoch 34151/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9589  
Epoch 34152/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9586  
Epoch 34153/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0298 - accuracy:  
0.9583  
Epoch 34154/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0299 - accuracy:  
0.9601  
Epoch 34155/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0298 - accuracy:  
0.9594  
Epoch 34156/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9606  
Epoch 34157/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9593  
Epoch 34158/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0299 - accuracy:  
0.9606  
Epoch 34159/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9604  
Epoch 34160/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9600  
Epoch 34161/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy: 0.9600  
Epoch 34162/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0297 - accuracy: 0.9605  
Epoch 34163/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy: 0.9595  
Epoch 34164/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9601  
Epoch 34165/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy: 0.9597  
Epoch 34166/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9607  
Epoch 34167/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9596  
Epoch 34168/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9591  
Epoch 34169/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy: 0.9604  
Epoch 34170/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0294 - accuracy: 0.9587  
Epoch 34171/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9590  
Epoch 34172/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9593  
Epoch 34173/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy: 0.9590  
Epoch 34174/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0300 - accuracy: 0.9603  
Epoch 34175/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy: 0.9602  
Epoch 34176/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9598  
Epoch 34177/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9590  
Epoch 34178/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9593  
Epoch 34179/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9590  
Epoch 34180/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9593  
Epoch 34181/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9609  
Epoch 34182/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9593  
Epoch 34183/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9598  
Epoch 34184/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9590  
Epoch 34185/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9595  
Epoch 34186/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9611  
Epoch 34187/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9590  
Epoch 34188/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9594  
Epoch 34189/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9601  
Epoch 34190/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9600  
Epoch 34191/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9599  
Epoch 34192/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9604  
Epoch 34193/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9592  
Epoch 34194/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0300 - accuracy:  
0.9604  
Epoch 34195/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9594  
Epoch 34196/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9593  
Epoch 34197/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9595  
Epoch 34198/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9608  
Epoch 34199/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9599  
Epoch 34200/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9597  
Epoch 34201/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0293 - accuracy:  
0.9600  
Epoch 34202/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9590  
Epoch 34203/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9589  
Epoch 34204/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy:  
0.9600  
Epoch 34205/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9606  
Epoch 34206/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0309 - accuracy:  
0.9600  
Epoch 34207/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy:  
0.9589  
Epoch 34208/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy: 0.9593  
Epoch 34209/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9588  
Epoch 34210/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy: 0.9591  
Epoch 34211/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9598  
Epoch 34212/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9597  
Epoch 34213/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy: 0.9590  
Epoch 34214/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy: 0.9600  
Epoch 34215/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0293 - accuracy: 0.9581  
Epoch 34216/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy: 0.9597  
Epoch 34217/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9595  
Epoch 34218/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0293 - accuracy: 0.9593  
Epoch 34219/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9590  
Epoch 34220/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9592  
Epoch 34221/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9606  
Epoch 34222/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy: 0.9600  
Epoch 34223/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy: 0.9600  
Epoch 34224/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy:  
0.9594  
Epoch 34225/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9608  
Epoch 34226/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9588  
Epoch 34227/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9595  
Epoch 34228/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9601  
Epoch 34229/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9587  
Epoch 34230/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9596  
Epoch 34231/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9590  
Epoch 34232/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9595  
Epoch 34233/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9598  
Epoch 34234/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9600  
Epoch 34235/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9593  
Epoch 34236/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0307 - accuracy:  
0.9589  
Epoch 34237/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9595  
Epoch 34238/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9596  
Epoch 34239/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9601  
Epoch 34240/100000



2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy: 0.9599  
Epoch 34241/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9592  
Epoch 34242/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy: 0.9590  
Epoch 34243/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy: 0.9602  
Epoch 34244/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9599  
Epoch 34245/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy: 0.9596  
Epoch 34246/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9594  
Epoch 34247/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9591  
Epoch 34248/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy: 0.9598  
Epoch 34249/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9601  
Epoch 34250/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9594  
Epoch 34251/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy: 0.9600  
Epoch 34252/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9590  
Epoch 34253/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy: 0.9590  
Epoch 34254/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9598  
Epoch 34255/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0295 - accuracy: 0.9583  
Epoch 34256/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9597  
Epoch 34257/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9603  
Epoch 34258/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9596  
Epoch 34259/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy: 0.9599  
Epoch 34260/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy: 0.9597  
Epoch 34261/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9603  
Epoch 34262/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy: 0.9606  
Epoch 34263/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy: 0.9592  
Epoch 34264/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy: 0.9598  
Epoch 34265/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy: 0.9600  
Epoch 34266/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9586  
Epoch 34267/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9600  
Epoch 34268/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy: 0.9592  
Epoch 34269/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9598  
Epoch 34270/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9599  
Epoch 34271/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy: 0.9591  
Epoch 34272/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0311 - accuracy:  
0.9605  
Epoch 34273/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9596  
Epoch 34274/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0327 - accuracy:  
0.9596  
Epoch 34275/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0341 - accuracy:  
0.9600  
Epoch 34276/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0319 - accuracy:  
0.9597  
Epoch 34277/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9596  
Epoch 34278/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9586  
Epoch 34279/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0304 - accuracy:  
0.9597  
Epoch 34280/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0295 - accuracy:  
0.9601  
Epoch 34281/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9587  
Epoch 34282/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0309 - accuracy:  
0.9597  
Epoch 34283/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9596  
Epoch 34284/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9591  
Epoch 34285/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9594  
Epoch 34286/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9599  
Epoch 34287/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9596  
Epoch 34288/100000

2/2 [=====] - 0s 121ms/step - loss: 0.0308 - accuracy:  
0.9606  
Epoch 34289/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy:  
0.9592  
Epoch 34290/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0310 - accuracy:  
0.9602  
Epoch 34291/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9592  
Epoch 34292/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9585  
Epoch 34293/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9594  
Epoch 34294/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9594  
Epoch 34295/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9590  
Epoch 34296/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9592  
Epoch 34297/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0303 - accuracy:  
0.9596  
Epoch 34298/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0297 - accuracy:  
0.9597  
Epoch 34299/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9595  
Epoch 34300/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0304 - accuracy:  
0.9601  
Epoch 34301/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9601  
Epoch 34302/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9602  
Epoch 34303/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9603  
Epoch 34304/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9596  
Epoch 34305/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9600  
Epoch 34306/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9596  
Epoch 34307/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9604  
Epoch 34308/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9597  
Epoch 34309/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy:  
0.9605  
Epoch 34310/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9594  
Epoch 34311/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy:  
0.9594  
Epoch 34312/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9600  
Epoch 34313/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0299 - accuracy:  
0.9595  
Epoch 34314/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9594  
Epoch 34315/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9600  
Epoch 34316/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0297 - accuracy:  
0.9604  
Epoch 34317/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy:  
0.9591  
Epoch 34318/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9592  
Epoch 34319/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9600  
Epoch 34320/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9599  
Epoch 34321/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9598  
Epoch 34322/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9600  
Epoch 34323/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0293 - accuracy:  
0.9596  
Epoch 34324/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9595  
Epoch 34325/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9591  
Epoch 34326/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9598  
Epoch 34327/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy:  
0.9591  
Epoch 34328/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy:  
0.9596  
Epoch 34329/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9588  
Epoch 34330/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9591  
Epoch 34331/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9600  
Epoch 34332/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9591  
Epoch 34333/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9600  
Epoch 34334/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9595  
Epoch 34335/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9600  
Epoch 34336/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9601  
Epoch 34337/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0295 - accuracy:  
0.9586  
Epoch 34338/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9598  
Epoch 34339/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9603  
Epoch 34340/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9601  
Epoch 34341/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9601  
Epoch 34342/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9594  
Epoch 34343/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9591  
Epoch 34344/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9584  
Epoch 34345/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9591  
Epoch 34346/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9612  
Epoch 34347/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9596  
Epoch 34348/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9598  
Epoch 34349/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0296 - accuracy:  
0.9591  
Epoch 34350/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9599  
Epoch 34351/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9600  
Epoch 34352/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9599  
Epoch 34353/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy: 0.9593  
Epoch 34354/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy: 0.9589  
Epoch 34355/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy: 0.9597  
Epoch 34356/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9592  
Epoch 34357/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy: 0.9606  
Epoch 34358/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy: 0.9589  
Epoch 34359/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0297 - accuracy: 0.9588  
Epoch 34360/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy: 0.9598  
Epoch 34361/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy: 0.9593  
Epoch 34362/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9594  
Epoch 34363/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0297 - accuracy: 0.9594  
Epoch 34364/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy: 0.9590  
Epoch 34365/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy: 0.9599  
Epoch 34366/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy: 0.9590  
Epoch 34367/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy: 0.9597  
Epoch 34368/100000



2/2 [=====] - 0s 114ms/step - loss: 0.0317 - accuracy:  
0.9597  
Epoch 34369/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9599  
Epoch 34370/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9589  
Epoch 34371/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9594  
Epoch 34372/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9599  
Epoch 34373/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9589  
Epoch 34374/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9599  
Epoch 34375/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9592  
Epoch 34376/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9600  
Epoch 34377/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0304 - accuracy:  
0.9591  
Epoch 34378/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0309 - accuracy:  
0.9606  
Epoch 34379/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0307 - accuracy:  
0.9599  
Epoch 34380/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0303 - accuracy:  
0.9591  
Epoch 34381/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9604  
Epoch 34382/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9600  
Epoch 34383/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0309 - accuracy:  
0.9603  
Epoch 34384/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9593  
Epoch 34385/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9597  
Epoch 34386/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9594  
Epoch 34387/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9592  
Epoch 34388/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9597  
Epoch 34389/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9597  
Epoch 34390/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9601  
Epoch 34391/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9589  
Epoch 34392/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9600  
Epoch 34393/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9593  
Epoch 34394/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9588  
Epoch 34395/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9594  
Epoch 34396/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0304 - accuracy:  
0.9604  
Epoch 34397/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9589  
Epoch 34398/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9594  
Epoch 34399/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9596  
Epoch 34400/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy: 0.9597  
Epoch 34401/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9600  
Epoch 34402/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9596  
Epoch 34403/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0302 - accuracy: 0.9611  
Epoch 34404/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy: 0.9595  
Epoch 34405/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9597  
Epoch 34406/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9600  
Epoch 34407/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy: 0.9603  
Epoch 34408/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9606  
Epoch 34409/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy: 0.9590  
Epoch 34410/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy: 0.9597  
Epoch 34411/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9597  
Epoch 34412/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0296 - accuracy: 0.9600  
Epoch 34413/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy: 0.9600  
Epoch 34414/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9598  
Epoch 34415/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy: 0.9598  
Epoch 34416/100000

2/2 [=====] - 0s 120ms/step - loss: 0.0303 - accuracy:  
0.9603  
Epoch 34417/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy:  
0.9586  
Epoch 34418/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
0.9596  
Epoch 34419/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0305 - accuracy:  
0.9602  
Epoch 34420/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9600  
Epoch 34421/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9595  
Epoch 34422/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0295 - accuracy:  
0.9591  
Epoch 34423/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9592  
Epoch 34424/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9598  
Epoch 34425/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0293 - accuracy:  
0.9590  
Epoch 34426/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9598  
Epoch 34427/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9600  
Epoch 34428/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9587  
Epoch 34429/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9588  
Epoch 34430/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9599  
Epoch 34431/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
0.9585  
Epoch 34432/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
0.9587  
Epoch 34433/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy:  
0.9600  
Epoch 34434/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9604  
Epoch 34435/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9600  
Epoch 34436/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0295 - accuracy:  
0.9601  
Epoch 34437/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9602  
Epoch 34438/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9594  
Epoch 34439/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
0.9601  
Epoch 34440/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9594  
Epoch 34441/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9601  
Epoch 34442/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0294 - accuracy:  
0.9593  
Epoch 34443/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9598  
Epoch 34444/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0295 - accuracy:  
0.9590  
Epoch 34445/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9593  
Epoch 34446/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0296 - accuracy:  
0.9604  
Epoch 34447/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9591  
Epoch 34448/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9598  
Epoch 34449/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0312 - accuracy: 0.9590  
Epoch 34450/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy: 0.9603  
Epoch 34451/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy: 0.9589  
Epoch 34452/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy: 0.9596  
Epoch 34453/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0324 - accuracy: 0.9600  
Epoch 34454/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy: 0.9596  
Epoch 34455/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9597  
Epoch 34456/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9590  
Epoch 34457/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9602  
Epoch 34458/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy: 0.9603  
Epoch 34459/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy: 0.9590  
Epoch 34460/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy: 0.9595  
Epoch 34461/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy: 0.9605  
Epoch 34462/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy: 0.9597  
Epoch 34463/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy: 0.9603  
Epoch 34464/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy:  
0.9591  
Epoch 34465/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0300 - accuracy:  
0.9603  
Epoch 34466/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9588  
Epoch 34467/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9602  
Epoch 34468/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9593  
Epoch 34469/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9593  
Epoch 34470/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0298 - accuracy:  
0.9609  
Epoch 34471/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy:  
0.9604  
Epoch 34472/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9600  
Epoch 34473/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9593  
Epoch 34474/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9590  
Epoch 34475/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9588  
Epoch 34476/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9584  
Epoch 34477/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0303 - accuracy:  
0.9603  
Epoch 34478/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9584  
Epoch 34479/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9597  
Epoch 34480/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9596  
Epoch 34481/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0303 - accuracy: 0.9591  
Epoch 34482/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy: 0.9598  
Epoch 34483/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy: 0.9585  
Epoch 34484/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9590  
Epoch 34485/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy: 0.9602  
Epoch 34486/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9602  
Epoch 34487/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0302 - accuracy: 0.9602  
Epoch 34488/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9599  
Epoch 34489/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0297 - accuracy: 0.9598  
Epoch 34490/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy: 0.9597  
Epoch 34491/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy: 0.9599  
Epoch 34492/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy: 0.9592  
Epoch 34493/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0300 - accuracy: 0.9600  
Epoch 34494/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9603  
Epoch 34495/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9600  
Epoch 34496/100000



2/2 [=====] - 0s 118ms/step - loss: 0.0296 - accuracy:  
0.9594  
Epoch 34497/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9594  
Epoch 34498/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9589  
Epoch 34499/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9596  
Epoch 34500/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9605  
Epoch 34501/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9589  
Epoch 34502/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9603  
Epoch 34503/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9608  
Epoch 34504/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0306 - accuracy:  
0.9605  
Epoch 34505/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9588  
Epoch 34506/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9597  
Epoch 34507/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9606  
Epoch 34508/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9593  
Epoch 34509/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9605  
Epoch 34510/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9603  
Epoch 34511/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9603  
Epoch 34512/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9591  
Epoch 34513/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy:  
0.9594  
Epoch 34514/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9597  
Epoch 34515/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9600  
Epoch 34516/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9603  
Epoch 34517/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0298 - accuracy:  
0.9602  
Epoch 34518/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9601  
Epoch 34519/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9605  
Epoch 34520/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9592  
Epoch 34521/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9593  
Epoch 34522/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9591  
Epoch 34523/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9597  
Epoch 34524/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9597  
Epoch 34525/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9600  
Epoch 34526/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9594  
Epoch 34527/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9594  
Epoch 34528/100000

2/2 [=====] - 0s 119ms/step - loss: 0.0300 - accuracy:  
0.9601  
Epoch 34529/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy:  
0.9611  
Epoch 34530/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy:  
0.9597  
Epoch 34531/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9590  
Epoch 34532/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0297 - accuracy:  
0.9602  
Epoch 34533/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0295 - accuracy:  
0.9608  
Epoch 34534/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9607  
Epoch 34535/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0297 - accuracy:  
0.9589  
Epoch 34536/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9596  
Epoch 34537/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy:  
0.9599  
Epoch 34538/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9603  
Epoch 34539/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9593  
Epoch 34540/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9603  
Epoch 34541/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0302 - accuracy:  
0.9596  
Epoch 34542/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9602  
Epoch 34543/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy:  
0.9593  
Epoch 34544/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9600  
Epoch 34545/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9591  
Epoch 34546/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9600  
Epoch 34547/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9603  
Epoch 34548/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9597  
Epoch 34549/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9594  
Epoch 34550/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9600  
Epoch 34551/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9592  
Epoch 34552/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9607  
Epoch 34553/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy:  
0.9590  
Epoch 34554/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9600  
Epoch 34555/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9588  
Epoch 34556/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0300 - accuracy:  
0.9604  
Epoch 34557/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9602  
Epoch 34558/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9594  
Epoch 34559/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
0.9586  
Epoch 34560/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9587  
Epoch 34561/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0299 - accuracy:  
0.9599  
Epoch 34562/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9602  
Epoch 34563/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9594  
Epoch 34564/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9598  
Epoch 34565/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9598  
Epoch 34566/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9593  
Epoch 34567/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0296 - accuracy:  
0.9599  
Epoch 34568/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9584  
Epoch 34569/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9601  
Epoch 34570/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9595  
Epoch 34571/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9600  
Epoch 34572/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9598  
Epoch 34573/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9600  
Epoch 34574/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9591  
Epoch 34575/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9598  
Epoch 34576/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy:  
0.9590  
Epoch 34577/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9599  
Epoch 34578/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy:  
0.9603  
Epoch 34579/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9593  
Epoch 34580/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0298 - accuracy:  
0.9606  
Epoch 34581/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9584  
Epoch 34582/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9593  
Epoch 34583/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9601  
Epoch 34584/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9585  
Epoch 34585/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9589  
Epoch 34586/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9597  
Epoch 34587/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9604  
Epoch 34588/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9591  
Epoch 34589/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9594  
Epoch 34590/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0300 - accuracy:  
0.9597  
Epoch 34591/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0315 - accuracy:  
0.9596  
Epoch 34592/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9599  
Epoch 34593/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9596  
Epoch 34594/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy:  
0.9590  
Epoch 34595/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9602  
Epoch 34596/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy:  
0.9598  
Epoch 34597/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9602  
Epoch 34598/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9606  
Epoch 34599/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy:  
0.9603  
Epoch 34600/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9599  
Epoch 34601/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9603  
Epoch 34602/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9594  
Epoch 34603/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9593  
Epoch 34604/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9588  
Epoch 34605/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9596  
Epoch 34606/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0301 - accuracy:  
0.9600  
Epoch 34607/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9597  
Epoch 34608/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9600  
Epoch 34609/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9593  
Epoch 34610/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0311 - accuracy:  
0.9591  
Epoch 34611/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9600  
Epoch 34612/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0300 - accuracy:  
0.9590  
Epoch 34613/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0300 - accuracy:  
0.9588  
Epoch 34614/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9602  
Epoch 34615/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0296 - accuracy:  
0.9596  
Epoch 34616/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9607  
Epoch 34617/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9594  
Epoch 34618/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9595  
Epoch 34619/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9588  
Epoch 34620/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0291 - accuracy:  
0.9585  
Epoch 34621/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0295 - accuracy:  
0.9591  
Epoch 34622/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9595  
Epoch 34623/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9596  
Epoch 34624/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9597  
Epoch 34625/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy: 0.9598  
Epoch 34626/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0296 - accuracy: 0.9598  
Epoch 34627/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0300 - accuracy: 0.9592  
Epoch 34628/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy: 0.9599  
Epoch 34629/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9597  
Epoch 34630/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy: 0.9596  
Epoch 34631/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy: 0.9606  
Epoch 34632/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy: 0.9597  
Epoch 34633/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy: 0.9593  
Epoch 34634/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy: 0.9595  
Epoch 34635/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy: 0.9587  
Epoch 34636/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9591  
Epoch 34637/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy: 0.9599  
Epoch 34638/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy: 0.9585  
Epoch 34639/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy: 0.9599  
Epoch 34640/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9597  
Epoch 34641/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0321 - accuracy: 0.9596  
Epoch 34642/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy: 0.9595  
Epoch 34643/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0326 - accuracy: 0.9608  
Epoch 34644/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy: 0.9589  
Epoch 34645/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0327 - accuracy: 0.9594  
Epoch 34646/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy: 0.9591  
Epoch 34647/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0314 - accuracy: 0.9596  
Epoch 34648/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy: 0.9593  
Epoch 34649/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy: 0.9594  
Epoch 34650/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy: 0.9606  
Epoch 34651/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy: 0.9585  
Epoch 34652/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy: 0.9600  
Epoch 34653/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9604  
Epoch 34654/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9592  
Epoch 34655/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy: 0.9591  
Epoch 34656/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9595  
Epoch 34657/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9601  
Epoch 34658/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9602  
Epoch 34659/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9595  
Epoch 34660/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9594  
Epoch 34661/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9600  
Epoch 34662/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9598  
Epoch 34663/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9592  
Epoch 34664/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9590  
Epoch 34665/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9589  
Epoch 34666/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9599  
Epoch 34667/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9598  
Epoch 34668/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9599  
Epoch 34669/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9606  
Epoch 34670/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9593  
Epoch 34671/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9606  
Epoch 34672/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0309 - accuracy:  
0.9608  
Epoch 34673/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9589  
Epoch 34674/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9599  
Epoch 34675/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9591  
Epoch 34676/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9593  
Epoch 34677/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9596  
Epoch 34678/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9595  
Epoch 34679/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy:  
0.9597  
Epoch 34680/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9602  
Epoch 34681/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9596  
Epoch 34682/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0296 - accuracy:  
0.9601  
Epoch 34683/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy:  
0.9596  
Epoch 34684/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0302 - accuracy:  
0.9596  
Epoch 34685/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9591  
Epoch 34686/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy:  
0.9596  
Epoch 34687/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9591  
Epoch 34688/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9604  
Epoch 34689/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9597  
Epoch 34690/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy:  
0.9592  
Epoch 34691/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0293 - accuracy:  
0.9584  
Epoch 34692/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9595  
Epoch 34693/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9599  
Epoch 34694/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9585  
Epoch 34695/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9600  
Epoch 34696/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9588  
Epoch 34697/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9593  
Epoch 34698/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9587  
Epoch 34699/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9604  
Epoch 34700/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9604  
Epoch 34701/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9597  
Epoch 34702/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9601  
Epoch 34703/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9592  
Epoch 34704/100000

2/2 [=====] - 0s 120ms/step - loss: 0.0298 - accuracy: 0.9588  
Epoch 34705/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0294 - accuracy: 0.9597  
Epoch 34706/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9600  
Epoch 34707/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9594  
Epoch 34708/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9593  
Epoch 34709/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy: 0.9590  
Epoch 34710/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy: 0.9600  
Epoch 34711/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy: 0.9585  
Epoch 34712/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9596  
Epoch 34713/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9594  
Epoch 34714/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0302 - accuracy: 0.9588  
Epoch 34715/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0315 - accuracy: 0.9590  
Epoch 34716/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy: 0.9589  
Epoch 34717/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy: 0.9593  
Epoch 34718/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9599  
Epoch 34719/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9595  
Epoch 34720/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9592  
Epoch 34721/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy: 0.9605  
Epoch 34722/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0325 - accuracy: 0.9601  
Epoch 34723/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy: 0.9602  
Epoch 34724/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9583  
Epoch 34725/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0330 - accuracy: 0.9601  
Epoch 34726/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy: 0.9600  
Epoch 34727/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9594  
Epoch 34728/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy: 0.9594  
Epoch 34729/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy: 0.9597  
Epoch 34730/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy: 0.9604  
Epoch 34731/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0317 - accuracy: 0.9590  
Epoch 34732/100000  
2/2 [=====] - 0s 126ms/step - loss: 0.0312 - accuracy: 0.9597  
Epoch 34733/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0306 - accuracy: 0.9593  
Epoch 34734/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0302 - accuracy: 0.9592  
Epoch 34735/100000  
2/2 [=====] - 0s 131ms/step - loss: 0.0306 - accuracy: 0.9607  
Epoch 34736/100000

2/2 [=====] - 0s 123ms/step - loss: 0.0306 - accuracy:  
0.9596  
Epoch 34737/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0318 - accuracy:  
0.9596  
Epoch 34738/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0307 - accuracy:  
0.9596  
Epoch 34739/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0304 - accuracy:  
0.9598  
Epoch 34740/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9596  
Epoch 34741/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9592  
Epoch 34742/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9590  
Epoch 34743/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0296 - accuracy:  
0.9593  
Epoch 34744/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9598  
Epoch 34745/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9589  
Epoch 34746/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9592  
Epoch 34747/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9597  
Epoch 34748/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9598  
Epoch 34749/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9602  
Epoch 34750/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9603  
Epoch 34751/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0293 - accuracy:  
0.9609  
Epoch 34752/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9596  
Epoch 34753/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy: 0.9604  
Epoch 34754/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0294 - accuracy: 0.9600  
Epoch 34755/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy: 0.9599  
Epoch 34756/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy: 0.9599  
Epoch 34757/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy: 0.9582  
Epoch 34758/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0292 - accuracy: 0.9594  
Epoch 34759/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0290 - accuracy: 0.9579  
Epoch 34760/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy: 0.9592  
Epoch 34761/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy: 0.9595  
Epoch 34762/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy: 0.9603  
Epoch 34763/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy: 0.9602  
Epoch 34764/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy: 0.9584  
Epoch 34765/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0296 - accuracy: 0.9598  
Epoch 34766/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy: 0.9594  
Epoch 34767/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy: 0.9590  
Epoch 34768/100000

2/2 [=====] - 0s 120ms/step - loss: 0.0301 - accuracy: 0.9600  
Epoch 34769/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0296 - accuracy: 0.9587  
Epoch 34770/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0310 - accuracy: 0.9598  
Epoch 34771/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0310 - accuracy: 0.9587  
Epoch 34772/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy: 0.9599  
Epoch 34773/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy: 0.9593  
Epoch 34774/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy: 0.9604  
Epoch 34775/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy: 0.9598  
Epoch 34776/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9594  
Epoch 34777/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy: 0.9599  
Epoch 34778/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy: 0.9598  
Epoch 34779/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy: 0.9593  
Epoch 34780/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0297 - accuracy: 0.9589  
Epoch 34781/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0296 - accuracy: 0.9594  
Epoch 34782/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy: 0.9592  
Epoch 34783/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9596  
Epoch 34784/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9607  
Epoch 34785/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9604  
Epoch 34786/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9602  
Epoch 34787/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9600  
Epoch 34788/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9600  
Epoch 34789/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9599  
Epoch 34790/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy:  
0.9595  
Epoch 34791/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9596  
Epoch 34792/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9601  
Epoch 34793/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9595  
Epoch 34794/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9607  
Epoch 34795/100000  
2/2 [=====] - 0s 127ms/step - loss: 0.0301 - accuracy:  
0.9592  
Epoch 34796/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0310 - accuracy:  
0.9595  
Epoch 34797/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0307 - accuracy:  
0.9595  
Epoch 34798/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0310 - accuracy:  
0.9595  
Epoch 34799/100000  
2/2 [=====] - 0s 127ms/step - loss: 0.0313 - accuracy:  
0.9597  
Epoch 34800/100000

2/2 [=====] - 0s 126ms/step - loss: 0.0302 - accuracy: 0.9599  
Epoch 34801/100000  
2/2 [=====] - 0s 130ms/step - loss: 0.0298 - accuracy: 0.9584  
Epoch 34802/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy: 0.9597  
Epoch 34803/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9598  
Epoch 34804/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy: 0.9594  
Epoch 34805/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0299 - accuracy: 0.9599  
Epoch 34806/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0295 - accuracy: 0.9590  
Epoch 34807/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0293 - accuracy: 0.9594  
Epoch 34808/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0297 - accuracy: 0.9591  
Epoch 34809/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9604  
Epoch 34810/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy: 0.9594  
Epoch 34811/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy: 0.9596  
Epoch 34812/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy: 0.9603  
Epoch 34813/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy: 0.9599  
Epoch 34814/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9590  
Epoch 34815/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy: 0.9593  
Epoch 34816/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0299 - accuracy:  
0.9607  
Epoch 34817/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9599  
Epoch 34818/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9607  
Epoch 34819/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9603  
Epoch 34820/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9600  
Epoch 34821/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9606  
Epoch 34822/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy:  
0.9593  
Epoch 34823/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9599  
Epoch 34824/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0296 - accuracy:  
0.9593  
Epoch 34825/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9595  
Epoch 34826/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9592  
Epoch 34827/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9591  
Epoch 34828/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9600  
Epoch 34829/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9598  
Epoch 34830/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0298 - accuracy:  
0.9604  
Epoch 34831/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9597  
Epoch 34832/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9583  
Epoch 34833/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9589  
Epoch 34834/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9595  
Epoch 34835/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9597  
Epoch 34836/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9601  
Epoch 34837/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy:  
0.9601  
Epoch 34838/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9601  
Epoch 34839/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9595  
Epoch 34840/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9594  
Epoch 34841/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9591  
Epoch 34842/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9589  
Epoch 34843/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0296 - accuracy:  
0.9590  
Epoch 34844/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9597  
Epoch 34845/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9596  
Epoch 34846/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9609  
Epoch 34847/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9596  
Epoch 34848/100000

2/2 [=====] - 0s 119ms/step - loss: 0.0297 - accuracy:  
0.9603  
Epoch 34849/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9596  
Epoch 34850/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9596  
Epoch 34851/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9597  
Epoch 34852/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9591  
Epoch 34853/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9592  
Epoch 34854/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9604  
Epoch 34855/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy:  
0.9596  
Epoch 34856/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9604  
Epoch 34857/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9602  
Epoch 34858/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9592  
Epoch 34859/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0301 - accuracy:  
0.9599  
Epoch 34860/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9598  
Epoch 34861/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9596  
Epoch 34862/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9599  
Epoch 34863/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0297 - accuracy:  
0.9598  
Epoch 34864/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy:  
0.9586  
Epoch 34865/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9602  
Epoch 34866/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy:  
0.9600  
Epoch 34867/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9607  
Epoch 34868/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9599  
Epoch 34869/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9595  
Epoch 34870/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9592  
Epoch 34871/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9594  
Epoch 34872/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy:  
0.9606  
Epoch 34873/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9598  
Epoch 34874/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
0.9586  
Epoch 34875/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9596  
Epoch 34876/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9603  
Epoch 34877/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9599  
Epoch 34878/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy:  
0.9596  
Epoch 34879/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9592  
Epoch 34880/100000



2/2 [=====] - 0s 114ms/step - loss: 0.0309 - accuracy:  
0.9592  
Epoch 34881/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy:  
0.9595  
Epoch 34882/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9596  
Epoch 34883/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0301 - accuracy:  
0.9598  
Epoch 34884/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9591  
Epoch 34885/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9592  
Epoch 34886/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9597  
Epoch 34887/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0301 - accuracy:  
0.9600  
Epoch 34888/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0304 - accuracy:  
0.9600  
Epoch 34889/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0296 - accuracy:  
0.9588  
Epoch 34890/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9599  
Epoch 34891/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9599  
Epoch 34892/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9590  
Epoch 34893/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9603  
Epoch 34894/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9596  
Epoch 34895/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9592  
Epoch 34896/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9594  
Epoch 34897/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9590  
Epoch 34898/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9594  
Epoch 34899/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9596  
Epoch 34900/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9600  
Epoch 34901/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9596  
Epoch 34902/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0299 - accuracy:  
0.9593  
Epoch 34903/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9604  
Epoch 34904/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9590  
Epoch 34905/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9601  
Epoch 34906/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9590  
Epoch 34907/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9590  
Epoch 34908/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy:  
0.9590  
Epoch 34909/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0299 - accuracy:  
0.9605  
Epoch 34910/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy:  
0.9599  
Epoch 34911/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9594  
Epoch 34912/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy: 0.9601  
Epoch 34913/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9597  
Epoch 34914/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy: 0.9592  
Epoch 34915/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy: 0.9600  
Epoch 34916/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy: 0.9590  
Epoch 34917/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy: 0.9600  
Epoch 34918/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9599  
Epoch 34919/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9591  
Epoch 34920/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9603  
Epoch 34921/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy: 0.9589  
Epoch 34922/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0295 - accuracy: 0.9597  
Epoch 34923/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy: 0.9593  
Epoch 34924/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy: 0.9591  
Epoch 34925/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9588  
Epoch 34926/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy: 0.9597  
Epoch 34927/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy: 0.9604  
Epoch 34928/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9597  
Epoch 34929/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9596  
Epoch 34930/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0292 - accuracy: 0.9590  
Epoch 34931/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9593  
Epoch 34932/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy: 0.9592  
Epoch 34933/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy: 0.9603  
Epoch 34934/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy: 0.9582  
Epoch 34935/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0297 - accuracy: 0.9602  
Epoch 34936/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9592  
Epoch 34937/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9603  
Epoch 34938/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0298 - accuracy: 0.9599  
Epoch 34939/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9592  
Epoch 34940/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9595  
Epoch 34941/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy: 0.9597  
Epoch 34942/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9599  
Epoch 34943/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy: 0.9599  
Epoch 34944/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0295 - accuracy:  
0.9588  
Epoch 34945/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9591  
Epoch 34946/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9604  
Epoch 34947/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0300 - accuracy:  
0.9598  
Epoch 34948/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9601  
Epoch 34949/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9597  
Epoch 34950/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9602  
Epoch 34951/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9589  
Epoch 34952/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy:  
0.9599  
Epoch 34953/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9596  
Epoch 34954/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9598  
Epoch 34955/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9592  
Epoch 34956/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9592  
Epoch 34957/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9601  
Epoch 34958/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9603  
Epoch 34959/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9601  
Epoch 34960/100000

2/2 [=====] - 0s 119ms/step - loss: 0.0299 - accuracy: 0.9596  
Epoch 34961/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0306 - accuracy: 0.9599  
Epoch 34962/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy: 0.9598  
Epoch 34963/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9588  
Epoch 34964/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy: 0.9597  
Epoch 34965/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy: 0.9594  
Epoch 34966/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9602  
Epoch 34967/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy: 0.9586  
Epoch 34968/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0299 - accuracy: 0.9591  
Epoch 34969/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9594  
Epoch 34970/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy: 0.9596  
Epoch 34971/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy: 0.9590  
Epoch 34972/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0303 - accuracy: 0.9593  
Epoch 34973/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy: 0.9589  
Epoch 34974/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy: 0.9592  
Epoch 34975/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9598  
Epoch 34976/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9595  
Epoch 34977/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0298 - accuracy:  
0.9594  
Epoch 34978/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9597  
Epoch 34979/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9599  
Epoch 34980/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9593  
Epoch 34981/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9597  
Epoch 34982/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9594  
Epoch 34983/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9603  
Epoch 34984/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9590  
Epoch 34985/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9595  
Epoch 34986/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9585  
Epoch 34987/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9591  
Epoch 34988/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0305 - accuracy:  
0.9608  
Epoch 34989/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9595  
Epoch 34990/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9596  
Epoch 34991/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy:  
0.9602  
Epoch 34992/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9584  
Epoch 34993/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0316 - accuracy:  
0.9606  
Epoch 34994/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0314 - accuracy:  
0.9602  
Epoch 34995/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9599  
Epoch 34996/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0314 - accuracy:  
0.9596  
Epoch 34997/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0309 - accuracy:  
0.9607  
Epoch 34998/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0313 - accuracy:  
0.9602  
Epoch 34999/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0313 - accuracy:  
0.9599  
Epoch 35000/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0305 - accuracy:  
0.9586  
Epoch 35001/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9595  
Epoch 35002/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0304 - accuracy:  
0.9596  
Epoch 35003/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9594  
Epoch 35004/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy:  
0.9597  
Epoch 35005/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9595  
Epoch 35006/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9589  
Epoch 35007/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9605  
Epoch 35008/100000



2/2 [=====] - 0s 113ms/step - loss: 0.0297 - accuracy:  
0.9592  
Epoch 35009/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy:  
0.9610  
Epoch 35010/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy:  
0.9601  
Epoch 35011/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9595  
Epoch 35012/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9604  
Epoch 35013/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0294 - accuracy:  
0.9606  
Epoch 35014/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9595  
Epoch 35015/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9598  
Epoch 35016/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9606  
Epoch 35017/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9601  
Epoch 35018/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9596  
Epoch 35019/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
0.9597  
Epoch 35020/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy:  
0.9596  
Epoch 35021/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy:  
0.9602  
Epoch 35022/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9598  
Epoch 35023/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy:  
0.9584  
Epoch 35024/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy: 0.9601  
Epoch 35025/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9596  
Epoch 35026/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy: 0.9599  
Epoch 35027/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0298 - accuracy: 0.9597  
Epoch 35028/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9594  
Epoch 35029/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy: 0.9596  
Epoch 35030/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy: 0.9594  
Epoch 35031/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0298 - accuracy: 0.9598  
Epoch 35032/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9599  
Epoch 35033/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy: 0.9599  
Epoch 35034/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9589  
Epoch 35035/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy: 0.9589  
Epoch 35036/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy: 0.9592  
Epoch 35037/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy: 0.9602  
Epoch 35038/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9589  
Epoch 35039/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9602  
Epoch 35040/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy:  
0.9608  
Epoch 35041/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy:  
0.9595  
Epoch 35042/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9603  
Epoch 35043/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9588  
Epoch 35044/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0295 - accuracy:  
0.9593  
Epoch 35045/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy:  
0.9598  
Epoch 35046/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
0.9599  
Epoch 35047/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy:  
0.9598  
Epoch 35048/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9585  
Epoch 35049/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy:  
0.9603  
Epoch 35050/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy:  
0.9602  
Epoch 35051/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9590  
Epoch 35052/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9599  
Epoch 35053/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9594  
Epoch 35054/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9590  
Epoch 35055/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy:  
0.9603  
Epoch 35056/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0310 - accuracy:  
0.9597  
Epoch 35057/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9591  
Epoch 35058/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0296 - accuracy:  
0.9587  
Epoch 35059/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9590  
Epoch 35060/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9589  
Epoch 35061/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9608  
Epoch 35062/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0304 - accuracy:  
0.9589  
Epoch 35063/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9602  
Epoch 35064/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9609  
Epoch 35065/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9599  
Epoch 35066/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0315 - accuracy:  
0.9603  
Epoch 35067/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9583  
Epoch 35068/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0309 - accuracy:  
0.9598  
Epoch 35069/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy:  
0.9606  
Epoch 35070/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9602  
Epoch 35071/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9604  
Epoch 35072/100000

2/2 [=====] - 0s 128ms/step - loss: 0.0312 - accuracy: 0.9603  
Epoch 35073/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0303 - accuracy: 0.9598  
Epoch 35074/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0298 - accuracy: 0.9596  
Epoch 35075/100000  
2/2 [=====] - 0s 132ms/step - loss: 0.0303 - accuracy: 0.9606  
Epoch 35076/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0300 - accuracy: 0.9602  
Epoch 35077/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9590  
Epoch 35078/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9597  
Epoch 35079/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9600  
Epoch 35080/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy: 0.9597  
Epoch 35081/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0293 - accuracy: 0.9602  
Epoch 35082/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0294 - accuracy: 0.9593  
Epoch 35083/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy: 0.9596  
Epoch 35084/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9590  
Epoch 35085/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy: 0.9603  
Epoch 35086/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9593  
Epoch 35087/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy: 0.9601  
Epoch 35088/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9596  
Epoch 35089/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9599  
Epoch 35090/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9599  
Epoch 35091/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9597  
Epoch 35092/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9590  
Epoch 35093/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy:  
0.9594  
Epoch 35094/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9589  
Epoch 35095/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9596  
Epoch 35096/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9588  
Epoch 35097/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9602  
Epoch 35098/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy:  
0.9596  
Epoch 35099/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0298 - accuracy:  
0.9588  
Epoch 35100/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9601  
Epoch 35101/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy:  
0.9608  
Epoch 35102/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9603  
Epoch 35103/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9602  
Epoch 35104/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9611  
Epoch 35105/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9597  
Epoch 35106/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9606  
Epoch 35107/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9606  
Epoch 35108/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0299 - accuracy:  
0.9597  
Epoch 35109/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9600  
Epoch 35110/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0299 - accuracy:  
0.9595  
Epoch 35111/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9597  
Epoch 35112/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9594  
Epoch 35113/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9599  
Epoch 35114/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0296 - accuracy:  
0.9601  
Epoch 35115/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9597  
Epoch 35116/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9600  
Epoch 35117/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0294 - accuracy:  
0.9592  
Epoch 35118/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9585  
Epoch 35119/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy:  
0.9595  
Epoch 35120/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9600  
Epoch 35121/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0294 - accuracy:  
0.9591  
Epoch 35122/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9599  
Epoch 35123/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9595  
Epoch 35124/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9596  
Epoch 35125/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy:  
0.9590  
Epoch 35126/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9597  
Epoch 35127/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9602  
Epoch 35128/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0298 - accuracy:  
0.9604  
Epoch 35129/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0315 - accuracy:  
0.9599  
Epoch 35130/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9600  
Epoch 35131/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9604  
Epoch 35132/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0304 - accuracy:  
0.9602  
Epoch 35133/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0312 - accuracy:  
0.9608  
Epoch 35134/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9597  
Epoch 35135/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0324 - accuracy:  
0.9593  
Epoch 35136/100000



2/2 [=====] - 0s 121ms/step - loss: 0.0312 - accuracy:  
0.9599  
Epoch 35137/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9597  
Epoch 35138/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy:  
0.9600  
Epoch 35139/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0325 - accuracy:  
0.9599  
Epoch 35140/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0321 - accuracy:  
0.9586  
Epoch 35141/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0318 - accuracy:  
0.9591  
Epoch 35142/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0313 - accuracy:  
0.9592  
Epoch 35143/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy:  
0.9593  
Epoch 35144/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0312 - accuracy:  
0.9602  
Epoch 35145/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0317 - accuracy:  
0.9601  
Epoch 35146/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0311 - accuracy:  
0.9599  
Epoch 35147/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0304 - accuracy:  
0.9602  
Epoch 35148/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9597  
Epoch 35149/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0310 - accuracy:  
0.9597  
Epoch 35150/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9613  
Epoch 35151/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9593  
Epoch 35152/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy: 0.9600  
Epoch 35153/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9602  
Epoch 35154/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9596  
Epoch 35155/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0302 - accuracy: 0.9597  
Epoch 35156/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy: 0.9593  
Epoch 35157/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0305 - accuracy: 0.9592  
Epoch 35158/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9596  
Epoch 35159/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9604  
Epoch 35160/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9595  
Epoch 35161/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy: 0.9595  
Epoch 35162/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy: 0.9588  
Epoch 35163/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy: 0.9594  
Epoch 35164/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9591  
Epoch 35165/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy: 0.9593  
Epoch 35166/100000  
2/2 [=====] - 0s 112ms/step - loss: 0.0305 - accuracy: 0.9591  
Epoch 35167/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy: 0.9599  
Epoch 35168/100000

2/2 [=====] - 0s 120ms/step - loss: 0.0300 - accuracy:  
0.9600  
Epoch 35169/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9596  
Epoch 35170/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9605  
Epoch 35171/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0295 - accuracy:  
0.9601  
Epoch 35172/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9594  
Epoch 35173/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy:  
0.9592  
Epoch 35174/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9592  
Epoch 35175/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9601  
Epoch 35176/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9594  
Epoch 35177/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9594  
Epoch 35178/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9606  
Epoch 35179/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9603  
Epoch 35180/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9592  
Epoch 35181/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy:  
0.9597  
Epoch 35182/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy:  
0.9601  
Epoch 35183/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9601  
Epoch 35184/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9594  
Epoch 35185/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9600  
Epoch 35186/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9605  
Epoch 35187/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9595  
Epoch 35188/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9595  
Epoch 35189/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9598  
Epoch 35190/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9602  
Epoch 35191/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9591  
Epoch 35192/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0296 - accuracy:  
0.9586  
Epoch 35193/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9600  
Epoch 35194/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0303 - accuracy:  
0.9601  
Epoch 35195/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0302 - accuracy:  
0.9593  
Epoch 35196/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9600  
Epoch 35197/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9601  
Epoch 35198/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0296 - accuracy:  
0.9591  
Epoch 35199/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9592  
Epoch 35200/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9588  
Epoch 35201/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0294 - accuracy:  
0.9591  
Epoch 35202/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0292 - accuracy:  
0.9597  
Epoch 35203/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9601  
Epoch 35204/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy:  
0.9593  
Epoch 35205/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy:  
0.9597  
Epoch 35206/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9597  
Epoch 35207/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9606  
Epoch 35208/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9593  
Epoch 35209/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9583  
Epoch 35210/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9597  
Epoch 35211/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9596  
Epoch 35212/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9598  
Epoch 35213/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9602  
Epoch 35214/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0301 - accuracy:  
0.9596  
Epoch 35215/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9587  
Epoch 35216/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0300 - accuracy:  
0.9591  
Epoch 35217/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9602  
Epoch 35218/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0293 - accuracy:  
0.9591  
Epoch 35219/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9593  
Epoch 35220/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9606  
Epoch 35221/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9590  
Epoch 35222/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9589  
Epoch 35223/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0295 - accuracy:  
0.9599  
Epoch 35224/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9593  
Epoch 35225/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9601  
Epoch 35226/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9604  
Epoch 35227/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9600  
Epoch 35228/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9606  
Epoch 35229/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9602  
Epoch 35230/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9594  
Epoch 35231/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9591  
Epoch 35232/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9602  
Epoch 35233/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy:  
0.9590  
Epoch 35234/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy:  
0.9594  
Epoch 35235/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0297 - accuracy:  
0.9598  
Epoch 35236/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9592  
Epoch 35237/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0297 - accuracy:  
0.9586  
Epoch 35238/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9594  
Epoch 35239/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9598  
Epoch 35240/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9592  
Epoch 35241/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0300 - accuracy:  
0.9600  
Epoch 35242/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0291 - accuracy:  
0.9596  
Epoch 35243/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9590  
Epoch 35244/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9595  
Epoch 35245/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9598  
Epoch 35246/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9591  
Epoch 35247/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9595  
Epoch 35248/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9596  
Epoch 35249/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9597  
Epoch 35250/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9601  
Epoch 35251/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9592  
Epoch 35252/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9600  
Epoch 35253/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9603  
Epoch 35254/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9592  
Epoch 35255/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9592  
Epoch 35256/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9597  
Epoch 35257/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9597  
Epoch 35258/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy:  
0.9592  
Epoch 35259/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0299 - accuracy:  
0.9603  
Epoch 35260/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9598  
Epoch 35261/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9603  
Epoch 35262/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9597  
Epoch 35263/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9603  
Epoch 35264/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9589  
Epoch 35265/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0298 - accuracy:  
0.9597  
Epoch 35266/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9589  
Epoch 35267/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0296 - accuracy:  
0.9592  
Epoch 35268/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0298 - accuracy:  
0.9594  
Epoch 35269/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9606  
Epoch 35270/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9594  
Epoch 35271/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9593  
Epoch 35272/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9596  
Epoch 35273/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9597  
Epoch 35274/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9598  
Epoch 35275/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9595  
Epoch 35276/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9605  
Epoch 35277/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9600  
Epoch 35278/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9596  
Epoch 35279/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9601  
Epoch 35280/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9590  
Epoch 35281/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9604  
Epoch 35282/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0295 - accuracy:  
0.9588  
Epoch 35283/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9598  
Epoch 35284/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy:  
0.9602  
Epoch 35285/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9593  
Epoch 35286/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9602  
Epoch 35287/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9595  
Epoch 35288/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9590  
Epoch 35289/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9597  
Epoch 35290/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0310 - accuracy:  
0.9594  
Epoch 35291/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9589  
Epoch 35292/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9594  
Epoch 35293/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9591  
Epoch 35294/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9602  
Epoch 35295/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9592  
Epoch 35296/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9597  
Epoch 35297/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0315 - accuracy: 0.9600  
Epoch 35298/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9590  
Epoch 35299/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0310 - accuracy: 0.9598  
Epoch 35300/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy: 0.9597  
Epoch 35301/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9608  
Epoch 35302/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0314 - accuracy: 0.9596  
Epoch 35303/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0310 - accuracy: 0.9581  
Epoch 35304/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy: 0.9599  
Epoch 35305/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy: 0.9593  
Epoch 35306/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy: 0.9595  
Epoch 35307/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0305 - accuracy: 0.9604  
Epoch 35308/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9605  
Epoch 35309/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy: 0.9600  
Epoch 35310/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9594  
Epoch 35311/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9604  
Epoch 35312/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9593  
Epoch 35313/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9597  
Epoch 35314/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy:  
0.9597  
Epoch 35315/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9596  
Epoch 35316/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9589  
Epoch 35317/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy:  
0.9606  
Epoch 35318/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0313 - accuracy:  
0.9594  
Epoch 35319/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9601  
Epoch 35320/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9602  
Epoch 35321/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9592  
Epoch 35322/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9597  
Epoch 35323/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9599  
Epoch 35324/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9587  
Epoch 35325/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy:  
0.9608  
Epoch 35326/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9598  
Epoch 35327/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9607  
Epoch 35328/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9592  
Epoch 35329/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9600  
Epoch 35330/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0306 - accuracy:  
0.9598  
Epoch 35331/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0310 - accuracy:  
0.9589  
Epoch 35332/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9594  
Epoch 35333/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9595  
Epoch 35334/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9591  
Epoch 35335/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy:  
0.9595  
Epoch 35336/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9600  
Epoch 35337/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy:  
0.9599  
Epoch 35338/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9602  
Epoch 35339/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9596  
Epoch 35340/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0294 - accuracy:  
0.9589  
Epoch 35341/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9597  
Epoch 35342/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9605  
Epoch 35343/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9597  
Epoch 35344/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy:  
0.9597  
Epoch 35345/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
0.9598  
Epoch 35346/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9601  
Epoch 35347/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9596  
Epoch 35348/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9594  
Epoch 35349/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9593  
Epoch 35350/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9599  
Epoch 35351/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9596  
Epoch 35352/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9595  
Epoch 35353/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy:  
0.9584  
Epoch 35354/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9601  
Epoch 35355/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy:  
0.9590  
Epoch 35356/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9603  
Epoch 35357/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9596  
Epoch 35358/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9588  
Epoch 35359/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9603  
Epoch 35360/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9592  
Epoch 35361/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0316 - accuracy:  
0.9592  
Epoch 35362/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9595  
Epoch 35363/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9584  
Epoch 35364/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9586  
Epoch 35365/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0310 - accuracy:  
0.9597  
Epoch 35366/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0314 - accuracy:  
0.9594  
Epoch 35367/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9585  
Epoch 35368/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0304 - accuracy:  
0.9592  
Epoch 35369/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9592  
Epoch 35370/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9595  
Epoch 35371/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0300 - accuracy:  
0.9594  
Epoch 35372/100000  
2/2 [=====] - 0s 138ms/step - loss: 0.0300 - accuracy:  
0.9593  
Epoch 35373/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0305 - accuracy:  
0.9590  
Epoch 35374/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0299 - accuracy:  
0.9590  
Epoch 35375/100000  
2/2 [=====] - 0s 130ms/step - loss: 0.0302 - accuracy:  
0.9592  
Epoch 35376/100000

2/2 [=====] - 0s 120ms/step - loss: 0.0304 - accuracy:  
0.9602  
Epoch 35377/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9607  
Epoch 35378/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9591  
Epoch 35379/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9595  
Epoch 35380/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9602  
Epoch 35381/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy:  
0.9596  
Epoch 35382/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9603  
Epoch 35383/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0294 - accuracy:  
0.9592  
Epoch 35384/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9601  
Epoch 35385/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9601  
Epoch 35386/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9597  
Epoch 35387/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy:  
0.9600  
Epoch 35388/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9597  
Epoch 35389/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9598  
Epoch 35390/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0300 - accuracy:  
0.9598  
Epoch 35391/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9597  
Epoch 35392/100000



2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9591  
Epoch 35393/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9599  
Epoch 35394/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9592  
Epoch 35395/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9587  
Epoch 35396/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9604  
Epoch 35397/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9595  
Epoch 35398/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9603  
Epoch 35399/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9590  
Epoch 35400/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9589  
Epoch 35401/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0302 - accuracy:  
0.9601  
Epoch 35402/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9600  
Epoch 35403/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9596  
Epoch 35404/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0293 - accuracy:  
0.9586  
Epoch 35405/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9599  
Epoch 35406/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0294 - accuracy:  
0.9599  
Epoch 35407/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9600  
Epoch 35408/100000

2/2 [=====] - 0s 119ms/step - loss: 0.0300 - accuracy:  
0.9600  
Epoch 35409/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9594  
Epoch 35410/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9592  
Epoch 35411/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9602  
Epoch 35412/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9602  
Epoch 35413/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9601  
Epoch 35414/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9599  
Epoch 35415/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9598  
Epoch 35416/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9606  
Epoch 35417/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9602  
Epoch 35418/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0295 - accuracy:  
0.9592  
Epoch 35419/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy:  
0.9593  
Epoch 35420/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0296 - accuracy:  
0.9592  
Epoch 35421/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9591  
Epoch 35422/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0300 - accuracy:  
0.9600  
Epoch 35423/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9603  
Epoch 35424/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy: 0.9597  
Epoch 35425/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9591  
Epoch 35426/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9600  
Epoch 35427/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0295 - accuracy: 0.9588  
Epoch 35428/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0301 - accuracy: 0.9602  
Epoch 35429/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy: 0.9599  
Epoch 35430/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9600  
Epoch 35431/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy: 0.9593  
Epoch 35432/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy: 0.9592  
Epoch 35433/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0293 - accuracy: 0.9603  
Epoch 35434/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy: 0.9603  
Epoch 35435/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9589  
Epoch 35436/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy: 0.9611  
Epoch 35437/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0301 - accuracy: 0.9601  
Epoch 35438/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9599  
Epoch 35439/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy: 0.9587  
Epoch 35440/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9596  
Epoch 35441/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9593  
Epoch 35442/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0296 - accuracy:  
0.9599  
Epoch 35443/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0291 - accuracy:  
0.9591  
Epoch 35444/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9589  
Epoch 35445/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9593  
Epoch 35446/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9588  
Epoch 35447/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9602  
Epoch 35448/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9599  
Epoch 35449/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9604  
Epoch 35450/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9607  
Epoch 35451/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy:  
0.9586  
Epoch 35452/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy:  
0.9597  
Epoch 35453/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9605  
Epoch 35454/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9602  
Epoch 35455/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9600  
Epoch 35456/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9592  
Epoch 35457/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9599  
Epoch 35458/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9597  
Epoch 35459/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy:  
0.9599  
Epoch 35460/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9598  
Epoch 35461/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9600  
Epoch 35462/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9595  
Epoch 35463/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9596  
Epoch 35464/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9589  
Epoch 35465/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0295 - accuracy:  
0.9600  
Epoch 35466/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0296 - accuracy:  
0.9600  
Epoch 35467/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9593  
Epoch 35468/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9585  
Epoch 35469/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0313 - accuracy:  
0.9593  
Epoch 35470/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9590  
Epoch 35471/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0298 - accuracy:  
0.9606  
Epoch 35472/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy: 0.9595  
Epoch 35473/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy: 0.9606  
Epoch 35474/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy: 0.9592  
Epoch 35475/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy: 0.9602  
Epoch 35476/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9590  
Epoch 35477/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9605  
Epoch 35478/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0316 - accuracy: 0.9602  
Epoch 35479/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy: 0.9601  
Epoch 35480/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9603  
Epoch 35481/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9595  
Epoch 35482/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy: 0.9593  
Epoch 35483/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9600  
Epoch 35484/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy: 0.9592  
Epoch 35485/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy: 0.9597  
Epoch 35486/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9592  
Epoch 35487/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0306 - accuracy: 0.9598  
Epoch 35488/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9606  
Epoch 35489/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9599  
Epoch 35490/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9590  
Epoch 35491/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9595  
Epoch 35492/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9592  
Epoch 35493/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9597  
Epoch 35494/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9602  
Epoch 35495/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9602  
Epoch 35496/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0303 - accuracy:  
0.9607  
Epoch 35497/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9594  
Epoch 35498/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0298 - accuracy:  
0.9600  
Epoch 35499/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9596  
Epoch 35500/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9597  
Epoch 35501/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0307 - accuracy:  
0.9584  
Epoch 35502/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9587  
Epoch 35503/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9600  
Epoch 35504/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy: 0.9597  
Epoch 35505/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy: 0.9603  
Epoch 35506/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9601  
Epoch 35507/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy: 0.9599  
Epoch 35508/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9598  
Epoch 35509/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9598  
Epoch 35510/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy: 0.9598  
Epoch 35511/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0295 - accuracy: 0.9594  
Epoch 35512/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy: 0.9601  
Epoch 35513/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy: 0.9594  
Epoch 35514/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9590  
Epoch 35515/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy: 0.9590  
Epoch 35516/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy: 0.9605  
Epoch 35517/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0296 - accuracy: 0.9585  
Epoch 35518/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy: 0.9602  
Epoch 35519/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy: 0.9590  
Epoch 35520/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9590  
Epoch 35521/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9602  
Epoch 35522/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy: 0.9606  
Epoch 35523/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0295 - accuracy: 0.9595  
Epoch 35524/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy: 0.9593  
Epoch 35525/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9599  
Epoch 35526/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0297 - accuracy: 0.9603  
Epoch 35527/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0294 - accuracy: 0.9589  
Epoch 35528/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy: 0.9590  
Epoch 35529/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy: 0.9595  
Epoch 35530/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9590  
Epoch 35531/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy: 0.9591  
Epoch 35532/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy: 0.9598  
Epoch 35533/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0298 - accuracy: 0.9590  
Epoch 35534/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9596  
Epoch 35535/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy: 0.9594  
Epoch 35536/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9603  
Epoch 35537/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9589  
Epoch 35538/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy:  
0.9599  
Epoch 35539/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9593  
Epoch 35540/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0300 - accuracy:  
0.9607  
Epoch 35541/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0298 - accuracy:  
0.9591  
Epoch 35542/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9597  
Epoch 35543/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9595  
Epoch 35544/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0319 - accuracy:  
0.9598  
Epoch 35545/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0302 - accuracy:  
0.9597  
Epoch 35546/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9607  
Epoch 35547/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9602  
Epoch 35548/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0311 - accuracy:  
0.9599  
Epoch 35549/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9587  
Epoch 35550/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9590  
Epoch 35551/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9596  
Epoch 35552/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9606  
Epoch 35553/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9599  
Epoch 35554/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9591  
Epoch 35555/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy:  
0.9596  
Epoch 35556/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9603  
Epoch 35557/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0297 - accuracy:  
0.9583  
Epoch 35558/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9596  
Epoch 35559/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9593  
Epoch 35560/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy:  
0.9602  
Epoch 35561/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9597  
Epoch 35562/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9601  
Epoch 35563/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9597  
Epoch 35564/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9598  
Epoch 35565/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0300 - accuracy:  
0.9596  
Epoch 35566/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9596  
Epoch 35567/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9601  
Epoch 35568/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9598  
Epoch 35569/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0296 - accuracy:  
0.9597  
Epoch 35570/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy:  
0.9593  
Epoch 35571/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9594  
Epoch 35572/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9592  
Epoch 35573/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9590  
Epoch 35574/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9610  
Epoch 35575/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0295 - accuracy:  
0.9595  
Epoch 35576/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9590  
Epoch 35577/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy:  
0.9593  
Epoch 35578/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9596  
Epoch 35579/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9600  
Epoch 35580/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9599  
Epoch 35581/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9593  
Epoch 35582/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9595  
Epoch 35583/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
0.9589  
Epoch 35584/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9603  
Epoch 35585/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9608  
Epoch 35586/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9604  
Epoch 35587/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9600  
Epoch 35588/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9597  
Epoch 35589/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9588  
Epoch 35590/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9603  
Epoch 35591/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0299 - accuracy:  
0.9592  
Epoch 35592/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9598  
Epoch 35593/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9598  
Epoch 35594/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9590  
Epoch 35595/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9595  
Epoch 35596/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0307 - accuracy:  
0.9599  
Epoch 35597/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9593  
Epoch 35598/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0313 - accuracy:  
0.9601  
Epoch 35599/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9597  
Epoch 35600/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9597  
Epoch 35601/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9599  
Epoch 35602/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0300 - accuracy:  
0.9600  
Epoch 35603/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9600  
Epoch 35604/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9594  
Epoch 35605/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9597  
Epoch 35606/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9598  
Epoch 35607/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9603  
Epoch 35608/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9593  
Epoch 35609/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0312 - accuracy:  
0.9597  
Epoch 35610/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9602  
Epoch 35611/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9596  
Epoch 35612/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9599  
Epoch 35613/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9595  
Epoch 35614/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0303 - accuracy:  
0.9591  
Epoch 35615/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9599  
Epoch 35616/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9600  
Epoch 35617/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9604  
Epoch 35618/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9601  
Epoch 35619/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9605  
Epoch 35620/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9601  
Epoch 35621/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0296 - accuracy:  
0.9596  
Epoch 35622/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0292 - accuracy:  
0.9596  
Epoch 35623/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9597  
Epoch 35624/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9595  
Epoch 35625/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9596  
Epoch 35626/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9597  
Epoch 35627/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9607  
Epoch 35628/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9584  
Epoch 35629/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9601  
Epoch 35630/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9598  
Epoch 35631/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0305 - accuracy:  
0.9606  
Epoch 35632/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9595  
Epoch 35633/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9601  
Epoch 35634/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9597  
Epoch 35635/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9596  
Epoch 35636/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy:  
0.9599  
Epoch 35637/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9595  
Epoch 35638/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9593  
Epoch 35639/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9599  
Epoch 35640/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9599  
Epoch 35641/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9589  
Epoch 35642/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9602  
Epoch 35643/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9597  
Epoch 35644/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9596  
Epoch 35645/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9591  
Epoch 35646/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9591  
Epoch 35647/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9605  
Epoch 35648/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9592  
 Epoch 35649/100000  
 2/2 [=====] - 0s 121ms/step - loss: 0.0302 - accuracy: 0.9598  
 Epoch 35650/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0315 - accuracy: 0.9601  
 Epoch 35651/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9595  
 Epoch 35652/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy: 0.9606  
 Epoch 35653/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9608  
 Epoch 35654/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9601  
 Epoch 35655/100000  
 2/2 [=====] - 0s 121ms/step - loss: 0.0311 - accuracy: 0.9592  
 Epoch 35656/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy: 0.9598  
 Epoch 35657/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0312 - accuracy: 0.9589  
 Epoch 35658/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0328 - accuracy: 0.9599  
 Epoch 35659/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0322 - accuracy: 0.9594  
 Epoch 35660/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0324 - accuracy: 0.9592  
 Epoch 35661/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy: 0.9586  
 Epoch 35662/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy: 0.9605  
 Epoch 35663/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy: 0.9597  
 Epoch 35664/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9599  
Epoch 35665/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9593  
Epoch 35666/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0306 - accuracy:  
0.9593  
Epoch 35667/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9589  
Epoch 35668/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9600  
Epoch 35669/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9604  
Epoch 35670/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0296 - accuracy:  
0.9591  
Epoch 35671/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0294 - accuracy:  
0.9591  
Epoch 35672/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9599  
Epoch 35673/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9597  
Epoch 35674/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy:  
0.9592  
Epoch 35675/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9592  
Epoch 35676/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9600  
Epoch 35677/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9592  
Epoch 35678/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9597  
Epoch 35679/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9589  
Epoch 35680/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9588  
Epoch 35681/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0291 - accuracy:  
0.9589  
Epoch 35682/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
0.9592  
Epoch 35683/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9594  
Epoch 35684/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy:  
0.9598  
Epoch 35685/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9592  
Epoch 35686/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9597  
Epoch 35687/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9599  
Epoch 35688/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0296 - accuracy:  
0.9600  
Epoch 35689/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
0.9593  
Epoch 35690/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9603  
Epoch 35691/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9602  
Epoch 35692/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy:  
0.9600  
Epoch 35693/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9603  
Epoch 35694/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy:  
0.9604  
Epoch 35695/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
0.9592  
Epoch 35696/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9595  
Epoch 35697/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9590  
Epoch 35698/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0296 - accuracy: 0.9602  
Epoch 35699/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0295 - accuracy: 0.9588  
Epoch 35700/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy: 0.9593  
Epoch 35701/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy: 0.9597  
Epoch 35702/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9599  
Epoch 35703/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0327 - accuracy: 0.9587  
Epoch 35704/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0317 - accuracy: 0.9597  
Epoch 35705/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9598  
Epoch 35706/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9604  
Epoch 35707/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0321 - accuracy: 0.9592  
Epoch 35708/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0320 - accuracy: 0.9592  
Epoch 35709/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy: 0.9602  
Epoch 35710/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy: 0.9597  
Epoch 35711/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0309 - accuracy: 0.9599  
Epoch 35712/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0312 - accuracy:  
0.9601  
Epoch 35713/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0309 - accuracy:  
0.9596  
Epoch 35714/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9594  
Epoch 35715/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0311 - accuracy:  
0.9600  
Epoch 35716/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0305 - accuracy:  
0.9603  
Epoch 35717/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9596  
Epoch 35718/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9598  
Epoch 35719/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9603  
Epoch 35720/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9599  
Epoch 35721/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9597  
Epoch 35722/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9599  
Epoch 35723/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0299 - accuracy:  
0.9602  
Epoch 35724/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy:  
0.9601  
Epoch 35725/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9595  
Epoch 35726/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9594  
Epoch 35727/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0296 - accuracy:  
0.9597  
Epoch 35728/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9605  
Epoch 35729/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9595  
Epoch 35730/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy:  
0.9589  
Epoch 35731/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9604  
Epoch 35732/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0295 - accuracy:  
0.9594  
Epoch 35733/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0290 - accuracy:  
0.9590  
Epoch 35734/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy:  
0.9594  
Epoch 35735/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9603  
Epoch 35736/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9596  
Epoch 35737/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9598  
Epoch 35738/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0301 - accuracy:  
0.9596  
Epoch 35739/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9591  
Epoch 35740/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9600  
Epoch 35741/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9599  
Epoch 35742/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9596  
Epoch 35743/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9596  
Epoch 35744/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9588  
Epoch 35745/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9597  
Epoch 35746/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9587  
Epoch 35747/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0296 - accuracy:  
0.9585  
Epoch 35748/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9611  
Epoch 35749/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9594  
Epoch 35750/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9599  
Epoch 35751/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9590  
Epoch 35752/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy:  
0.9596  
Epoch 35753/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0300 - accuracy:  
0.9600  
Epoch 35754/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9599  
Epoch 35755/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9586  
Epoch 35756/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9597  
Epoch 35757/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9599  
Epoch 35758/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0338 - accuracy:  
0.9592  
Epoch 35759/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy:  
0.9603  
Epoch 35760/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0321 - accuracy: 0.9593  
Epoch 35761/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0313 - accuracy: 0.9600  
Epoch 35762/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy: 0.9588  
Epoch 35763/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy: 0.9602  
Epoch 35764/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9597  
Epoch 35765/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy: 0.9597  
Epoch 35766/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9601  
Epoch 35767/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0304 - accuracy: 0.9604  
Epoch 35768/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy: 0.9592  
Epoch 35769/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9598  
Epoch 35770/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0297 - accuracy: 0.9593  
Epoch 35771/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0292 - accuracy: 0.9584  
Epoch 35772/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0297 - accuracy: 0.9602  
Epoch 35773/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy: 0.9595  
Epoch 35774/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy: 0.9589  
Epoch 35775/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy: 0.9596  
Epoch 35776/100000



2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy: 0.9592  
 Epoch 35777/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9589  
 Epoch 35778/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy: 0.9596  
 Epoch 35779/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0312 - accuracy: 0.9593  
 Epoch 35780/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9604  
 Epoch 35781/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0309 - accuracy: 0.9597  
 Epoch 35782/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9598  
 Epoch 35783/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0311 - accuracy: 0.9594  
 Epoch 35784/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy: 0.9588  
 Epoch 35785/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0312 - accuracy: 0.9589  
 Epoch 35786/100000  
 2/2 [=====] - 0s 122ms/step - loss: 0.0307 - accuracy: 0.9596  
 Epoch 35787/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy: 0.9599  
 Epoch 35788/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9606  
 Epoch 35789/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0304 - accuracy: 0.9593  
 Epoch 35790/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9605  
 Epoch 35791/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy: 0.9601  
 Epoch 35792/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9589  
Epoch 35793/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9599  
Epoch 35794/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9599  
Epoch 35795/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9601  
Epoch 35796/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9600  
Epoch 35797/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9600  
Epoch 35798/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0294 - accuracy:  
0.9597  
Epoch 35799/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
0.9592  
Epoch 35800/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy:  
0.9606  
Epoch 35801/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
0.9593  
Epoch 35802/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9595  
Epoch 35803/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9595  
Epoch 35804/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0296 - accuracy:  
0.9602  
Epoch 35805/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0296 - accuracy:  
0.9599  
Epoch 35806/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy:  
0.9600  
Epoch 35807/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0304 - accuracy:  
0.9600  
Epoch 35808/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0293 - accuracy:  
0.9587  
Epoch 35809/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9597  
Epoch 35810/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9606  
Epoch 35811/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9592  
Epoch 35812/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9607  
Epoch 35813/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9597  
Epoch 35814/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9600  
Epoch 35815/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9592  
Epoch 35816/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0305 - accuracy:  
0.9596  
Epoch 35817/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9590  
Epoch 35818/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9605  
Epoch 35819/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9593  
Epoch 35820/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9605  
Epoch 35821/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9592  
Epoch 35822/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9586  
Epoch 35823/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9590  
Epoch 35824/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9593  
Epoch 35825/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9605  
Epoch 35826/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9595  
Epoch 35827/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9588  
Epoch 35828/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9585  
Epoch 35829/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0295 - accuracy:  
0.9592  
Epoch 35830/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9596  
Epoch 35831/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0291 - accuracy:  
0.9599  
Epoch 35832/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy:  
0.9596  
Epoch 35833/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy:  
0.9600  
Epoch 35834/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9603  
Epoch 35835/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9606  
Epoch 35836/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0303 - accuracy:  
0.9602  
Epoch 35837/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy:  
0.9596  
Epoch 35838/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9596  
Epoch 35839/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9600  
Epoch 35840/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9594  
Epoch 35841/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9600  
Epoch 35842/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9609  
Epoch 35843/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0305 - accuracy:  
0.9596  
Epoch 35844/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9598  
Epoch 35845/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0308 - accuracy:  
0.9597  
Epoch 35846/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9601  
Epoch 35847/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9599  
Epoch 35848/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9596  
Epoch 35849/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9594  
Epoch 35850/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9591  
Epoch 35851/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy:  
0.9590  
Epoch 35852/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy:  
0.9592  
Epoch 35853/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9594  
Epoch 35854/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9596  
Epoch 35855/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9589  
Epoch 35856/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9602  
Epoch 35857/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9593  
Epoch 35858/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9602  
Epoch 35859/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0299 - accuracy:  
0.9600  
Epoch 35860/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9602  
Epoch 35861/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9597  
Epoch 35862/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9593  
Epoch 35863/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9607  
Epoch 35864/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9595  
Epoch 35865/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9595  
Epoch 35866/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9604  
Epoch 35867/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9591  
Epoch 35868/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9593  
Epoch 35869/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9597  
Epoch 35870/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9588  
Epoch 35871/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9607  
Epoch 35872/100000

2/2 [=====] - 0s 120ms/step - loss: 0.0310 - accuracy:  
0.9594  
Epoch 35873/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9594  
Epoch 35874/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9597  
Epoch 35875/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9598  
Epoch 35876/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9601  
Epoch 35877/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0310 - accuracy:  
0.9605  
Epoch 35878/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9593  
Epoch 35879/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0302 - accuracy:  
0.9605  
Epoch 35880/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9601  
Epoch 35881/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9588  
Epoch 35882/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9601  
Epoch 35883/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9603  
Epoch 35884/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0297 - accuracy:  
0.9598  
Epoch 35885/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9586  
Epoch 35886/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9594  
Epoch 35887/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy:  
0.9597  
Epoch 35888/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0296 - accuracy:  
0.9605  
Epoch 35889/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9603  
Epoch 35890/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9601  
Epoch 35891/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9592  
Epoch 35892/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9592  
Epoch 35893/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9596  
Epoch 35894/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9604  
Epoch 35895/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9597  
Epoch 35896/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9596  
Epoch 35897/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9596  
Epoch 35898/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9609  
Epoch 35899/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9586  
Epoch 35900/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9602  
Epoch 35901/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9592  
Epoch 35902/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9601  
Epoch 35903/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9587  
Epoch 35904/100000



2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy: 0.9594  
Epoch 35905/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy: 0.9590  
Epoch 35906/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9595  
Epoch 35907/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9593  
Epoch 35908/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy: 0.9594  
Epoch 35909/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9601  
Epoch 35910/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0298 - accuracy: 0.9594  
Epoch 35911/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9599  
Epoch 35912/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy: 0.9588  
Epoch 35913/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0301 - accuracy: 0.9595  
Epoch 35914/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy: 0.9601  
Epoch 35915/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9597  
Epoch 35916/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy: 0.9603  
Epoch 35917/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9599  
Epoch 35918/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0302 - accuracy: 0.9606  
Epoch 35919/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9598  
Epoch 35920/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9600  
Epoch 35921/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy:  
0.9598  
Epoch 35922/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9613  
Epoch 35923/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9587  
Epoch 35924/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9600  
Epoch 35925/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0313 - accuracy:  
0.9598  
Epoch 35926/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9607  
Epoch 35927/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9588  
Epoch 35928/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9591  
Epoch 35929/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9601  
Epoch 35930/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0293 - accuracy:  
0.9592  
Epoch 35931/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0296 - accuracy:  
0.9605  
Epoch 35932/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0297 - accuracy:  
0.9600  
Epoch 35933/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9599  
Epoch 35934/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9592  
Epoch 35935/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9586  
Epoch 35936/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy:  
0.9601  
Epoch 35937/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9604  
Epoch 35938/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9602  
Epoch 35939/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy:  
0.9599  
Epoch 35940/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9591  
Epoch 35941/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0304 - accuracy:  
0.9584  
Epoch 35942/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9590  
Epoch 35943/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9591  
Epoch 35944/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9599  
Epoch 35945/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9595  
Epoch 35946/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy:  
0.9587  
Epoch 35947/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9598  
Epoch 35948/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9600  
Epoch 35949/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9588  
Epoch 35950/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9593  
Epoch 35951/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9593  
Epoch 35952/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy: 0.9596  
Epoch 35953/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9607  
Epoch 35954/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9597  
Epoch 35955/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy: 0.9590  
Epoch 35956/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9601  
Epoch 35957/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0300 - accuracy: 0.9585  
Epoch 35958/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0300 - accuracy: 0.9597  
Epoch 35959/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy: 0.9596  
Epoch 35960/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy: 0.9608  
Epoch 35961/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy: 0.9593  
Epoch 35962/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy: 0.9602  
Epoch 35963/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0296 - accuracy: 0.9594  
Epoch 35964/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0302 - accuracy: 0.9597  
Epoch 35965/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9593  
Epoch 35966/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9600  
Epoch 35967/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0300 - accuracy: 0.9601  
Epoch 35968/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9593  
Epoch 35969/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9589  
Epoch 35970/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9601  
Epoch 35971/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9600  
Epoch 35972/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9607  
Epoch 35973/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9605  
Epoch 35974/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9597  
Epoch 35975/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9597  
Epoch 35976/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9593  
Epoch 35977/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9599  
Epoch 35978/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9602  
Epoch 35979/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9602  
Epoch 35980/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9602  
Epoch 35981/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9594  
Epoch 35982/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9597  
Epoch 35983/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0296 - accuracy:  
0.9590  
Epoch 35984/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9591  
Epoch 35985/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9595  
Epoch 35986/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0296 - accuracy:  
0.9608  
Epoch 35987/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9601  
Epoch 35988/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9595  
Epoch 35989/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy:  
0.9591  
Epoch 35990/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9598  
Epoch 35991/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9599  
Epoch 35992/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9595  
Epoch 35993/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9592  
Epoch 35994/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy:  
0.9598  
Epoch 35995/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9602  
Epoch 35996/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9602  
Epoch 35997/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9599  
Epoch 35998/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9600  
Epoch 35999/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9592  
Epoch 36000/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9602  
Epoch 36001/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9591  
Epoch 36002/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9605  
Epoch 36003/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9601  
Epoch 36004/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy:  
0.9590  
Epoch 36005/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9594  
Epoch 36006/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9597  
Epoch 36007/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9598  
Epoch 36008/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9596  
Epoch 36009/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9595  
Epoch 36010/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9597  
Epoch 36011/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9605  
Epoch 36012/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9602  
Epoch 36013/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9596  
Epoch 36014/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0298 - accuracy:  
0.9600  
Epoch 36015/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9595  
Epoch 36016/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy:  
0.9600  
Epoch 36017/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9598  
Epoch 36018/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9600  
Epoch 36019/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9596  
Epoch 36020/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9590  
Epoch 36021/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
0.9586  
Epoch 36022/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0296 - accuracy:  
0.9594  
Epoch 36023/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0293 - accuracy:  
0.9601  
Epoch 36024/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9589  
Epoch 36025/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9603  
Epoch 36026/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0290 - accuracy:  
0.9594  
Epoch 36027/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9601  
Epoch 36028/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9590  
Epoch 36029/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9594  
Epoch 36030/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
0.9584  
Epoch 36031/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9598  
Epoch 36032/100000



2/2 [=====] - 0s 121ms/step - loss: 0.0298 - accuracy: 0.9586  
Epoch 36033/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy: 0.9600  
Epoch 36034/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0298 - accuracy: 0.9606  
Epoch 36035/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy: 0.9592  
Epoch 36036/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9596  
Epoch 36037/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy: 0.9597  
Epoch 36038/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0295 - accuracy: 0.9596  
Epoch 36039/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0296 - accuracy: 0.9597  
Epoch 36040/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy: 0.9595  
Epoch 36041/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9594  
Epoch 36042/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9593  
Epoch 36043/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9603  
Epoch 36044/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9603  
Epoch 36045/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9602  
Epoch 36046/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy: 0.9598  
Epoch 36047/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy: 0.9605  
Epoch 36048/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0300 - accuracy: 0.9596  
Epoch 36049/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy: 0.9598  
Epoch 36050/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy: 0.9598  
Epoch 36051/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9595  
Epoch 36052/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy: 0.9602  
Epoch 36053/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy: 0.9598  
Epoch 36054/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9595  
Epoch 36055/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9603  
Epoch 36056/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy: 0.9594  
Epoch 36057/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0303 - accuracy: 0.9603  
Epoch 36058/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy: 0.9604  
Epoch 36059/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9592  
Epoch 36060/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0310 - accuracy: 0.9601  
Epoch 36061/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0305 - accuracy: 0.9592  
Epoch 36062/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9597  
Epoch 36063/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy: 0.9607  
Epoch 36064/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9605  
Epoch 36065/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9597  
Epoch 36066/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9589  
Epoch 36067/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9597  
Epoch 36068/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0300 - accuracy:  
0.9596  
Epoch 36069/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9592  
Epoch 36070/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9591  
Epoch 36071/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
0.9591  
Epoch 36072/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9604  
Epoch 36073/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy:  
0.9597  
Epoch 36074/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0295 - accuracy:  
0.9607  
Epoch 36075/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9599  
Epoch 36076/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9602  
Epoch 36077/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0295 - accuracy:  
0.9602  
Epoch 36078/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9599  
Epoch 36079/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9602  
Epoch 36080/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy: 0.9590  
Epoch 36081/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0301 - accuracy: 0.9601  
Epoch 36082/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy: 0.9595  
Epoch 36083/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy: 0.9603  
Epoch 36084/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9599  
Epoch 36085/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy: 0.9603  
Epoch 36086/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0300 - accuracy: 0.9602  
Epoch 36087/100000  
2/2 [=====] - 0s 127ms/step - loss: 0.0313 - accuracy: 0.9603  
Epoch 36088/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0326 - accuracy: 0.9597  
Epoch 36089/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9598  
Epoch 36090/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy: 0.9593  
Epoch 36091/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9597  
Epoch 36092/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0309 - accuracy: 0.9601  
Epoch 36093/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0303 - accuracy: 0.9604  
Epoch 36094/100000  
2/2 [=====] - 0s 127ms/step - loss: 0.0305 - accuracy: 0.9588  
Epoch 36095/100000  
2/2 [=====] - 0s 126ms/step - loss: 0.0298 - accuracy: 0.9578  
Epoch 36096/100000

2/2 [=====] - 0s 130ms/step - loss: 0.0307 - accuracy:  
0.9601  
Epoch 36097/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0303 - accuracy:  
0.9597  
Epoch 36098/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0300 - accuracy:  
0.9595  
Epoch 36099/100000  
2/2 [=====] - 0s 126ms/step - loss: 0.0304 - accuracy:  
0.9593  
Epoch 36100/100000  
2/2 [=====] - 0s 126ms/step - loss: 0.0305 - accuracy:  
0.9598  
Epoch 36101/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9606  
Epoch 36102/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0298 - accuracy:  
0.9600  
Epoch 36103/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9594  
Epoch 36104/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9594  
Epoch 36105/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9592  
Epoch 36106/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9590  
Epoch 36107/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy:  
0.9593  
Epoch 36108/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0310 - accuracy:  
0.9594  
Epoch 36109/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0307 - accuracy:  
0.9601  
Epoch 36110/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9603  
Epoch 36111/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9601  
Epoch 36112/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9596  
Epoch 36113/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0300 - accuracy:  
0.9600  
Epoch 36114/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9597  
Epoch 36115/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9601  
Epoch 36116/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9584  
Epoch 36117/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
0.9590  
Epoch 36118/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9600  
Epoch 36119/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9593  
Epoch 36120/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9591  
Epoch 36121/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0295 - accuracy:  
0.9598  
Epoch 36122/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9592  
Epoch 36123/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9597  
Epoch 36124/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0304 - accuracy:  
0.9592  
Epoch 36125/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9595  
Epoch 36126/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9605  
Epoch 36127/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy:  
0.9607  
Epoch 36128/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9582  
Epoch 36129/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy: 0.9604  
Epoch 36130/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy: 0.9593  
Epoch 36131/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy: 0.9592  
Epoch 36132/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy: 0.9584  
Epoch 36133/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy: 0.9603  
Epoch 36134/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy: 0.9602  
Epoch 36135/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy: 0.9602  
Epoch 36136/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy: 0.9604  
Epoch 36137/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9601  
Epoch 36138/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0307 - accuracy: 0.9598  
Epoch 36139/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy: 0.9596  
Epoch 36140/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9598  
Epoch 36141/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9595  
Epoch 36142/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9591  
Epoch 36143/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy: 0.9595  
Epoch 36144/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9596  
Epoch 36145/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9591  
Epoch 36146/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0312 - accuracy:  
0.9600  
Epoch 36147/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9589  
Epoch 36148/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9592  
Epoch 36149/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9596  
Epoch 36150/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9584  
Epoch 36151/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9611  
Epoch 36152/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9595  
Epoch 36153/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9598  
Epoch 36154/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0298 - accuracy:  
0.9591  
Epoch 36155/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9592  
Epoch 36156/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0309 - accuracy:  
0.9596  
Epoch 36157/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9583  
Epoch 36158/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0302 - accuracy:  
0.9600  
Epoch 36159/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9596  
Epoch 36160/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9599  
Epoch 36161/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0301 - accuracy: 0.9593  
Epoch 36162/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9602  
Epoch 36163/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy: 0.9590  
Epoch 36164/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy: 0.9602  
Epoch 36165/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9602  
Epoch 36166/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9599  
Epoch 36167/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy: 0.9595  
Epoch 36168/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0298 - accuracy: 0.9591  
Epoch 36169/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy: 0.9586  
Epoch 36170/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0298 - accuracy: 0.9598  
Epoch 36171/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy: 0.9599  
Epoch 36172/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9607  
Epoch 36173/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy: 0.9596  
Epoch 36174/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy: 0.9606  
Epoch 36175/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy: 0.9594  
Epoch 36176/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9598  
Epoch 36177/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy: 0.9587  
Epoch 36178/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9593  
Epoch 36179/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9606  
Epoch 36180/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy: 0.9589  
Epoch 36181/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy: 0.9600  
Epoch 36182/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy: 0.9602  
Epoch 36183/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy: 0.9591  
Epoch 36184/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy: 0.9601  
Epoch 36185/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy: 0.9595  
Epoch 36186/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9596  
Epoch 36187/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy: 0.9593  
Epoch 36188/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9598  
Epoch 36189/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy: 0.9596  
Epoch 36190/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9591  
Epoch 36191/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy: 0.9596  
Epoch 36192/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0296 - accuracy:  
0.9592  
Epoch 36193/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9593  
Epoch 36194/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9594  
Epoch 36195/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0295 - accuracy:  
0.9597  
Epoch 36196/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9604  
Epoch 36197/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9598  
Epoch 36198/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9602  
Epoch 36199/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
0.9588  
Epoch 36200/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9597  
Epoch 36201/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9596  
Epoch 36202/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9598  
Epoch 36203/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy:  
0.9593  
Epoch 36204/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9594  
Epoch 36205/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0296 - accuracy:  
0.9590  
Epoch 36206/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9597  
Epoch 36207/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy:  
0.9596  
Epoch 36208/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy: 0.9587  
Epoch 36209/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9601  
Epoch 36210/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9594  
Epoch 36211/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy: 0.9595  
Epoch 36212/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0299 - accuracy: 0.9598  
Epoch 36213/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy: 0.9596  
Epoch 36214/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0311 - accuracy: 0.9590  
Epoch 36215/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0302 - accuracy: 0.9599  
Epoch 36216/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy: 0.9604  
Epoch 36217/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy: 0.9594  
Epoch 36218/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9596  
Epoch 36219/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy: 0.9597  
Epoch 36220/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy: 0.9597  
Epoch 36221/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0302 - accuracy: 0.9597  
Epoch 36222/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0311 - accuracy: 0.9600  
Epoch 36223/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9599  
Epoch 36224/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9588  
Epoch 36225/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9595  
Epoch 36226/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9599  
Epoch 36227/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9596  
Epoch 36228/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9596  
Epoch 36229/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9593  
Epoch 36230/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9596  
Epoch 36231/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9599  
Epoch 36232/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9598  
Epoch 36233/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9586  
Epoch 36234/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9601  
Epoch 36235/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9598  
Epoch 36236/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy:  
0.9593  
Epoch 36237/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy:  
0.9603  
Epoch 36238/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy:  
0.9595  
Epoch 36239/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy:  
0.9597  
Epoch 36240/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy: 0.9602  
 Epoch 36241/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy: 0.9589  
 Epoch 36242/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy: 0.9602  
 Epoch 36243/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9604  
 Epoch 36244/100000  
 2/2 [=====] - 0s 129ms/step - loss: 0.0294 - accuracy: 0.9593  
 Epoch 36245/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9603  
 Epoch 36246/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9586  
 Epoch 36247/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy: 0.9599  
 Epoch 36248/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9603  
 Epoch 36249/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9601  
 Epoch 36250/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy: 0.9595  
 Epoch 36251/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy: 0.9590  
 Epoch 36252/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy: 0.9591  
 Epoch 36253/100000  
 2/2 [=====] - 0s 120ms/step - loss: 0.0294 - accuracy: 0.9592  
 Epoch 36254/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy: 0.9598  
 Epoch 36255/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9597  
 Epoch 36256/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9600  
Epoch 36257/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9589  
Epoch 36258/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0299 - accuracy:  
0.9595  
Epoch 36259/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9590  
Epoch 36260/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9603  
Epoch 36261/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0297 - accuracy:  
0.9589  
Epoch 36262/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9591  
Epoch 36263/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9602  
Epoch 36264/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9597  
Epoch 36265/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0293 - accuracy:  
0.9589  
Epoch 36266/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy:  
0.9598  
Epoch 36267/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9597  
Epoch 36268/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9587  
Epoch 36269/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0292 - accuracy:  
0.9601  
Epoch 36270/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy:  
0.9585  
Epoch 36271/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0293 - accuracy:  
0.9599  
Epoch 36272/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy: 0.9591  
Epoch 36273/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy: 0.9596  
Epoch 36274/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy: 0.9598  
Epoch 36275/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0297 - accuracy: 0.9597  
Epoch 36276/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy: 0.9593  
Epoch 36277/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9597  
Epoch 36278/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9593  
Epoch 36279/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9591  
Epoch 36280/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy: 0.9603  
Epoch 36281/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy: 0.9603  
Epoch 36282/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9598  
Epoch 36283/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy: 0.9590  
Epoch 36284/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0302 - accuracy: 0.9599  
Epoch 36285/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9597  
Epoch 36286/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy: 0.9599  
Epoch 36287/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy: 0.9601  
Epoch 36288/100000



2/2 [=====] - 0s 118ms/step - loss: 0.0299 - accuracy:  
0.9590  
Epoch 36289/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9593  
Epoch 36290/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9607  
Epoch 36291/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9599  
Epoch 36292/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9603  
Epoch 36293/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9608  
Epoch 36294/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9601  
Epoch 36295/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
0.9595  
Epoch 36296/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9603  
Epoch 36297/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy:  
0.9599  
Epoch 36298/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9594  
Epoch 36299/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9594  
Epoch 36300/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9600  
Epoch 36301/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9585  
Epoch 36302/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0304 - accuracy:  
0.9615  
Epoch 36303/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9601  
Epoch 36304/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9606  
Epoch 36305/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9596  
Epoch 36306/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
0.9597  
Epoch 36307/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9597  
Epoch 36308/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy:  
0.9595  
Epoch 36309/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9597  
Epoch 36310/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9603  
Epoch 36311/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0295 - accuracy:  
0.9597  
Epoch 36312/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0294 - accuracy:  
0.9598  
Epoch 36313/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0291 - accuracy:  
0.9584  
Epoch 36314/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0300 - accuracy:  
0.9593  
Epoch 36315/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0294 - accuracy:  
0.9597  
Epoch 36316/100000  
2/2 [=====] - 0s 127ms/step - loss: 0.0300 - accuracy:  
0.9598  
Epoch 36317/100000  
2/2 [=====] - 0s 126ms/step - loss: 0.0299 - accuracy:  
0.9599  
Epoch 36318/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0299 - accuracy:  
0.9602  
Epoch 36319/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9593  
Epoch 36320/100000

2/2 [=====] - 0s 119ms/step - loss: 0.0296 - accuracy:  
0.9599  
Epoch 36321/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
0.9593  
Epoch 36322/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9602  
Epoch 36323/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9597  
Epoch 36324/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9598  
Epoch 36325/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9603  
Epoch 36326/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9600  
Epoch 36327/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9590  
Epoch 36328/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9596  
Epoch 36329/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9594  
Epoch 36330/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9601  
Epoch 36331/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9594  
Epoch 36332/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0304 - accuracy:  
0.9600  
Epoch 36333/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9592  
Epoch 36334/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0298 - accuracy:  
0.9595  
Epoch 36335/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9601  
Epoch 36336/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9597  
Epoch 36337/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9601  
Epoch 36338/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9592  
Epoch 36339/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9594  
Epoch 36340/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9594  
Epoch 36341/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9594  
Epoch 36342/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9602  
Epoch 36343/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0298 - accuracy:  
0.9607  
Epoch 36344/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9588  
Epoch 36345/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9585  
Epoch 36346/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9603  
Epoch 36347/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9597  
Epoch 36348/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0310 - accuracy:  
0.9602  
Epoch 36349/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy:  
0.9598  
Epoch 36350/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9587  
Epoch 36351/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9585  
Epoch 36352/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0304 - accuracy: 0.9596  
Epoch 36353/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9592  
Epoch 36354/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0307 - accuracy: 0.9606  
Epoch 36355/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9589  
Epoch 36356/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0312 - accuracy: 0.9593  
Epoch 36357/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy: 0.9601  
Epoch 36358/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy: 0.9596  
Epoch 36359/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy: 0.9594  
Epoch 36360/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9593  
Epoch 36361/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0294 - accuracy: 0.9591  
Epoch 36362/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy: 0.9595  
Epoch 36363/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy: 0.9601  
Epoch 36364/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy: 0.9599  
Epoch 36365/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy: 0.9590  
Epoch 36366/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0299 - accuracy: 0.9597  
Epoch 36367/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy: 0.9601  
Epoch 36368/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9596  
Epoch 36369/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9604  
Epoch 36370/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9596  
Epoch 36371/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy:  
0.9586  
Epoch 36372/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0317 - accuracy:  
0.9595  
Epoch 36373/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9592  
Epoch 36374/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9596  
Epoch 36375/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9595  
Epoch 36376/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9592  
Epoch 36377/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0304 - accuracy:  
0.9586  
Epoch 36378/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9588  
Epoch 36379/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy:  
0.9599  
Epoch 36380/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy:  
0.9603  
Epoch 36381/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0304 - accuracy:  
0.9585  
Epoch 36382/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9591  
Epoch 36383/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9598  
Epoch 36384/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9601  
Epoch 36385/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9593  
Epoch 36386/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9594  
Epoch 36387/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0309 - accuracy:  
0.9596  
Epoch 36388/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0309 - accuracy:  
0.9592  
Epoch 36389/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9591  
Epoch 36390/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9592  
Epoch 36391/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9602  
Epoch 36392/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9599  
Epoch 36393/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9594  
Epoch 36394/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9599  
Epoch 36395/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9596  
Epoch 36396/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9598  
Epoch 36397/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9588  
Epoch 36398/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9600  
Epoch 36399/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9592  
Epoch 36400/100000

2/2 [=====] - 0s 119ms/step - loss: 0.0298 - accuracy: 0.9602  
Epoch 36401/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy: 0.9602  
Epoch 36402/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9587  
Epoch 36403/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9595  
Epoch 36404/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9592  
Epoch 36405/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy: 0.9586  
Epoch 36406/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0295 - accuracy: 0.9587  
Epoch 36407/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy: 0.9597  
Epoch 36408/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9600  
Epoch 36409/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0299 - accuracy: 0.9590  
Epoch 36410/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy: 0.9605  
Epoch 36411/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0296 - accuracy: 0.9601  
Epoch 36412/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy: 0.9596  
Epoch 36413/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9602  
Epoch 36414/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9596  
Epoch 36415/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0295 - accuracy: 0.9590  
Epoch 36416/100000



2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9593  
Epoch 36417/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9593  
Epoch 36418/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy:  
0.9591  
Epoch 36419/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9600  
Epoch 36420/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9608  
Epoch 36421/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9595  
Epoch 36422/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9600  
Epoch 36423/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0302 - accuracy:  
0.9591  
Epoch 36424/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9606  
Epoch 36425/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9592  
Epoch 36426/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9590  
Epoch 36427/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9596  
Epoch 36428/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9606  
Epoch 36429/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9604  
Epoch 36430/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9592  
Epoch 36431/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0296 - accuracy:  
0.9596  
Epoch 36432/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0311 - accuracy: 0.9597  
Epoch 36433/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0304 - accuracy: 0.9599  
Epoch 36434/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy: 0.9587  
Epoch 36435/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9599  
Epoch 36436/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9590  
Epoch 36437/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0309 - accuracy: 0.9590  
Epoch 36438/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9595  
Epoch 36439/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9597  
Epoch 36440/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9596  
Epoch 36441/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9604  
Epoch 36442/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9593  
Epoch 36443/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0297 - accuracy: 0.9591  
Epoch 36444/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy: 0.9601  
Epoch 36445/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9591  
Epoch 36446/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0294 - accuracy: 0.9596  
Epoch 36447/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy: 0.9605  
Epoch 36448/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy: 0.9594  
Epoch 36449/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9598  
Epoch 36450/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy: 0.9593  
Epoch 36451/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy: 0.9590  
Epoch 36452/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9596  
Epoch 36453/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9595  
Epoch 36454/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy: 0.9590  
Epoch 36455/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9606  
Epoch 36456/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0296 - accuracy: 0.9602  
Epoch 36457/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy: 0.9604  
Epoch 36458/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9594  
Epoch 36459/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy: 0.9598  
Epoch 36460/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9601  
Epoch 36461/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0299 - accuracy: 0.9601  
Epoch 36462/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy: 0.9597  
Epoch 36463/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0293 - accuracy: 0.9591  
Epoch 36464/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9590  
Epoch 36465/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy: 0.9584  
Epoch 36466/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy: 0.9600  
Epoch 36467/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0299 - accuracy: 0.9599  
Epoch 36468/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy: 0.9597  
Epoch 36469/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9596  
Epoch 36470/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0313 - accuracy: 0.9613  
Epoch 36471/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy: 0.9592  
Epoch 36472/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy: 0.9591  
Epoch 36473/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9596  
Epoch 36474/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9600  
Epoch 36475/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0301 - accuracy: 0.9601  
Epoch 36476/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0310 - accuracy: 0.9603  
Epoch 36477/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy: 0.9596  
Epoch 36478/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0298 - accuracy: 0.9594  
Epoch 36479/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy: 0.9606  
Epoch 36480/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9586  
Epoch 36481/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0296 - accuracy:  
0.9585  
Epoch 36482/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0302 - accuracy:  
0.9593  
Epoch 36483/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9595  
Epoch 36484/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9602  
Epoch 36485/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9605  
Epoch 36486/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9593  
Epoch 36487/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9602  
Epoch 36488/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9590  
Epoch 36489/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0303 - accuracy:  
0.9604  
Epoch 36490/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0305 - accuracy:  
0.9603  
Epoch 36491/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9602  
Epoch 36492/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9593  
Epoch 36493/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9596  
Epoch 36494/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0304 - accuracy:  
0.9599  
Epoch 36495/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0300 - accuracy:  
0.9592  
Epoch 36496/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9589  
Epoch 36497/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0309 - accuracy:  
0.9610  
Epoch 36498/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy:  
0.9596  
Epoch 36499/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0297 - accuracy:  
0.9598  
Epoch 36500/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0312 - accuracy:  
0.9591  
Epoch 36501/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9599  
Epoch 36502/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9587  
Epoch 36503/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9596  
Epoch 36504/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9600  
Epoch 36505/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy:  
0.9590  
Epoch 36506/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0293 - accuracy:  
0.9596  
Epoch 36507/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0289 - accuracy:  
0.9595  
Epoch 36508/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0296 - accuracy:  
0.9589  
Epoch 36509/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9599  
Epoch 36510/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
0.9588  
Epoch 36511/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9596  
Epoch 36512/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9597  
 Epoch 36513/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy: 0.9586  
 Epoch 36514/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy: 0.9601  
 Epoch 36515/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy: 0.9598  
 Epoch 36516/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy: 0.9594  
 Epoch 36517/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9603  
 Epoch 36518/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0295 - accuracy: 0.9601  
 Epoch 36519/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy: 0.9594  
 Epoch 36520/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0323 - accuracy: 0.9599  
 Epoch 36521/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy: 0.9593  
 Epoch 36522/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy: 0.9606  
 Epoch 36523/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy: 0.9604  
 Epoch 36524/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0302 - accuracy: 0.9588  
 Epoch 36525/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy: 0.9601  
 Epoch 36526/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy: 0.9601  
 Epoch 36527/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9604  
 Epoch 36528/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9593  
Epoch 36529/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0301 - accuracy:  
0.9597  
Epoch 36530/100000  
2/2 [=====] - 0s 129ms/step - loss: 0.0298 - accuracy:  
0.9593  
Epoch 36531/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0302 - accuracy:  
0.9606  
Epoch 36532/100000  
2/2 [=====] - 0s 131ms/step - loss: 0.0303 - accuracy:  
0.9597  
Epoch 36533/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0309 - accuracy:  
0.9599  
Epoch 36534/100000  
2/2 [=====] - 0s 130ms/step - loss: 0.0304 - accuracy:  
0.9595  
Epoch 36535/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9592  
Epoch 36536/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9598  
Epoch 36537/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9597  
Epoch 36538/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9594  
Epoch 36539/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0300 - accuracy:  
0.9601  
Epoch 36540/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9600  
Epoch 36541/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9593  
Epoch 36542/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9603  
Epoch 36543/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9602  
Epoch 36544/100000



2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9596  
Epoch 36545/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9597  
Epoch 36546/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0300 - accuracy:  
0.9593  
Epoch 36547/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9595  
Epoch 36548/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9600  
Epoch 36549/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
0.9596  
Epoch 36550/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0299 - accuracy:  
0.9600  
Epoch 36551/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9600  
Epoch 36552/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9601  
Epoch 36553/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9595  
Epoch 36554/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy:  
0.9597  
Epoch 36555/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9600  
Epoch 36556/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9599  
Epoch 36557/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9601  
Epoch 36558/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9598  
Epoch 36559/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy:  
0.9595  
Epoch 36560/100000

2/2 [=====] - 0s 119ms/step - loss: 0.0293 - accuracy:  
0.9602  
Epoch 36561/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0290 - accuracy:  
0.9600  
Epoch 36562/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0295 - accuracy:  
0.9602  
Epoch 36563/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0298 - accuracy:  
0.9604  
Epoch 36564/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy:  
0.9597  
Epoch 36565/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9597  
Epoch 36566/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy:  
0.9595  
Epoch 36567/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy:  
0.9594  
Epoch 36568/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9592  
Epoch 36569/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9595  
Epoch 36570/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0303 - accuracy:  
0.9596  
Epoch 36571/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0305 - accuracy:  
0.9596  
Epoch 36572/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9595  
Epoch 36573/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0297 - accuracy:  
0.9601  
Epoch 36574/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy:  
0.9597  
Epoch 36575/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0301 - accuracy:  
0.9597  
Epoch 36576/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9597  
Epoch 36577/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9589  
Epoch 36578/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0304 - accuracy: 0.9598  
Epoch 36579/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9602  
Epoch 36580/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy: 0.9591  
Epoch 36581/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy: 0.9602  
Epoch 36582/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0304 - accuracy: 0.9590  
Epoch 36583/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0318 - accuracy: 0.9599  
Epoch 36584/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9587  
Epoch 36585/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9596  
Epoch 36586/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0307 - accuracy: 0.9593  
Epoch 36587/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy: 0.9598  
Epoch 36588/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy: 0.9601  
Epoch 36589/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9598  
Epoch 36590/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy: 0.9589  
Epoch 36591/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9595  
Epoch 36592/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9594  
Epoch 36593/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9596  
Epoch 36594/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9599  
Epoch 36595/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0301 - accuracy:  
0.9594  
Epoch 36596/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0309 - accuracy:  
0.9599  
Epoch 36597/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9601  
Epoch 36598/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9584  
Epoch 36599/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9597  
Epoch 36600/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0309 - accuracy:  
0.9605  
Epoch 36601/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9596  
Epoch 36602/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9595  
Epoch 36603/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0300 - accuracy:  
0.9600  
Epoch 36604/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9615  
Epoch 36605/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9594  
Epoch 36606/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0304 - accuracy:  
0.9602  
Epoch 36607/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9593  
Epoch 36608/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy: 0.9592  
Epoch 36609/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0306 - accuracy: 0.9595  
Epoch 36610/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0302 - accuracy: 0.9595  
Epoch 36611/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy: 0.9590  
Epoch 36612/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy: 0.9592  
Epoch 36613/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0296 - accuracy: 0.9591  
Epoch 36614/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy: 0.9598  
Epoch 36615/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy: 0.9596  
Epoch 36616/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy: 0.9589  
Epoch 36617/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy: 0.9598  
Epoch 36618/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy: 0.9597  
Epoch 36619/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy: 0.9600  
Epoch 36620/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy: 0.9596  
Epoch 36621/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy: 0.9593  
Epoch 36622/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9595  
Epoch 36623/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy: 0.9597  
Epoch 36624/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy: 0.9586  
Epoch 36625/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy: 0.9594  
Epoch 36626/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0296 - accuracy: 0.9595  
Epoch 36627/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9594  
Epoch 36628/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9597  
Epoch 36629/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9601  
Epoch 36630/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy: 0.9590  
Epoch 36631/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9600  
Epoch 36632/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy: 0.9602  
Epoch 36633/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy: 0.9602  
Epoch 36634/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9595  
Epoch 36635/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0309 - accuracy: 0.9599  
Epoch 36636/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy: 0.9598  
Epoch 36637/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9598  
Epoch 36638/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy: 0.9592  
Epoch 36639/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9595  
Epoch 36640/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9598  
Epoch 36641/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0302 - accuracy:  
0.9594  
Epoch 36642/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9603  
Epoch 36643/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9589  
Epoch 36644/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0299 - accuracy:  
0.9600  
Epoch 36645/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9593  
Epoch 36646/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9597  
Epoch 36647/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9590  
Epoch 36648/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9598  
Epoch 36649/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9593  
Epoch 36650/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9600  
Epoch 36651/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9601  
Epoch 36652/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9591  
Epoch 36653/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9601  
Epoch 36654/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9599  
Epoch 36655/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9593  
Epoch 36656/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9604  
Epoch 36657/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9586  
Epoch 36658/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0301 - accuracy:  
0.9606  
Epoch 36659/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9593  
Epoch 36660/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9597  
Epoch 36661/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9607  
Epoch 36662/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9605  
Epoch 36663/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0313 - accuracy:  
0.9603  
Epoch 36664/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9594  
Epoch 36665/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9594  
Epoch 36666/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9603  
Epoch 36667/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy:  
0.9597  
Epoch 36668/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9595  
Epoch 36669/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9594  
Epoch 36670/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9593  
Epoch 36671/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9594  
Epoch 36672/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9589  
Epoch 36673/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9601  
Epoch 36674/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9586  
Epoch 36675/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9598  
Epoch 36676/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0293 - accuracy:  
0.9588  
Epoch 36677/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0296 - accuracy:  
0.9598  
Epoch 36678/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9597  
Epoch 36679/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0298 - accuracy:  
0.9595  
Epoch 36680/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9601  
Epoch 36681/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9600  
Epoch 36682/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9595  
Epoch 36683/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy:  
0.9601  
Epoch 36684/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9603  
Epoch 36685/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9597  
Epoch 36686/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9600  
Epoch 36687/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9598  
Epoch 36688/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9590  
Epoch 36689/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9598  
Epoch 36690/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9599  
Epoch 36691/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9594  
Epoch 36692/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0297 - accuracy:  
0.9587  
Epoch 36693/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9592  
Epoch 36694/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
0.9591  
Epoch 36695/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9596  
Epoch 36696/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9598  
Epoch 36697/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9603  
Epoch 36698/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9592  
Epoch 36699/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy:  
0.9594  
Epoch 36700/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0295 - accuracy:  
0.9596  
Epoch 36701/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9597  
Epoch 36702/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0295 - accuracy:  
0.9597  
Epoch 36703/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy:  
0.9594  
Epoch 36704/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9592  
Epoch 36705/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9608  
Epoch 36706/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy:  
0.9597  
Epoch 36707/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9590  
Epoch 36708/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9602  
Epoch 36709/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy:  
0.9592  
Epoch 36710/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9601  
Epoch 36711/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9598  
Epoch 36712/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9599  
Epoch 36713/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9607  
Epoch 36714/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9594  
Epoch 36715/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0299 - accuracy:  
0.9591  
Epoch 36716/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9599  
Epoch 36717/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9599  
Epoch 36718/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy:  
0.9594  
Epoch 36719/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9592  
Epoch 36720/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9588  
Epoch 36721/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy: 0.9604  
Epoch 36722/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9591  
Epoch 36723/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy: 0.9594  
Epoch 36724/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy: 0.9593  
Epoch 36725/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy: 0.9596  
Epoch 36726/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy: 0.9586  
Epoch 36727/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0308 - accuracy: 0.9602  
Epoch 36728/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9606  
Epoch 36729/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9593  
Epoch 36730/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0307 - accuracy: 0.9604  
Epoch 36731/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy: 0.9603  
Epoch 36732/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9590  
Epoch 36733/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy: 0.9598  
Epoch 36734/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy: 0.9606  
Epoch 36735/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy: 0.9592  
Epoch 36736/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9589  
Epoch 36737/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy:  
0.9598  
Epoch 36738/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9589  
Epoch 36739/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9601  
Epoch 36740/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9597  
Epoch 36741/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9591  
Epoch 36742/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9590  
Epoch 36743/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9590  
Epoch 36744/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9598  
Epoch 36745/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0296 - accuracy:  
0.9594  
Epoch 36746/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9597  
Epoch 36747/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9596  
Epoch 36748/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0295 - accuracy:  
0.9592  
Epoch 36749/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9599  
Epoch 36750/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9608  
Epoch 36751/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9601  
Epoch 36752/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy: 0.9594  
Epoch 36753/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy: 0.9600  
Epoch 36754/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0309 - accuracy: 0.9596  
Epoch 36755/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy: 0.9599  
Epoch 36756/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9603  
Epoch 36757/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0317 - accuracy: 0.9595  
Epoch 36758/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0323 - accuracy: 0.9603  
Epoch 36759/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy: 0.9603  
Epoch 36760/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0315 - accuracy: 0.9585  
Epoch 36761/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy: 0.9599  
Epoch 36762/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9593  
Epoch 36763/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy: 0.9594  
Epoch 36764/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0309 - accuracy: 0.9605  
Epoch 36765/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9604  
Epoch 36766/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy: 0.9595  
Epoch 36767/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy: 0.9596  
Epoch 36768/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9593  
Epoch 36769/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9600  
Epoch 36770/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9593  
Epoch 36771/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9597  
Epoch 36772/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9595  
Epoch 36773/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy:  
0.9590  
Epoch 36774/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9601  
Epoch 36775/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9598  
Epoch 36776/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9612  
Epoch 36777/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9597  
Epoch 36778/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9603  
Epoch 36779/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0309 - accuracy:  
0.9596  
Epoch 36780/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9593  
Epoch 36781/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0298 - accuracy:  
0.9604  
Epoch 36782/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9598  
Epoch 36783/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9596  
Epoch 36784/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy: 0.9591  
Epoch 36785/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9601  
Epoch 36786/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy: 0.9599  
Epoch 36787/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9600  
Epoch 36788/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy: 0.9595  
Epoch 36789/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0302 - accuracy: 0.9599  
Epoch 36790/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy: 0.9607  
Epoch 36791/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy: 0.9602  
Epoch 36792/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy: 0.9604  
Epoch 36793/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy: 0.9592  
Epoch 36794/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9610  
Epoch 36795/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0294 - accuracy: 0.9599  
Epoch 36796/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0297 - accuracy: 0.9593  
Epoch 36797/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy: 0.9594  
Epoch 36798/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy: 0.9601  
Epoch 36799/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy: 0.9596  
Epoch 36800/100000



2/2 [=====] - 0s 117ms/step - loss: 0.0296 - accuracy: 0.9590  
Epoch 36801/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0301 - accuracy: 0.9597  
Epoch 36802/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy: 0.9593  
Epoch 36803/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9601  
Epoch 36804/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0295 - accuracy: 0.9588  
Epoch 36805/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9597  
Epoch 36806/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0293 - accuracy: 0.9585  
Epoch 36807/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy: 0.9600  
Epoch 36808/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9597  
Epoch 36809/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy: 0.9602  
Epoch 36810/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9584  
Epoch 36811/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0293 - accuracy: 0.9593  
Epoch 36812/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9597  
Epoch 36813/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0299 - accuracy: 0.9596  
Epoch 36814/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy: 0.9596  
Epoch 36815/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9600  
Epoch 36816/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9590  
Epoch 36817/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9604  
Epoch 36818/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9590  
Epoch 36819/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9605  
Epoch 36820/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9591  
Epoch 36821/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9598  
Epoch 36822/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy:  
0.9597  
Epoch 36823/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0293 - accuracy:  
0.9592  
Epoch 36824/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy:  
0.9591  
Epoch 36825/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9591  
Epoch 36826/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy:  
0.9590  
Epoch 36827/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9592  
Epoch 36828/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0300 - accuracy:  
0.9600  
Epoch 36829/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9594  
Epoch 36830/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9601  
Epoch 36831/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9599  
Epoch 36832/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9596  
Epoch 36833/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0293 - accuracy:  
0.9595  
Epoch 36834/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9599  
Epoch 36835/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9601  
Epoch 36836/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9604  
Epoch 36837/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy:  
0.9603  
Epoch 36838/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9606  
Epoch 36839/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9599  
Epoch 36840/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy:  
0.9605  
Epoch 36841/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0311 - accuracy:  
0.9600  
Epoch 36842/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9598  
Epoch 36843/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9597  
Epoch 36844/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy:  
0.9597  
Epoch 36845/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9592  
Epoch 36846/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9603  
Epoch 36847/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9605  
Epoch 36848/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy:  
0.9588  
Epoch 36849/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9599  
Epoch 36850/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0308 - accuracy:  
0.9607  
Epoch 36851/100000  
2/2 [=====] - 0s 129ms/step - loss: 0.0306 - accuracy:  
0.9600  
Epoch 36852/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0302 - accuracy:  
0.9602  
Epoch 36853/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0307 - accuracy:  
0.9596  
Epoch 36854/100000  
2/2 [=====] - 0s 126ms/step - loss: 0.0307 - accuracy:  
0.9599  
Epoch 36855/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0307 - accuracy:  
0.9591  
Epoch 36856/100000  
2/2 [=====] - 0s 126ms/step - loss: 0.0301 - accuracy:  
0.9599  
Epoch 36857/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0300 - accuracy:  
0.9602  
Epoch 36858/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0295 - accuracy:  
0.9599  
Epoch 36859/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9588  
Epoch 36860/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9596  
Epoch 36861/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0297 - accuracy:  
0.9598  
Epoch 36862/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0295 - accuracy:  
0.9598  
Epoch 36863/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0296 - accuracy:  
0.9596  
Epoch 36864/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9598  
Epoch 36865/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9589  
Epoch 36866/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9601  
Epoch 36867/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9602  
Epoch 36868/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9595  
Epoch 36869/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0292 - accuracy:  
0.9588  
Epoch 36870/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy:  
0.9603  
Epoch 36871/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9597  
Epoch 36872/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9597  
Epoch 36873/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9596  
Epoch 36874/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9595  
Epoch 36875/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9592  
Epoch 36876/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9588  
Epoch 36877/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9599  
Epoch 36878/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9601  
Epoch 36879/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9593  
Epoch 36880/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9601  
Epoch 36881/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9596  
Epoch 36882/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9599  
Epoch 36883/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9598  
Epoch 36884/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9594  
Epoch 36885/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9595  
Epoch 36886/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy:  
0.9589  
Epoch 36887/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy:  
0.9593  
Epoch 36888/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy:  
0.9593  
Epoch 36889/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9598  
Epoch 36890/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9600  
Epoch 36891/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9599  
Epoch 36892/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
0.9588  
Epoch 36893/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0294 - accuracy:  
0.9598  
Epoch 36894/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
0.9582  
Epoch 36895/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9586  
Epoch 36896/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9592  
Epoch 36897/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0296 - accuracy:  
0.9590  
Epoch 36898/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
0.9592  
Epoch 36899/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9591  
Epoch 36900/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9606  
Epoch 36901/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9603  
Epoch 36902/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9595  
Epoch 36903/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9599  
Epoch 36904/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9593  
Epoch 36905/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9591  
Epoch 36906/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9594  
Epoch 36907/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0304 - accuracy:  
0.9596  
Epoch 36908/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9593  
Epoch 36909/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9604  
Epoch 36910/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9601  
Epoch 36911/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9589  
Epoch 36912/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy: 0.9598  
Epoch 36913/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy: 0.9592  
Epoch 36914/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy: 0.9599  
Epoch 36915/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9607  
Epoch 36916/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy: 0.9606  
Epoch 36917/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy: 0.9604  
Epoch 36918/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy: 0.9594  
Epoch 36919/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy: 0.9590  
Epoch 36920/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9588  
Epoch 36921/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9597  
Epoch 36922/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy: 0.9596  
Epoch 36923/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9597  
Epoch 36924/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0296 - accuracy: 0.9595  
Epoch 36925/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9605  
Epoch 36926/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy: 0.9603  
Epoch 36927/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy: 0.9594  
Epoch 36928/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9596  
Epoch 36929/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0309 - accuracy:  
0.9597  
Epoch 36930/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0300 - accuracy:  
0.9600  
Epoch 36931/100000  
2/2 [=====] - 0s 131ms/step - loss: 0.0299 - accuracy:  
0.9602  
Epoch 36932/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0303 - accuracy:  
0.9595  
Epoch 36933/100000  
2/2 [=====] - 0s 128ms/step - loss: 0.0303 - accuracy:  
0.9595  
Epoch 36934/100000  
2/2 [=====] - 0s 131ms/step - loss: 0.0297 - accuracy:  
0.9600  
Epoch 36935/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0298 - accuracy:  
0.9594  
Epoch 36936/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9599  
Epoch 36937/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9598  
Epoch 36938/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
0.9595  
Epoch 36939/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9601  
Epoch 36940/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0293 - accuracy:  
0.9596  
Epoch 36941/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy:  
0.9588  
Epoch 36942/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy:  
0.9601  
Epoch 36943/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
0.9591  
Epoch 36944/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9597  
Epoch 36945/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy:  
0.9598  
Epoch 36946/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9595  
Epoch 36947/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9596  
Epoch 36948/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9594  
Epoch 36949/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy:  
0.9599  
Epoch 36950/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy:  
0.9598  
Epoch 36951/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9594  
Epoch 36952/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9590  
Epoch 36953/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9589  
Epoch 36954/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9591  
Epoch 36955/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy:  
0.9601  
Epoch 36956/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9602  
Epoch 36957/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9609  
Epoch 36958/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
0.9597  
Epoch 36959/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0296 - accuracy:  
0.9594  
Epoch 36960/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0294 - accuracy: 0.9596  
Epoch 36961/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9608  
Epoch 36962/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy: 0.9600  
Epoch 36963/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy: 0.9601  
Epoch 36964/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0290 - accuracy: 0.9589  
Epoch 36965/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy: 0.9592  
Epoch 36966/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0296 - accuracy: 0.9603  
Epoch 36967/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0293 - accuracy: 0.9596  
Epoch 36968/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy: 0.9601  
Epoch 36969/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9592  
Epoch 36970/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9596  
Epoch 36971/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9585  
Epoch 36972/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy: 0.9593  
Epoch 36973/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9589  
Epoch 36974/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9598  
Epoch 36975/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy: 0.9602  
Epoch 36976/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy:  
0.9598  
Epoch 36977/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9591  
Epoch 36978/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9592  
Epoch 36979/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9602  
Epoch 36980/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9594  
Epoch 36981/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9606  
Epoch 36982/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9592  
Epoch 36983/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9598  
Epoch 36984/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0300 - accuracy:  
0.9603  
Epoch 36985/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0306 - accuracy:  
0.9595  
Epoch 36986/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9595  
Epoch 36987/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9590  
Epoch 36988/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9601  
Epoch 36989/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0315 - accuracy:  
0.9597  
Epoch 36990/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9590  
Epoch 36991/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9603  
Epoch 36992/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9592  
Epoch 36993/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy:  
0.9599  
Epoch 36994/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0304 - accuracy:  
0.9594  
Epoch 36995/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9592  
Epoch 36996/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9600  
Epoch 36997/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9597  
Epoch 36998/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0302 - accuracy:  
0.9599  
Epoch 36999/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0296 - accuracy:  
0.9590  
Epoch 37000/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9604  
Epoch 37001/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy:  
0.9590  
Epoch 37002/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9592  
Epoch 37003/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9598  
Epoch 37004/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9600  
Epoch 37005/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0295 - accuracy:  
0.9591  
Epoch 37006/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9592  
Epoch 37007/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9595  
Epoch 37008/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9601  
Epoch 37009/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy:  
0.9601  
Epoch 37010/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0297 - accuracy:  
0.9588  
Epoch 37011/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9598  
Epoch 37012/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9593  
Epoch 37013/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9596  
Epoch 37014/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy:  
0.9603  
Epoch 37015/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy:  
0.9584  
Epoch 37016/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9598  
Epoch 37017/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9593  
Epoch 37018/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9591  
Epoch 37019/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9602  
Epoch 37020/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9599  
Epoch 37021/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0304 - accuracy:  
0.9595  
Epoch 37022/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9595  
Epoch 37023/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9595  
Epoch 37024/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9602  
Epoch 37025/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0295 - accuracy:  
0.9593  
Epoch 37026/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9601  
Epoch 37027/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy:  
0.9589  
Epoch 37028/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9598  
Epoch 37029/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9591  
Epoch 37030/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy:  
0.9598  
Epoch 37031/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0312 - accuracy:  
0.9593  
Epoch 37032/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0312 - accuracy:  
0.9598  
Epoch 37033/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0310 - accuracy:  
0.9596  
Epoch 37034/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9592  
Epoch 37035/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0310 - accuracy:  
0.9604  
Epoch 37036/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9604  
Epoch 37037/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9605  
Epoch 37038/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9596  
Epoch 37039/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9595  
Epoch 37040/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9594  
Epoch 37041/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9591  
Epoch 37042/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9598  
Epoch 37043/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9595  
Epoch 37044/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9599  
Epoch 37045/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9588  
Epoch 37046/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0300 - accuracy:  
0.9597  
Epoch 37047/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9594  
Epoch 37048/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9602  
Epoch 37049/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9599  
Epoch 37050/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9592  
Epoch 37051/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9604  
Epoch 37052/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy:  
0.9585  
Epoch 37053/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9599  
Epoch 37054/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9592  
Epoch 37055/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy:  
0.9605  
Epoch 37056/100000



2/2 [=====] - 0s 114ms/step - loss: 0.0309 - accuracy:  
0.9593  
Epoch 37057/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9603  
Epoch 37058/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9593  
Epoch 37059/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9600  
Epoch 37060/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9602  
Epoch 37061/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9597  
Epoch 37062/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy:  
0.9589  
Epoch 37063/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9604  
Epoch 37064/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9597  
Epoch 37065/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9599  
Epoch 37066/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
0.9597  
Epoch 37067/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9601  
Epoch 37068/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9585  
Epoch 37069/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9593  
Epoch 37070/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9601  
Epoch 37071/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy:  
0.9594  
Epoch 37072/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9610  
Epoch 37073/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0315 - accuracy:  
0.9599  
Epoch 37074/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9597  
Epoch 37075/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0309 - accuracy:  
0.9604  
Epoch 37076/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0304 - accuracy:  
0.9598  
Epoch 37077/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9593  
Epoch 37078/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9595  
Epoch 37079/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9597  
Epoch 37080/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9606  
Epoch 37081/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9599  
Epoch 37082/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9590  
Epoch 37083/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9600  
Epoch 37084/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9597  
Epoch 37085/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy:  
0.9588  
Epoch 37086/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9597  
Epoch 37087/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy:  
0.9591  
Epoch 37088/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy: 0.9597  
Epoch 37089/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9603  
Epoch 37090/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy: 0.9596  
Epoch 37091/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0295 - accuracy: 0.9595  
Epoch 37092/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy: 0.9594  
Epoch 37093/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy: 0.9595  
Epoch 37094/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9592  
Epoch 37095/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy: 0.9596  
Epoch 37096/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0298 - accuracy: 0.9597  
Epoch 37097/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy: 0.9586  
Epoch 37098/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9605  
Epoch 37099/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0305 - accuracy: 0.9596  
Epoch 37100/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0308 - accuracy: 0.9601  
Epoch 37101/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9600  
Epoch 37102/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy: 0.9587  
Epoch 37103/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy: 0.9589  
Epoch 37104/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9598  
Epoch 37105/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0298 - accuracy: 0.9598  
Epoch 37106/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9588  
Epoch 37107/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy: 0.9595  
Epoch 37108/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy: 0.9595  
Epoch 37109/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9599  
Epoch 37110/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy: 0.9592  
Epoch 37111/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9600  
Epoch 37112/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy: 0.9596  
Epoch 37113/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy: 0.9593  
Epoch 37114/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy: 0.9600  
Epoch 37115/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy: 0.9599  
Epoch 37116/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9593  
Epoch 37117/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0314 - accuracy: 0.9593  
Epoch 37118/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0321 - accuracy: 0.9607  
Epoch 37119/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9593  
Epoch 37120/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9594  
Epoch 37121/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9586  
Epoch 37122/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9594  
Epoch 37123/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9600  
Epoch 37124/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9592  
Epoch 37125/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy:  
0.9595  
Epoch 37126/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9601  
Epoch 37127/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9588  
Epoch 37128/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9596  
Epoch 37129/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9601  
Epoch 37130/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9596  
Epoch 37131/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9586  
Epoch 37132/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0300 - accuracy:  
0.9591  
Epoch 37133/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9603  
Epoch 37134/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9592  
Epoch 37135/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9589  
Epoch 37136/100000

2/2 [=====] - 0s 119ms/step - loss: 0.0296 - accuracy: 0.9607  
Epoch 37137/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9599  
Epoch 37138/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy: 0.9602  
Epoch 37139/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9593  
Epoch 37140/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0319 - accuracy: 0.9596  
Epoch 37141/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0317 - accuracy: 0.9599  
Epoch 37142/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9598  
Epoch 37143/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9600  
Epoch 37144/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9597  
Epoch 37145/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9587  
Epoch 37146/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy: 0.9603  
Epoch 37147/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy: 0.9598  
Epoch 37148/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy: 0.9597  
Epoch 37149/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0297 - accuracy: 0.9593  
Epoch 37150/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9593  
Epoch 37151/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy: 0.9598  
Epoch 37152/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9590  
Epoch 37153/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy:  
0.9596  
Epoch 37154/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0295 - accuracy:  
0.9593  
Epoch 37155/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9597  
Epoch 37156/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy:  
0.9597  
Epoch 37157/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9603  
Epoch 37158/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9599  
Epoch 37159/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9587  
Epoch 37160/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9597  
Epoch 37161/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy:  
0.9598  
Epoch 37162/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9590  
Epoch 37163/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9598  
Epoch 37164/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9599  
Epoch 37165/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9598  
Epoch 37166/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9595  
Epoch 37167/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9591  
Epoch 37168/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0303 - accuracy:  
0.9595  
Epoch 37169/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9597  
Epoch 37170/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0310 - accuracy:  
0.9609  
Epoch 37171/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9592  
Epoch 37172/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy:  
0.9605  
Epoch 37173/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9588  
Epoch 37174/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9586  
Epoch 37175/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9593  
Epoch 37176/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9604  
Epoch 37177/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9597  
Epoch 37178/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9599  
Epoch 37179/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9599  
Epoch 37180/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9598  
Epoch 37181/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9602  
Epoch 37182/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0294 - accuracy:  
0.9587  
Epoch 37183/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9597  
Epoch 37184/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9599  
Epoch 37185/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9591  
Epoch 37186/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0312 - accuracy:  
0.9597  
Epoch 37187/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9595  
Epoch 37188/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0297 - accuracy:  
0.9591  
Epoch 37189/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9596  
Epoch 37190/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9589  
Epoch 37191/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9592  
Epoch 37192/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9597  
Epoch 37193/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9608  
Epoch 37194/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9594  
Epoch 37195/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9600  
Epoch 37196/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9609  
Epoch 37197/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9595  
Epoch 37198/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9592  
Epoch 37199/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0305 - accuracy:  
0.9598  
Epoch 37200/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9596  
Epoch 37201/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9599  
Epoch 37202/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9596  
Epoch 37203/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9601  
Epoch 37204/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0294 - accuracy:  
0.9597  
Epoch 37205/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9601  
Epoch 37206/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9603  
Epoch 37207/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9597  
Epoch 37208/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9596  
Epoch 37209/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9599  
Epoch 37210/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9597  
Epoch 37211/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9600  
Epoch 37212/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9599  
Epoch 37213/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0295 - accuracy:  
0.9591  
Epoch 37214/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9599  
Epoch 37215/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9599  
Epoch 37216/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9598  
Epoch 37217/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9608  
Epoch 37218/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9601  
Epoch 37219/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9602  
Epoch 37220/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0303 - accuracy:  
0.9602  
Epoch 37221/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9600  
Epoch 37222/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9597  
Epoch 37223/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9596  
Epoch 37224/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9596  
Epoch 37225/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9596  
Epoch 37226/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9598  
Epoch 37227/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9590  
Epoch 37228/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9588  
Epoch 37229/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9603  
Epoch 37230/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9592  
Epoch 37231/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0299 - accuracy:  
0.9590  
Epoch 37232/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9598  
Epoch 37233/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9599  
Epoch 37234/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9597  
Epoch 37235/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9598  
Epoch 37236/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0296 - accuracy:  
0.9594  
Epoch 37237/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9594  
Epoch 37238/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9598  
Epoch 37239/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy:  
0.9590  
Epoch 37240/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9606  
Epoch 37241/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9587  
Epoch 37242/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy:  
0.9603  
Epoch 37243/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9594  
Epoch 37244/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9591  
Epoch 37245/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0299 - accuracy:  
0.9584  
Epoch 37246/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9596  
Epoch 37247/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0298 - accuracy:  
0.9592  
Epoch 37248/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9594  
Epoch 37249/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9590  
Epoch 37250/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy: 0.9584  
Epoch 37251/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9591  
Epoch 37252/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0298 - accuracy: 0.9592  
Epoch 37253/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9605  
Epoch 37254/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy: 0.9602  
Epoch 37255/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9608  
Epoch 37256/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy: 0.9594  
Epoch 37257/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0298 - accuracy: 0.9597  
Epoch 37258/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy: 0.9596  
Epoch 37259/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy: 0.9591  
Epoch 37260/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy: 0.9596  
Epoch 37261/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9592  
Epoch 37262/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy: 0.9604  
Epoch 37263/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy: 0.9601  
Epoch 37264/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy: 0.9591  
 Epoch 37265/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy: 0.9593  
 Epoch 37266/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy: 0.9592  
 Epoch 37267/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9596  
 Epoch 37268/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9595  
 Epoch 37269/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy: 0.9601  
 Epoch 37270/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0301 - accuracy: 0.9604  
 Epoch 37271/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy: 0.9596  
 Epoch 37272/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9597  
 Epoch 37273/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0293 - accuracy: 0.9595  
 Epoch 37274/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0292 - accuracy: 0.9599  
 Epoch 37275/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy: 0.9600  
 Epoch 37276/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9590  
 Epoch 37277/100000  
 2/2 [=====] - 0s 120ms/step - loss: 0.0297 - accuracy: 0.9591  
 Epoch 37278/100000  
 2/2 [=====] - 0s 120ms/step - loss: 0.0295 - accuracy: 0.9602  
 Epoch 37279/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9594  
 Epoch 37280/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9592  
Epoch 37281/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9602  
Epoch 37282/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9595  
Epoch 37283/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0300 - accuracy:  
0.9597  
Epoch 37284/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0297 - accuracy:  
0.9595  
Epoch 37285/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9595  
Epoch 37286/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0304 - accuracy:  
0.9594  
Epoch 37287/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0301 - accuracy:  
0.9596  
Epoch 37288/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9588  
Epoch 37289/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9591  
Epoch 37290/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0295 - accuracy:  
0.9595  
Epoch 37291/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0297 - accuracy:  
0.9590  
Epoch 37292/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9587  
Epoch 37293/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9604  
Epoch 37294/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9602  
Epoch 37295/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9590  
Epoch 37296/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9600  
Epoch 37297/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9601  
Epoch 37298/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0306 - accuracy:  
0.9598  
Epoch 37299/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9590  
Epoch 37300/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9597  
Epoch 37301/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9595  
Epoch 37302/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9590  
Epoch 37303/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9598  
Epoch 37304/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9607  
Epoch 37305/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9589  
Epoch 37306/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0310 - accuracy:  
0.9594  
Epoch 37307/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9589  
Epoch 37308/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9585  
Epoch 37309/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9601  
Epoch 37310/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9596  
Epoch 37311/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0299 - accuracy:  
0.9590  
Epoch 37312/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9593  
Epoch 37313/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9600  
Epoch 37314/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9593  
Epoch 37315/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9602  
Epoch 37316/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9590  
Epoch 37317/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9600  
Epoch 37318/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9596  
Epoch 37319/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9605  
Epoch 37320/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
0.9588  
Epoch 37321/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9595  
Epoch 37322/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9597  
Epoch 37323/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9597  
Epoch 37324/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
0.9603  
Epoch 37325/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0292 - accuracy:  
0.9594  
Epoch 37326/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
0.9597  
Epoch 37327/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0294 - accuracy:  
0.9598  
Epoch 37328/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy: 0.9595  
Epoch 37329/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0293 - accuracy: 0.9598  
Epoch 37330/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0291 - accuracy: 0.9597  
Epoch 37331/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0293 - accuracy: 0.9595  
Epoch 37332/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy: 0.9605  
Epoch 37333/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0300 - accuracy: 0.9601  
Epoch 37334/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9601  
Epoch 37335/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy: 0.9599  
Epoch 37336/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0296 - accuracy: 0.9589  
Epoch 37337/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy: 0.9596  
Epoch 37338/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy: 0.9588  
Epoch 37339/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9595  
Epoch 37340/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy: 0.9592  
Epoch 37341/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy: 0.9591  
Epoch 37342/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy: 0.9599  
Epoch 37343/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy: 0.9593  
Epoch 37344/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9596  
Epoch 37345/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9607  
Epoch 37346/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0301 - accuracy:  
0.9594  
Epoch 37347/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9589  
Epoch 37348/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9601  
Epoch 37349/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9597  
Epoch 37350/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9600  
Epoch 37351/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy:  
0.9598  
Epoch 37352/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0310 - accuracy:  
0.9597  
Epoch 37353/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9585  
Epoch 37354/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9600  
Epoch 37355/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9598  
Epoch 37356/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9593  
Epoch 37357/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9593  
Epoch 37358/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9593  
Epoch 37359/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9597  
Epoch 37360/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9590  
Epoch 37361/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9592  
Epoch 37362/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0295 - accuracy:  
0.9598  
Epoch 37363/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9602  
Epoch 37364/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9598  
Epoch 37365/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9606  
Epoch 37366/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9587  
Epoch 37367/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9595  
Epoch 37368/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9599  
Epoch 37369/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0309 - accuracy:  
0.9602  
Epoch 37370/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9601  
Epoch 37371/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9587  
Epoch 37372/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9593  
Epoch 37373/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9599  
Epoch 37374/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9588  
Epoch 37375/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9610  
Epoch 37376/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9595  
Epoch 37377/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9600  
Epoch 37378/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9604  
Epoch 37379/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9598  
Epoch 37380/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy:  
0.9596  
Epoch 37381/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9594  
Epoch 37382/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
0.9592  
Epoch 37383/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy:  
0.9596  
Epoch 37384/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9596  
Epoch 37385/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9608  
Epoch 37386/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9599  
Epoch 37387/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9598  
Epoch 37388/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9596  
Epoch 37389/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9599  
Epoch 37390/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9603  
Epoch 37391/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0297 - accuracy:  
0.9596  
Epoch 37392/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy: 0.9599  
Epoch 37393/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9602  
Epoch 37394/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy: 0.9596  
Epoch 37395/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy: 0.9590  
Epoch 37396/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy: 0.9604  
Epoch 37397/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9603  
Epoch 37398/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy: 0.9599  
Epoch 37399/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy: 0.9588  
Epoch 37400/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0302 - accuracy: 0.9602  
Epoch 37401/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9596  
Epoch 37402/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy: 0.9595  
Epoch 37403/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy: 0.9591  
Epoch 37404/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9600  
Epoch 37405/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy: 0.9596  
Epoch 37406/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy: 0.9587  
Epoch 37407/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0300 - accuracy: 0.9614  
Epoch 37408/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9603  
Epoch 37409/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9594  
Epoch 37410/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9600  
Epoch 37411/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9604  
Epoch 37412/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9599  
Epoch 37413/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9599  
Epoch 37414/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9596  
Epoch 37415/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9595  
Epoch 37416/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0298 - accuracy:  
0.9591  
Epoch 37417/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9587  
Epoch 37418/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9595  
Epoch 37419/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0301 - accuracy:  
0.9599  
Epoch 37420/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9611  
Epoch 37421/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9602  
Epoch 37422/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9594  
Epoch 37423/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9598  
Epoch 37424/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9602  
Epoch 37425/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0296 - accuracy:  
0.9603  
Epoch 37426/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9593  
Epoch 37427/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9604  
Epoch 37428/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9596  
Epoch 37429/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9591  
Epoch 37430/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9593  
Epoch 37431/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9589  
Epoch 37432/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9602  
Epoch 37433/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9601  
Epoch 37434/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0296 - accuracy:  
0.9594  
Epoch 37435/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy:  
0.9593  
Epoch 37436/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9598  
Epoch 37437/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0297 - accuracy:  
0.9592  
Epoch 37438/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9589  
Epoch 37439/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9601  
Epoch 37440/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9599  
Epoch 37441/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0295 - accuracy:  
0.9601  
Epoch 37442/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy:  
0.9601  
Epoch 37443/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9596  
Epoch 37444/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9591  
Epoch 37445/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
0.9588  
Epoch 37446/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9594  
Epoch 37447/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9599  
Epoch 37448/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9606  
Epoch 37449/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9602  
Epoch 37450/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0295 - accuracy:  
0.9598  
Epoch 37451/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9598  
Epoch 37452/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9592  
Epoch 37453/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9592  
Epoch 37454/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9593  
Epoch 37455/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0298 - accuracy:  
0.9586  
Epoch 37456/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9600  
Epoch 37457/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9599  
Epoch 37458/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0296 - accuracy:  
0.9593  
Epoch 37459/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0304 - accuracy:  
0.9596  
Epoch 37460/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9599  
Epoch 37461/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9598  
Epoch 37462/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9593  
Epoch 37463/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9592  
Epoch 37464/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9597  
Epoch 37465/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0294 - accuracy:  
0.9590  
Epoch 37466/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9613  
Epoch 37467/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0293 - accuracy:  
0.9595  
Epoch 37468/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9593  
Epoch 37469/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0297 - accuracy:  
0.9598  
Epoch 37470/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0302 - accuracy:  
0.9605  
Epoch 37471/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy:  
0.9591  
Epoch 37472/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
0.9587  
Epoch 37473/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9599  
Epoch 37474/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9593  
Epoch 37475/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9589  
Epoch 37476/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9592  
Epoch 37477/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9608  
Epoch 37478/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9590  
Epoch 37479/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9588  
Epoch 37480/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9595  
Epoch 37481/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9594  
Epoch 37482/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9591  
Epoch 37483/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9593  
Epoch 37484/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9587  
Epoch 37485/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9595  
Epoch 37486/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy:  
0.9596  
Epoch 37487/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0307 - accuracy:  
0.9604  
Epoch 37488/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0301 - accuracy:  
0.9599  
Epoch 37489/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9602  
Epoch 37490/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0293 - accuracy:  
0.9588  
Epoch 37491/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9597  
Epoch 37492/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy:  
0.9603  
Epoch 37493/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0299 - accuracy:  
0.9599  
Epoch 37494/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9596  
Epoch 37495/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9601  
Epoch 37496/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9602  
Epoch 37497/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9611  
Epoch 37498/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9605  
Epoch 37499/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9591  
Epoch 37500/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9596  
Epoch 37501/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9597  
Epoch 37502/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9595  
Epoch 37503/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9590  
Epoch 37504/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9593  
Epoch 37505/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0303 - accuracy:  
0.9610  
Epoch 37506/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9594  
Epoch 37507/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9600  
Epoch 37508/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9598  
Epoch 37509/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9591  
Epoch 37510/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9590  
Epoch 37511/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9595  
Epoch 37512/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9593  
Epoch 37513/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy:  
0.9588  
Epoch 37514/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9597  
Epoch 37515/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9599  
Epoch 37516/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9597  
Epoch 37517/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9598  
Epoch 37518/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9594  
Epoch 37519/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9595  
Epoch 37520/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9598  
Epoch 37521/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9597  
Epoch 37522/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9592  
Epoch 37523/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy: 0.9606  
Epoch 37524/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy: 0.9608  
Epoch 37525/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy: 0.9605  
Epoch 37526/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy: 0.9600  
Epoch 37527/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy: 0.9595  
Epoch 37528/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9597  
Epoch 37529/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy: 0.9596  
Epoch 37530/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9601  
Epoch 37531/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0294 - accuracy: 0.9589  
Epoch 37532/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy: 0.9596  
Epoch 37533/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy: 0.9599  
Epoch 37534/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy: 0.9595  
Epoch 37535/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy: 0.9602  
Epoch 37536/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0296 - accuracy: 0.9587  
Epoch 37537/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy: 0.9598  
Epoch 37538/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0309 - accuracy: 0.9600  
Epoch 37539/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9605  
Epoch 37540/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy: 0.9589  
Epoch 37541/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy: 0.9597  
Epoch 37542/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9594  
Epoch 37543/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0292 - accuracy: 0.9587  
Epoch 37544/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0296 - accuracy: 0.9599  
Epoch 37545/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy: 0.9606  
Epoch 37546/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9590  
Epoch 37547/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0310 - accuracy: 0.9588  
Epoch 37548/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0292 - accuracy: 0.9595  
Epoch 37549/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9588  
Epoch 37550/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9597  
Epoch 37551/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy: 0.9595  
Epoch 37552/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy:  
0.9601  
Epoch 37553/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9599  
Epoch 37554/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9601  
Epoch 37555/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0300 - accuracy:  
0.9595  
Epoch 37556/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0293 - accuracy:  
0.9593  
Epoch 37557/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy:  
0.9583  
Epoch 37558/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9598  
Epoch 37559/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9598  
Epoch 37560/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0296 - accuracy:  
0.9594  
Epoch 37561/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9598  
Epoch 37562/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9597  
Epoch 37563/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9608  
Epoch 37564/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9594  
Epoch 37565/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9598  
Epoch 37566/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9598  
Epoch 37567/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9597  
Epoch 37568/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9605  
Epoch 37569/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy:  
0.9601  
Epoch 37570/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9596  
Epoch 37571/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9601  
Epoch 37572/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9596  
Epoch 37573/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9597  
Epoch 37574/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9599  
Epoch 37575/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9599  
Epoch 37576/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9596  
Epoch 37577/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9599  
Epoch 37578/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9594  
Epoch 37579/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0293 - accuracy:  
0.9589  
Epoch 37580/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
0.9594  
Epoch 37581/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
0.9593  
Epoch 37582/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9604  
Epoch 37583/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9598  
Epoch 37584/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9597  
Epoch 37585/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0293 - accuracy:  
0.9593  
Epoch 37586/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9593  
Epoch 37587/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9583  
Epoch 37588/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9592  
Epoch 37589/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
0.9587  
Epoch 37590/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9587  
Epoch 37591/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9602  
Epoch 37592/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0302 - accuracy:  
0.9594  
Epoch 37593/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9600  
Epoch 37594/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy:  
0.9595  
Epoch 37595/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9608  
Epoch 37596/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9595  
Epoch 37597/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0299 - accuracy:  
0.9591  
Epoch 37598/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9592  
Epoch 37599/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9588  
Epoch 37600/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9599  
Epoch 37601/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0304 - accuracy:  
0.9602  
Epoch 37602/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9599  
Epoch 37603/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy:  
0.9585  
Epoch 37604/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9593  
Epoch 37605/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy:  
0.9613  
Epoch 37606/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy:  
0.9590  
Epoch 37607/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy:  
0.9600  
Epoch 37608/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0321 - accuracy:  
0.9591  
Epoch 37609/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9593  
Epoch 37610/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9591  
Epoch 37611/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0304 - accuracy:  
0.9604  
Epoch 37612/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0318 - accuracy:  
0.9591  
Epoch 37613/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy:  
0.9597  
Epoch 37614/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0321 - accuracy:  
0.9595  
Epoch 37615/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9596  
Epoch 37616/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9593  
Epoch 37617/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9590  
Epoch 37618/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0309 - accuracy:  
0.9596  
Epoch 37619/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9591  
Epoch 37620/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9599  
Epoch 37621/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0309 - accuracy:  
0.9595  
Epoch 37622/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9598  
Epoch 37623/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9595  
Epoch 37624/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9597  
Epoch 37625/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9602  
Epoch 37626/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9596  
Epoch 37627/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0299 - accuracy:  
0.9591  
Epoch 37628/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9602  
Epoch 37629/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9599  
Epoch 37630/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9603  
Epoch 37631/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9605  
Epoch 37632/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy: 0.9593  
Epoch 37633/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy: 0.9586  
Epoch 37634/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0296 - accuracy: 0.9594  
Epoch 37635/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0296 - accuracy: 0.9596  
Epoch 37636/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy: 0.9595  
Epoch 37637/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy: 0.9601  
Epoch 37638/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9598  
Epoch 37639/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9589  
Epoch 37640/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy: 0.9605  
Epoch 37641/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy: 0.9588  
Epoch 37642/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy: 0.9596  
Epoch 37643/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy: 0.9592  
Epoch 37644/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy: 0.9590  
Epoch 37645/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0321 - accuracy: 0.9596  
Epoch 37646/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy: 0.9590  
Epoch 37647/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9586  
Epoch 37648/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0324 - accuracy:  
0.9600  
Epoch 37649/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0323 - accuracy:  
0.9608  
Epoch 37650/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9585  
Epoch 37651/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy:  
0.9606  
Epoch 37652/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9600  
Epoch 37653/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9591  
Epoch 37654/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9588  
Epoch 37655/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0303 - accuracy:  
0.9596  
Epoch 37656/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy:  
0.9595  
Epoch 37657/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0303 - accuracy:  
0.9596  
Epoch 37658/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9604  
Epoch 37659/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9588  
Epoch 37660/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9595  
Epoch 37661/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9595  
Epoch 37662/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy:  
0.9594  
Epoch 37663/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9593  
Epoch 37664/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9593  
Epoch 37665/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9595  
Epoch 37666/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0309 - accuracy:  
0.9600  
Epoch 37667/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9597  
Epoch 37668/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy:  
0.9603  
Epoch 37669/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9599  
Epoch 37670/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9597  
Epoch 37671/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9596  
Epoch 37672/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9611  
Epoch 37673/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0292 - accuracy:  
0.9588  
Epoch 37674/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9596  
Epoch 37675/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9602  
Epoch 37676/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9595  
Epoch 37677/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9607  
Epoch 37678/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9602  
Epoch 37679/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
0.9598  
Epoch 37680/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0292 - accuracy: 0.9589  
Epoch 37681/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy: 0.9596  
Epoch 37682/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9600  
Epoch 37683/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy: 0.9597  
Epoch 37684/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy: 0.9603  
Epoch 37685/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0295 - accuracy: 0.9594  
Epoch 37686/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy: 0.9593  
Epoch 37687/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9600  
Epoch 37688/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy: 0.9601  
Epoch 37689/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy: 0.9608  
Epoch 37690/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0294 - accuracy: 0.9605  
Epoch 37691/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy: 0.9597  
Epoch 37692/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy: 0.9607  
Epoch 37693/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy: 0.9591  
Epoch 37694/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy: 0.9602  
Epoch 37695/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9601  
Epoch 37696/100000



2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9592  
Epoch 37697/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9589  
Epoch 37698/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9596  
Epoch 37699/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9597  
Epoch 37700/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0295 - accuracy:  
0.9597  
Epoch 37701/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0300 - accuracy:  
0.9601  
Epoch 37702/100000  
2/2 [=====] - 0s 128ms/step - loss: 0.0298 - accuracy:  
0.9599  
Epoch 37703/100000  
2/2 [=====] - 0s 132ms/step - loss: 0.0305 - accuracy:  
0.9587  
Epoch 37704/100000  
2/2 [=====] - 0s 130ms/step - loss: 0.0296 - accuracy:  
0.9594  
Epoch 37705/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0299 - accuracy:  
0.9599  
Epoch 37706/100000  
2/2 [=====] - 0s 127ms/step - loss: 0.0295 - accuracy:  
0.9602  
Epoch 37707/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0295 - accuracy:  
0.9594  
Epoch 37708/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0304 - accuracy:  
0.9591  
Epoch 37709/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9601  
Epoch 37710/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9604  
Epoch 37711/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0303 - accuracy:  
0.9597  
Epoch 37712/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9596  
Epoch 37713/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy: 0.9601  
Epoch 37714/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9597  
Epoch 37715/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy: 0.9591  
Epoch 37716/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy: 0.9594  
Epoch 37717/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy: 0.9601  
Epoch 37718/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy: 0.9606  
Epoch 37719/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0302 - accuracy: 0.9605  
Epoch 37720/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9598  
Epoch 37721/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0302 - accuracy: 0.9592  
Epoch 37722/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9599  
Epoch 37723/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0306 - accuracy: 0.9596  
Epoch 37724/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy: 0.9602  
Epoch 37725/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy: 0.9589  
Epoch 37726/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0329 - accuracy: 0.9591  
Epoch 37727/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy: 0.9587  
Epoch 37728/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9604  
Epoch 37729/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9595  
Epoch 37730/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9595  
Epoch 37731/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0311 - accuracy:  
0.9599  
Epoch 37732/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9591  
Epoch 37733/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9598  
Epoch 37734/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9606  
Epoch 37735/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9595  
Epoch 37736/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9600  
Epoch 37737/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0301 - accuracy:  
0.9588  
Epoch 37738/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0309 - accuracy:  
0.9585  
Epoch 37739/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9594  
Epoch 37740/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0299 - accuracy:  
0.9606  
Epoch 37741/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9588  
Epoch 37742/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9598  
Epoch 37743/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy:  
0.9598  
Epoch 37744/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9604  
Epoch 37745/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9600  
Epoch 37746/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9599  
Epoch 37747/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0299 - accuracy:  
0.9589  
Epoch 37748/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9588  
Epoch 37749/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9596  
Epoch 37750/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9600  
Epoch 37751/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9600  
Epoch 37752/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9603  
Epoch 37753/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0295 - accuracy:  
0.9595  
Epoch 37754/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0291 - accuracy:  
0.9589  
Epoch 37755/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy:  
0.9598  
Epoch 37756/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9598  
Epoch 37757/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0320 - accuracy:  
0.9605  
Epoch 37758/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9597  
Epoch 37759/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9598  
Epoch 37760/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9589  
Epoch 37761/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9596  
Epoch 37762/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy: 0.9597  
Epoch 37763/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9593  
Epoch 37764/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0312 - accuracy: 0.9593  
Epoch 37765/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9592  
Epoch 37766/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9592  
Epoch 37767/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9596  
Epoch 37768/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9600  
Epoch 37769/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0304 - accuracy: 0.9597  
Epoch 37770/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy: 0.9602  
Epoch 37771/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9599  
Epoch 37772/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy: 0.9594  
Epoch 37773/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9588  
Epoch 37774/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy: 0.9586  
Epoch 37775/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9598  
Epoch 37776/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9601  
Epoch 37777/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0293 - accuracy:  
0.9590  
Epoch 37778/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9593  
Epoch 37779/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9586  
Epoch 37780/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9594  
Epoch 37781/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9594  
Epoch 37782/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9603  
Epoch 37783/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9598  
Epoch 37784/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9594  
Epoch 37785/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9588  
Epoch 37786/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy:  
0.9599  
Epoch 37787/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9594  
Epoch 37788/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9589  
Epoch 37789/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy:  
0.9599  
Epoch 37790/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9601  
Epoch 37791/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9594  
Epoch 37792/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0293 - accuracy: 0.9598  
Epoch 37793/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy: 0.9602  
Epoch 37794/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0297 - accuracy: 0.9597  
Epoch 37795/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy: 0.9597  
Epoch 37796/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9603  
Epoch 37797/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0292 - accuracy: 0.9593  
Epoch 37798/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy: 0.9598  
Epoch 37799/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy: 0.9597  
Epoch 37800/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy: 0.9589  
Epoch 37801/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9590  
Epoch 37802/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy: 0.9589  
Epoch 37803/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9611  
Epoch 37804/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy: 0.9586  
Epoch 37805/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy: 0.9601  
Epoch 37806/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0290 - accuracy: 0.9591  
Epoch 37807/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy: 0.9591  
Epoch 37808/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0296 - accuracy:  
0.9599  
Epoch 37809/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9595  
Epoch 37810/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9603  
Epoch 37811/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9602  
Epoch 37812/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9608  
Epoch 37813/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0311 - accuracy:  
0.9593  
Epoch 37814/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9592  
Epoch 37815/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0299 - accuracy:  
0.9597  
Epoch 37816/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0304 - accuracy:  
0.9593  
Epoch 37817/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0297 - accuracy:  
0.9598  
Epoch 37818/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy:  
0.9594  
Epoch 37819/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9599  
Epoch 37820/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9589  
Epoch 37821/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9603  
Epoch 37822/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9611  
Epoch 37823/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy:  
0.9593  
Epoch 37824/100000



2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy: 0.9589  
Epoch 37825/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0295 - accuracy: 0.9593  
Epoch 37826/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9611  
Epoch 37827/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy: 0.9603  
Epoch 37828/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy: 0.9600  
Epoch 37829/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9604  
Epoch 37830/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0297 - accuracy: 0.9591  
Epoch 37831/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy: 0.9606  
Epoch 37832/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9598  
Epoch 37833/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9592  
Epoch 37834/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy: 0.9598  
Epoch 37835/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy: 0.9595  
Epoch 37836/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy: 0.9604  
Epoch 37837/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9606  
Epoch 37838/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0312 - accuracy: 0.9595  
Epoch 37839/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy: 0.9592  
Epoch 37840/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy: 0.9599  
Epoch 37841/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9599  
Epoch 37842/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9595  
Epoch 37843/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy: 0.9594  
Epoch 37844/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0293 - accuracy: 0.9588  
Epoch 37845/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9600  
Epoch 37846/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9596  
Epoch 37847/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9600  
Epoch 37848/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy: 0.9604  
Epoch 37849/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9591  
Epoch 37850/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy: 0.9596  
Epoch 37851/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9589  
Epoch 37852/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0295 - accuracy: 0.9588  
Epoch 37853/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy: 0.9596  
Epoch 37854/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy: 0.9594  
Epoch 37855/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy: 0.9589  
Epoch 37856/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9601  
Epoch 37857/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9603  
Epoch 37858/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy: 0.9601  
Epoch 37859/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0295 - accuracy: 0.9594  
Epoch 37860/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9589  
Epoch 37861/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9605  
Epoch 37862/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy: 0.9588  
Epoch 37863/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy: 0.9590  
Epoch 37864/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9589  
Epoch 37865/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0304 - accuracy: 0.9595  
Epoch 37866/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0300 - accuracy: 0.9595  
Epoch 37867/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9589  
Epoch 37868/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0305 - accuracy: 0.9605  
Epoch 37869/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0295 - accuracy: 0.9588  
Epoch 37870/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy: 0.9587  
Epoch 37871/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy: 0.9597  
Epoch 37872/100000

2/2 [=====] - 0s 120ms/step - loss: 0.0294 - accuracy:  
0.9582  
Epoch 37873/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
0.9595  
Epoch 37874/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9588  
Epoch 37875/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9592  
Epoch 37876/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9587  
Epoch 37877/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9596  
Epoch 37878/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9610  
Epoch 37879/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9589  
Epoch 37880/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy:  
0.9597  
Epoch 37881/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9605  
Epoch 37882/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9602  
Epoch 37883/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0295 - accuracy:  
0.9591  
Epoch 37884/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9597  
Epoch 37885/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9595  
Epoch 37886/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9596  
Epoch 37887/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0296 - accuracy:  
0.9601  
Epoch 37888/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9593  
Epoch 37889/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9601  
Epoch 37890/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9604  
Epoch 37891/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
0.9596  
Epoch 37892/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy:  
0.9599  
Epoch 37893/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy:  
0.9591  
Epoch 37894/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9590  
Epoch 37895/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9597  
Epoch 37896/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9601  
Epoch 37897/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9595  
Epoch 37898/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9596  
Epoch 37899/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9596  
Epoch 37900/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0295 - accuracy:  
0.9605  
Epoch 37901/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
0.9591  
Epoch 37902/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0295 - accuracy:  
0.9599  
Epoch 37903/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0295 - accuracy:  
0.9593  
Epoch 37904/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9587  
Epoch 37905/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9607  
Epoch 37906/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9598  
Epoch 37907/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0302 - accuracy:  
0.9599  
Epoch 37908/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9599  
Epoch 37909/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9603  
Epoch 37910/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0300 - accuracy:  
0.9591  
Epoch 37911/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9589  
Epoch 37912/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9595  
Epoch 37913/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9595  
Epoch 37914/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9602  
Epoch 37915/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9597  
Epoch 37916/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9593  
Epoch 37917/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9600  
Epoch 37918/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy:  
0.9595  
Epoch 37919/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0296 - accuracy:  
0.9598  
Epoch 37920/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9595  
Epoch 37921/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9599  
Epoch 37922/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9592  
Epoch 37923/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9589  
Epoch 37924/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9602  
Epoch 37925/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9596  
Epoch 37926/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9601  
Epoch 37927/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9598  
Epoch 37928/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9596  
Epoch 37929/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0296 - accuracy:  
0.9594  
Epoch 37930/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9598  
Epoch 37931/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0298 - accuracy:  
0.9595  
Epoch 37932/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy:  
0.9597  
Epoch 37933/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9606  
Epoch 37934/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0301 - accuracy:  
0.9590  
Epoch 37935/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9595  
Epoch 37936/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9592  
Epoch 37937/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9607  
Epoch 37938/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9595  
Epoch 37939/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9594  
Epoch 37940/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9603  
Epoch 37941/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9602  
Epoch 37942/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0292 - accuracy:  
0.9587  
Epoch 37943/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9595  
Epoch 37944/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9591  
Epoch 37945/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9600  
Epoch 37946/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9596  
Epoch 37947/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9596  
Epoch 37948/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0294 - accuracy:  
0.9588  
Epoch 37949/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9597  
Epoch 37950/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9598  
Epoch 37951/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9600  
Epoch 37952/100000



2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9593  
Epoch 37953/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0299 - accuracy:  
0.9594  
Epoch 37954/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9607  
Epoch 37955/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9599  
Epoch 37956/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9594  
Epoch 37957/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9597  
Epoch 37958/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9589  
Epoch 37959/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9604  
Epoch 37960/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9605  
Epoch 37961/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
0.9590  
Epoch 37962/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy:  
0.9598  
Epoch 37963/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9599  
Epoch 37964/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9598  
Epoch 37965/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9595  
Epoch 37966/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0305 - accuracy:  
0.9592  
Epoch 37967/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
0.9588  
Epoch 37968/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9602  
Epoch 37969/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9596  
Epoch 37970/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy:  
0.9606  
Epoch 37971/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9600  
Epoch 37972/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9589  
Epoch 37973/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9598  
Epoch 37974/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9603  
Epoch 37975/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
0.9596  
Epoch 37976/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
0.9593  
Epoch 37977/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9599  
Epoch 37978/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy:  
0.9597  
Epoch 37979/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9594  
Epoch 37980/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9598  
Epoch 37981/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0291 - accuracy:  
0.9590  
Epoch 37982/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9599  
Epoch 37983/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9599  
Epoch 37984/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9601  
Epoch 37985/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9597  
Epoch 37986/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9591  
Epoch 37987/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0310 - accuracy:  
0.9585  
Epoch 37988/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0298 - accuracy:  
0.9596  
Epoch 37989/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9593  
Epoch 37990/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0318 - accuracy:  
0.9604  
Epoch 37991/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0309 - accuracy:  
0.9597  
Epoch 37992/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9598  
Epoch 37993/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9598  
Epoch 37994/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0313 - accuracy:  
0.9613  
Epoch 37995/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy:  
0.9602  
Epoch 37996/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9600  
Epoch 37997/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9595  
Epoch 37998/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy:  
0.9592  
Epoch 37999/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0304 - accuracy:  
0.9596  
Epoch 38000/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy: 0.9597  
Epoch 38001/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy: 0.9596  
Epoch 38002/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy: 0.9595  
Epoch 38003/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9596  
Epoch 38004/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy: 0.9592  
Epoch 38005/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy: 0.9609  
Epoch 38006/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0299 - accuracy: 0.9598  
Epoch 38007/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9599  
Epoch 38008/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9601  
Epoch 38009/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0295 - accuracy: 0.9594  
Epoch 38010/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9603  
Epoch 38011/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy: 0.9595  
Epoch 38012/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy: 0.9590  
Epoch 38013/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy: 0.9603  
Epoch 38014/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9592  
Epoch 38015/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9593  
Epoch 38016/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9596  
Epoch 38017/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0298 - accuracy:  
0.9591  
Epoch 38018/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0297 - accuracy:  
0.9607  
Epoch 38019/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9597  
Epoch 38020/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0291 - accuracy:  
0.9586  
Epoch 38021/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9598  
Epoch 38022/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0306 - accuracy:  
0.9590  
Epoch 38023/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9596  
Epoch 38024/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy:  
0.9593  
Epoch 38025/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9596  
Epoch 38026/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0316 - accuracy:  
0.9590  
Epoch 38027/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9592  
Epoch 38028/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9598  
Epoch 38029/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9591  
Epoch 38030/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9602  
Epoch 38031/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9591  
Epoch 38032/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy: 0.9596  
 Epoch 38033/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0294 - accuracy: 0.9594  
 Epoch 38034/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy: 0.9586  
 Epoch 38035/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9601  
 Epoch 38036/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy: 0.9586  
 Epoch 38037/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9591  
 Epoch 38038/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy: 0.9595  
 Epoch 38039/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy: 0.9591  
 Epoch 38040/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9610  
 Epoch 38041/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0301 - accuracy: 0.9588  
 Epoch 38042/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy: 0.9602  
 Epoch 38043/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy: 0.9591  
 Epoch 38044/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy: 0.9595  
 Epoch 38045/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy: 0.9594  
 Epoch 38046/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy: 0.9602  
 Epoch 38047/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy: 0.9594  
 Epoch 38048/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9600  
Epoch 38049/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9601  
Epoch 38050/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9591  
Epoch 38051/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0315 - accuracy:  
0.9605  
Epoch 38052/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9596  
Epoch 38053/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9589  
Epoch 38054/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0309 - accuracy:  
0.9595  
Epoch 38055/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0317 - accuracy:  
0.9599  
Epoch 38056/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9599  
Epoch 38057/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9596  
Epoch 38058/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9589  
Epoch 38059/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9594  
Epoch 38060/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9591  
Epoch 38061/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9597  
Epoch 38062/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9600  
Epoch 38063/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9589  
Epoch 38064/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy:  
0.9598  
Epoch 38065/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9608  
Epoch 38066/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0295 - accuracy:  
0.9587  
Epoch 38067/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0297 - accuracy:  
0.9596  
Epoch 38068/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9597  
Epoch 38069/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy:  
0.9604  
Epoch 38070/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy:  
0.9601  
Epoch 38071/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9600  
Epoch 38072/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9597  
Epoch 38073/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy:  
0.9592  
Epoch 38074/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9592  
Epoch 38075/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9589  
Epoch 38076/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy:  
0.9601  
Epoch 38077/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9590  
Epoch 38078/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9593  
Epoch 38079/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9583  
Epoch 38080/100000



2/2 [=====] - 0s 113ms/step - loss: 0.0303 - accuracy: 0.9603  
Epoch 38081/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy: 0.9594  
Epoch 38082/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9601  
Epoch 38083/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0302 - accuracy: 0.9590  
Epoch 38084/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9595  
Epoch 38085/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy: 0.9601  
Epoch 38086/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy: 0.9599  
Epoch 38087/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy: 0.9592  
Epoch 38088/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy: 0.9595  
Epoch 38089/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9593  
Epoch 38090/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0293 - accuracy: 0.9595  
Epoch 38091/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0292 - accuracy: 0.9586  
Epoch 38092/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy: 0.9600  
Epoch 38093/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy: 0.9593  
Epoch 38094/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9601  
Epoch 38095/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9588  
Epoch 38096/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0314 - accuracy: 0.9596  
Epoch 38097/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy: 0.9597  
Epoch 38098/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0329 - accuracy: 0.9591  
Epoch 38099/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy: 0.9601  
Epoch 38100/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0342 - accuracy: 0.9594  
Epoch 38101/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0338 - accuracy: 0.9603  
Epoch 38102/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0339 - accuracy: 0.9605  
Epoch 38103/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0320 - accuracy: 0.9598  
Epoch 38104/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0322 - accuracy: 0.9602  
Epoch 38105/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9596  
Epoch 38106/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9595  
Epoch 38107/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy: 0.9604  
Epoch 38108/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy: 0.9602  
Epoch 38109/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9594  
Epoch 38110/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9601  
Epoch 38111/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9597  
Epoch 38112/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy: 0.9591  
Epoch 38113/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy: 0.9595  
Epoch 38114/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy: 0.9596  
Epoch 38115/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy: 0.9599  
Epoch 38116/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9594  
Epoch 38117/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy: 0.9596  
Epoch 38118/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0295 - accuracy: 0.9593  
Epoch 38119/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy: 0.9582  
Epoch 38120/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0296 - accuracy: 0.9589  
Epoch 38121/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0293 - accuracy: 0.9598  
Epoch 38122/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy: 0.9592  
Epoch 38123/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0291 - accuracy: 0.9601  
Epoch 38124/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy: 0.9590  
Epoch 38125/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy: 0.9587  
Epoch 38126/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0296 - accuracy: 0.9598  
Epoch 38127/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0294 - accuracy: 0.9603  
Epoch 38128/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy: 0.9595  
Epoch 38129/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0292 - accuracy: 0.9587  
Epoch 38130/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9591  
Epoch 38131/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy: 0.9598  
Epoch 38132/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy: 0.9597  
Epoch 38133/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy: 0.9600  
Epoch 38134/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9592  
Epoch 38135/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9604  
Epoch 38136/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy: 0.9592  
Epoch 38137/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9592  
Epoch 38138/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy: 0.9588  
Epoch 38139/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy: 0.9591  
Epoch 38140/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9586  
Epoch 38141/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy: 0.9598  
Epoch 38142/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9612  
Epoch 38143/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy: 0.9605  
Epoch 38144/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9591  
Epoch 38145/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9598  
Epoch 38146/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0302 - accuracy:  
0.9598  
Epoch 38147/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy:  
0.9598  
Epoch 38148/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9590  
Epoch 38149/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9603  
Epoch 38150/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9592  
Epoch 38151/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9603  
Epoch 38152/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9599  
Epoch 38153/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9597  
Epoch 38154/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
0.9588  
Epoch 38155/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9595  
Epoch 38156/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9603  
Epoch 38157/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy:  
0.9604  
Epoch 38158/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9595  
Epoch 38159/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9596  
Epoch 38160/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy: 0.9595  
 Epoch 38161/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0295 - accuracy: 0.9593  
 Epoch 38162/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0293 - accuracy: 0.9601  
 Epoch 38163/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy: 0.9600  
 Epoch 38164/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9594  
 Epoch 38165/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy: 0.9590  
 Epoch 38166/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy: 0.9584  
 Epoch 38167/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy: 0.9593  
 Epoch 38168/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy: 0.9597  
 Epoch 38169/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy: 0.9607  
 Epoch 38170/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy: 0.9590  
 Epoch 38171/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy: 0.9599  
 Epoch 38172/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy: 0.9601  
 Epoch 38173/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy: 0.9602  
 Epoch 38174/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy: 0.9597  
 Epoch 38175/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy: 0.9591  
 Epoch 38176/100000

2/2 [=====] - 0s 120ms/step - loss: 0.0294 - accuracy:  
0.9593  
Epoch 38177/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9592  
Epoch 38178/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
0.9595  
Epoch 38179/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy:  
0.9585  
Epoch 38180/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0292 - accuracy:  
0.9580  
Epoch 38181/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0296 - accuracy:  
0.9596  
Epoch 38182/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9601  
Epoch 38183/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9598  
Epoch 38184/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9600  
Epoch 38185/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9603  
Epoch 38186/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9593  
Epoch 38187/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9600  
Epoch 38188/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy:  
0.9593  
Epoch 38189/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
0.9595  
Epoch 38190/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9595  
Epoch 38191/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9599  
Epoch 38192/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy: 0.9594  
Epoch 38193/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy: 0.9608  
Epoch 38194/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy: 0.9595  
Epoch 38195/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy: 0.9598  
Epoch 38196/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9603  
Epoch 38197/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9603  
Epoch 38198/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy: 0.9589  
Epoch 38199/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy: 0.9595  
Epoch 38200/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0299 - accuracy: 0.9597  
Epoch 38201/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9599  
Epoch 38202/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy: 0.9591  
Epoch 38203/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy: 0.9599  
Epoch 38204/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy: 0.9594  
Epoch 38205/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy: 0.9598  
Epoch 38206/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy: 0.9602  
Epoch 38207/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0301 - accuracy: 0.9602  
Epoch 38208/100000



2/2 [=====] - 0s 117ms/step - loss: 0.0293 - accuracy:  
0.9599  
Epoch 38209/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9600  
Epoch 38210/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy:  
0.9593  
Epoch 38211/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9595  
Epoch 38212/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9594  
Epoch 38213/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9598  
Epoch 38214/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0297 - accuracy:  
0.9596  
Epoch 38215/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9595  
Epoch 38216/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0292 - accuracy:  
0.9594  
Epoch 38217/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9600  
Epoch 38218/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9605  
Epoch 38219/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9582  
Epoch 38220/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9597  
Epoch 38221/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9597  
Epoch 38222/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9601  
Epoch 38223/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9602  
Epoch 38224/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9605  
Epoch 38225/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy:  
0.9597  
Epoch 38226/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9597  
Epoch 38227/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9595  
Epoch 38228/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9598  
Epoch 38229/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy:  
0.9589  
Epoch 38230/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9604  
Epoch 38231/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0298 - accuracy:  
0.9588  
Epoch 38232/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9594  
Epoch 38233/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9590  
Epoch 38234/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9594  
Epoch 38235/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy:  
0.9591  
Epoch 38236/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy:  
0.9586  
Epoch 38237/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9593  
Epoch 38238/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
0.9592  
Epoch 38239/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9604  
Epoch 38240/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9599  
Epoch 38241/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9592  
Epoch 38242/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9608  
Epoch 38243/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9599  
Epoch 38244/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9593  
Epoch 38245/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0298 - accuracy:  
0.9600  
Epoch 38246/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9596  
Epoch 38247/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9586  
Epoch 38248/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9601  
Epoch 38249/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9601  
Epoch 38250/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9593  
Epoch 38251/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9590  
Epoch 38252/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9591  
Epoch 38253/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9593  
Epoch 38254/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0296 - accuracy:  
0.9600  
Epoch 38255/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0292 - accuracy:  
0.9583  
Epoch 38256/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9602  
Epoch 38257/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9599  
Epoch 38258/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9592  
Epoch 38259/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0296 - accuracy:  
0.9596  
Epoch 38260/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9597  
Epoch 38261/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9585  
Epoch 38262/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9609  
Epoch 38263/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy:  
0.9593  
Epoch 38264/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0294 - accuracy:  
0.9590  
Epoch 38265/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9600  
Epoch 38266/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9591  
Epoch 38267/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9599  
Epoch 38268/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9598  
Epoch 38269/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy:  
0.9595  
Epoch 38270/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9600  
Epoch 38271/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0295 - accuracy:  
0.9599  
Epoch 38272/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9591  
Epoch 38273/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9594  
Epoch 38274/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9592  
Epoch 38275/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9596  
Epoch 38276/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0305 - accuracy:  
0.9601  
Epoch 38277/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy:  
0.9589  
Epoch 38278/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9593  
Epoch 38279/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9597  
Epoch 38280/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9595  
Epoch 38281/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9597  
Epoch 38282/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0300 - accuracy:  
0.9596  
Epoch 38283/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9600  
Epoch 38284/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9586  
Epoch 38285/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9601  
Epoch 38286/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9603  
Epoch 38287/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9598  
Epoch 38288/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9600  
Epoch 38289/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9598  
Epoch 38290/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9594  
Epoch 38291/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0304 - accuracy:  
0.9596  
Epoch 38292/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9602  
Epoch 38293/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9597  
Epoch 38294/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9586  
Epoch 38295/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy:  
0.9600  
Epoch 38296/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9597  
Epoch 38297/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9597  
Epoch 38298/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9599  
Epoch 38299/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
0.9599  
Epoch 38300/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9594  
Epoch 38301/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0299 - accuracy:  
0.9596  
Epoch 38302/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy:  
0.9587  
Epoch 38303/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0291 - accuracy:  
0.9586  
Epoch 38304/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy: 0.9605  
 Epoch 38305/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy: 0.9591  
 Epoch 38306/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9594  
 Epoch 38307/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9598  
 Epoch 38308/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0301 - accuracy: 0.9598  
 Epoch 38309/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9599  
 Epoch 38310/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0295 - accuracy: 0.9597  
 Epoch 38311/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy: 0.9589  
 Epoch 38312/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0293 - accuracy: 0.9598  
 Epoch 38313/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9586  
 Epoch 38314/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy: 0.9594  
 Epoch 38315/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy: 0.9607  
 Epoch 38316/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy: 0.9605  
 Epoch 38317/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy: 0.9600  
 Epoch 38318/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9590  
 Epoch 38319/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9606  
 Epoch 38320/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9590  
 Epoch 38321/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy: 0.9604  
 Epoch 38322/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9589  
 Epoch 38323/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9587  
 Epoch 38324/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy: 0.9593  
 Epoch 38325/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9604  
 Epoch 38326/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0294 - accuracy: 0.9599  
 Epoch 38327/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy: 0.9597  
 Epoch 38328/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9593  
 Epoch 38329/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0294 - accuracy: 0.9600  
 Epoch 38330/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy: 0.9595  
 Epoch 38331/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy: 0.9604  
 Epoch 38332/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9599  
 Epoch 38333/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9603  
 Epoch 38334/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy: 0.9606  
 Epoch 38335/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0297 - accuracy: 0.9596  
 Epoch 38336/100000



2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy:  
0.9604  
Epoch 38337/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy:  
0.9604  
Epoch 38338/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0315 - accuracy:  
0.9613  
Epoch 38339/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9589  
Epoch 38340/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0306 - accuracy:  
0.9591  
Epoch 38341/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9601  
Epoch 38342/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9598  
Epoch 38343/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy:  
0.9603  
Epoch 38344/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9603  
Epoch 38345/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9597  
Epoch 38346/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9600  
Epoch 38347/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9588  
Epoch 38348/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9593  
Epoch 38349/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9600  
Epoch 38350/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9593  
Epoch 38351/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9610  
Epoch 38352/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0296 - accuracy:  
0.9598  
Epoch 38353/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9590  
Epoch 38354/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9593  
Epoch 38355/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9596  
Epoch 38356/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9593  
Epoch 38357/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9601  
Epoch 38358/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9592  
Epoch 38359/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9601  
Epoch 38360/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy:  
0.9602  
Epoch 38361/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9590  
Epoch 38362/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9603  
Epoch 38363/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9597  
Epoch 38364/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9600  
Epoch 38365/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy:  
0.9591  
Epoch 38366/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0289 - accuracy:  
0.9595  
Epoch 38367/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9592  
Epoch 38368/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy:  
0.9592  
Epoch 38369/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
0.9595  
Epoch 38370/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9596  
Epoch 38371/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9604  
Epoch 38372/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9601  
Epoch 38373/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0296 - accuracy:  
0.9594  
Epoch 38374/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0301 - accuracy:  
0.9594  
Epoch 38375/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9596  
Epoch 38376/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9608  
Epoch 38377/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9598  
Epoch 38378/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0302 - accuracy:  
0.9598  
Epoch 38379/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9605  
Epoch 38380/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9598  
Epoch 38381/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9602  
Epoch 38382/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0300 - accuracy:  
0.9594  
Epoch 38383/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0296 - accuracy:  
0.9594  
Epoch 38384/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9583  
Epoch 38385/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9602  
Epoch 38386/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy:  
0.9584  
Epoch 38387/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0293 - accuracy:  
0.9595  
Epoch 38388/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9598  
Epoch 38389/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9586  
Epoch 38390/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9600  
Epoch 38391/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9593  
Epoch 38392/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9590  
Epoch 38393/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9599  
Epoch 38394/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9599  
Epoch 38395/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9594  
Epoch 38396/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9601  
Epoch 38397/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9594  
Epoch 38398/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0312 - accuracy:  
0.9598  
Epoch 38399/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9603  
Epoch 38400/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9603  
Epoch 38401/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9607  
Epoch 38402/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9596  
Epoch 38403/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9599  
Epoch 38404/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9594  
Epoch 38405/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0294 - accuracy:  
0.9585  
Epoch 38406/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9600  
Epoch 38407/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9594  
Epoch 38408/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9596  
Epoch 38409/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9600  
Epoch 38410/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9605  
Epoch 38411/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy:  
0.9611  
Epoch 38412/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0298 - accuracy:  
0.9588  
Epoch 38413/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9605  
Epoch 38414/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy:  
0.9599  
Epoch 38415/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9597  
Epoch 38416/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy: 0.9588  
Epoch 38417/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0293 - accuracy: 0.9594  
Epoch 38418/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0296 - accuracy: 0.9596  
Epoch 38419/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy: 0.9594  
Epoch 38420/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0293 - accuracy: 0.9599  
Epoch 38421/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy: 0.9583  
Epoch 38422/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy: 0.9586  
Epoch 38423/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9604  
Epoch 38424/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy: 0.9592  
Epoch 38425/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy: 0.9601  
Epoch 38426/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy: 0.9593  
Epoch 38427/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy: 0.9594  
Epoch 38428/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy: 0.9601  
Epoch 38429/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy: 0.9608  
Epoch 38430/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9598  
Epoch 38431/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy: 0.9595  
Epoch 38432/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9602  
Epoch 38433/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9592  
Epoch 38434/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy: 0.9606  
Epoch 38435/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy: 0.9592  
Epoch 38436/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0300 - accuracy: 0.9605  
Epoch 38437/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9592  
Epoch 38438/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy: 0.9590  
Epoch 38439/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy: 0.9591  
Epoch 38440/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0296 - accuracy: 0.9608  
Epoch 38441/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy: 0.9600  
Epoch 38442/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy: 0.9594  
Epoch 38443/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy: 0.9597  
Epoch 38444/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0302 - accuracy: 0.9596  
Epoch 38445/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9602  
Epoch 38446/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0309 - accuracy: 0.9607  
Epoch 38447/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy: 0.9595  
Epoch 38448/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9594  
Epoch 38449/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy: 0.9608  
Epoch 38450/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy: 0.9601  
Epoch 38451/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0299 - accuracy: 0.9604  
Epoch 38452/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0293 - accuracy: 0.9586  
Epoch 38453/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9587  
Epoch 38454/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy: 0.9601  
Epoch 38455/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9587  
Epoch 38456/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy: 0.9594  
Epoch 38457/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy: 0.9593  
Epoch 38458/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0302 - accuracy: 0.9599  
Epoch 38459/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy: 0.9604  
Epoch 38460/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy: 0.9592  
Epoch 38461/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy: 0.9590  
Epoch 38462/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9594  
Epoch 38463/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9608  
Epoch 38464/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9600  
Epoch 38465/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9595  
Epoch 38466/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy:  
0.9599  
Epoch 38467/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9597  
Epoch 38468/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9592  
Epoch 38469/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9587  
Epoch 38470/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9605  
Epoch 38471/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9596  
Epoch 38472/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0343 - accuracy:  
0.9603  
Epoch 38473/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
0.9591  
Epoch 38474/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0315 - accuracy:  
0.9596  
Epoch 38475/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9589  
Epoch 38476/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9589  
Epoch 38477/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0320 - accuracy:  
0.9604  
Epoch 38478/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0335 - accuracy:  
0.9605  
Epoch 38479/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0321 - accuracy:  
0.9606  
Epoch 38480/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0316 - accuracy:  
0.9587  
Epoch 38481/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9600  
Epoch 38482/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0313 - accuracy:  
0.9603  
Epoch 38483/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9601  
Epoch 38484/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9593  
Epoch 38485/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9597  
Epoch 38486/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9594  
Epoch 38487/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9595  
Epoch 38488/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9598  
Epoch 38489/100000  
2/2 [=====] - 0s 112ms/step - loss: 0.0299 - accuracy:  
0.9601  
Epoch 38490/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9590  
Epoch 38491/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9593  
Epoch 38492/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9609  
Epoch 38493/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0300 - accuracy:  
0.9599  
Epoch 38494/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9590  
Epoch 38495/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0296 - accuracy:  
0.9600  
Epoch 38496/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9595  
Epoch 38497/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9594  
Epoch 38498/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9602  
Epoch 38499/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0295 - accuracy:  
0.9598  
Epoch 38500/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0292 - accuracy:  
0.9588  
Epoch 38501/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy:  
0.9597  
Epoch 38502/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0294 - accuracy:  
0.9602  
Epoch 38503/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9599  
Epoch 38504/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9599  
Epoch 38505/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
0.9603  
Epoch 38506/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
0.9594  
Epoch 38507/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
0.9588  
Epoch 38508/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
0.9601  
Epoch 38509/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9598  
Epoch 38510/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0296 - accuracy:  
0.9593  
Epoch 38511/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy:  
0.9589  
Epoch 38512/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9591  
Epoch 38513/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9600  
Epoch 38514/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0294 - accuracy:  
0.9601  
Epoch 38515/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9608  
Epoch 38516/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9591  
Epoch 38517/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0292 - accuracy:  
0.9592  
Epoch 38518/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9587  
Epoch 38519/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9593  
Epoch 38520/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9592  
Epoch 38521/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9592  
Epoch 38522/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9600  
Epoch 38523/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9598  
Epoch 38524/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy:  
0.9600  
Epoch 38525/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9599  
Epoch 38526/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9599  
Epoch 38527/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9604  
Epoch 38528/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9596  
Epoch 38529/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9603  
Epoch 38530/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9601  
Epoch 38531/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9587  
Epoch 38532/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9595  
Epoch 38533/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9590  
Epoch 38534/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0296 - accuracy:  
0.9588  
Epoch 38535/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9598  
Epoch 38536/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9595  
Epoch 38537/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0297 - accuracy:  
0.9590  
Epoch 38538/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9597  
Epoch 38539/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9593  
Epoch 38540/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9601  
Epoch 38541/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy:  
0.9593  
Epoch 38542/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9592  
Epoch 38543/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9597  
Epoch 38544/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9604  
Epoch 38545/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy:  
0.9592  
Epoch 38546/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9597  
Epoch 38547/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9598  
Epoch 38548/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0316 - accuracy:  
0.9595  
Epoch 38549/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0310 - accuracy:  
0.9603  
Epoch 38550/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0310 - accuracy:  
0.9597  
Epoch 38551/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0324 - accuracy:  
0.9590  
Epoch 38552/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0314 - accuracy:  
0.9593  
Epoch 38553/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9597  
Epoch 38554/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9594  
Epoch 38555/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9590  
Epoch 38556/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9598  
Epoch 38557/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9602  
Epoch 38558/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9590  
Epoch 38559/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9595  
Epoch 38560/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9599  
Epoch 38561/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9599  
Epoch 38562/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9594  
Epoch 38563/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9602  
Epoch 38564/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9594  
Epoch 38565/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9605  
Epoch 38566/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9592  
Epoch 38567/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9585  
Epoch 38568/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0296 - accuracy:  
0.9590  
Epoch 38569/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy:  
0.9592  
Epoch 38570/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9598  
Epoch 38571/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9598  
Epoch 38572/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9598  
Epoch 38573/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9588  
Epoch 38574/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9601  
Epoch 38575/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0301 - accuracy:  
0.9600  
Epoch 38576/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy: 0.9600  
Epoch 38577/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9609  
Epoch 38578/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0308 - accuracy: 0.9596  
Epoch 38579/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy: 0.9593  
Epoch 38580/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy: 0.9599  
Epoch 38581/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy: 0.9596  
Epoch 38582/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9606  
Epoch 38583/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9595  
Epoch 38584/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0302 - accuracy: 0.9592  
Epoch 38585/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9603  
Epoch 38586/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0316 - accuracy: 0.9589  
Epoch 38587/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy: 0.9601  
Epoch 38588/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0312 - accuracy: 0.9603  
Epoch 38589/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy: 0.9593  
Epoch 38590/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy: 0.9595  
Epoch 38591/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9599  
Epoch 38592/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9600  
Epoch 38593/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy:  
0.9596  
Epoch 38594/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0296 - accuracy:  
0.9595  
Epoch 38595/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0291 - accuracy:  
0.9594  
Epoch 38596/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9600  
Epoch 38597/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0294 - accuracy:  
0.9603  
Epoch 38598/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9598  
Epoch 38599/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
0.9595  
Epoch 38600/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9596  
Epoch 38601/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
0.9597  
Epoch 38602/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy:  
0.9600  
Epoch 38603/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9599  
Epoch 38604/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9592  
Epoch 38605/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy:  
0.9594  
Epoch 38606/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy:  
0.9592  
Epoch 38607/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy:  
0.9601  
Epoch 38608/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9589  
Epoch 38609/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9605  
Epoch 38610/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9595  
Epoch 38611/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9591  
Epoch 38612/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0299 - accuracy:  
0.9608  
Epoch 38613/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0295 - accuracy:  
0.9601  
Epoch 38614/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9601  
Epoch 38615/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9601  
Epoch 38616/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9600  
Epoch 38617/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9595  
Epoch 38618/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0293 - accuracy:  
0.9589  
Epoch 38619/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0297 - accuracy:  
0.9594  
Epoch 38620/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9592  
Epoch 38621/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9599  
Epoch 38622/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0296 - accuracy:  
0.9593  
Epoch 38623/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9596  
Epoch 38624/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9598  
Epoch 38625/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9586  
Epoch 38626/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9598  
Epoch 38627/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9595  
Epoch 38628/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9596  
Epoch 38629/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9599  
Epoch 38630/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9604  
Epoch 38631/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy:  
0.9595  
Epoch 38632/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9592  
Epoch 38633/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9597  
Epoch 38634/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9592  
Epoch 38635/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9597  
Epoch 38636/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0296 - accuracy:  
0.9591  
Epoch 38637/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy:  
0.9590  
Epoch 38638/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9596  
Epoch 38639/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9602  
Epoch 38640/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9606  
Epoch 38641/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
0.9591  
Epoch 38642/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9599  
Epoch 38643/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9591  
Epoch 38644/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9592  
Epoch 38645/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9603  
Epoch 38646/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0310 - accuracy:  
0.9594  
Epoch 38647/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9597  
Epoch 38648/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9596  
Epoch 38649/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9588  
Epoch 38650/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0309 - accuracy:  
0.9595  
Epoch 38651/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9590  
Epoch 38652/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9599  
Epoch 38653/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9596  
Epoch 38654/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9595  
Epoch 38655/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9591  
Epoch 38656/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9601  
Epoch 38657/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy:  
0.9606  
Epoch 38658/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0298 - accuracy:  
0.9595  
Epoch 38659/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0316 - accuracy:  
0.9591  
Epoch 38660/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9596  
Epoch 38661/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9595  
Epoch 38662/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9595  
Epoch 38663/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0308 - accuracy:  
0.9595  
Epoch 38664/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9599  
Epoch 38665/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9583  
Epoch 38666/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9593  
Epoch 38667/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9590  
Epoch 38668/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9601  
Epoch 38669/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0305 - accuracy:  
0.9589  
Epoch 38670/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9590  
Epoch 38671/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9593  
Epoch 38672/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9595  
 Epoch 38673/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy: 0.9606  
 Epoch 38674/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9605  
 Epoch 38675/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0294 - accuracy: 0.9591  
 Epoch 38676/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy: 0.9602  
 Epoch 38677/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0307 - accuracy: 0.9599  
 Epoch 38678/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy: 0.9595  
 Epoch 38679/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0309 - accuracy: 0.9596  
 Epoch 38680/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9596  
 Epoch 38681/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9587  
 Epoch 38682/100000  
 2/2 [=====] - 0s 120ms/step - loss: 0.0301 - accuracy: 0.9604  
 Epoch 38683/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy: 0.9592  
 Epoch 38684/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0304 - accuracy: 0.9606  
 Epoch 38685/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9613  
 Epoch 38686/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy: 0.9589  
 Epoch 38687/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy: 0.9595  
 Epoch 38688/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9597  
Epoch 38689/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0294 - accuracy:  
0.9603  
Epoch 38690/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9601  
Epoch 38691/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0293 - accuracy:  
0.9596  
Epoch 38692/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9598  
Epoch 38693/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9601  
Epoch 38694/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy:  
0.9601  
Epoch 38695/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9601  
Epoch 38696/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy:  
0.9593  
Epoch 38697/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9604  
Epoch 38698/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0296 - accuracy:  
0.9596  
Epoch 38699/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9590  
Epoch 38700/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9586  
Epoch 38701/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9609  
Epoch 38702/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9592  
Epoch 38703/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy:  
0.9594  
Epoch 38704/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0290 - accuracy:  
0.9597  
Epoch 38705/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9593  
Epoch 38706/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0292 - accuracy:  
0.9606  
Epoch 38707/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9601  
Epoch 38708/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0291 - accuracy:  
0.9600  
Epoch 38709/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
0.9596  
Epoch 38710/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9590  
Epoch 38711/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9609  
Epoch 38712/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9589  
Epoch 38713/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0294 - accuracy:  
0.9584  
Epoch 38714/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9597  
Epoch 38715/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9594  
Epoch 38716/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
0.9585  
Epoch 38717/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9603  
Epoch 38718/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0289 - accuracy:  
0.9589  
Epoch 38719/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0304 - accuracy:  
0.9595  
Epoch 38720/100000



2/2 [=====] - 0s 120ms/step - loss: 0.0299 - accuracy:  
0.9602  
Epoch 38721/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9595  
Epoch 38722/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0320 - accuracy:  
0.9588  
Epoch 38723/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9593  
Epoch 38724/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0299 - accuracy:  
0.9603  
Epoch 38725/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9601  
Epoch 38726/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0300 - accuracy:  
0.9593  
Epoch 38727/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9596  
Epoch 38728/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9604  
Epoch 38729/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9605  
Epoch 38730/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9582  
Epoch 38731/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9598  
Epoch 38732/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy:  
0.9601  
Epoch 38733/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9595  
Epoch 38734/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0297 - accuracy:  
0.9602  
Epoch 38735/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9598  
Epoch 38736/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9599  
Epoch 38737/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy:  
0.9592  
Epoch 38738/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
0.9595  
Epoch 38739/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9594  
Epoch 38740/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9595  
Epoch 38741/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9596  
Epoch 38742/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9595  
Epoch 38743/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9603  
Epoch 38744/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
0.9584  
Epoch 38745/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9602  
Epoch 38746/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9593  
Epoch 38747/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9607  
Epoch 38748/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9602  
Epoch 38749/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9597  
Epoch 38750/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9597  
Epoch 38751/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9596  
Epoch 38752/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy: 0.9602  
Epoch 38753/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy: 0.9599  
Epoch 38754/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0301 - accuracy: 0.9600  
Epoch 38755/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9597  
Epoch 38756/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9594  
Epoch 38757/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy: 0.9593  
Epoch 38758/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy: 0.9602  
Epoch 38759/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy: 0.9592  
Epoch 38760/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy: 0.9599  
Epoch 38761/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy: 0.9589  
Epoch 38762/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy: 0.9600  
Epoch 38763/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy: 0.9596  
Epoch 38764/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9598  
Epoch 38765/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0292 - accuracy: 0.9591  
Epoch 38766/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy: 0.9596  
Epoch 38767/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9602  
Epoch 38768/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0301 - accuracy: 0.9595  
Epoch 38769/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy: 0.9604  
Epoch 38770/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy: 0.9599  
Epoch 38771/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9591  
Epoch 38772/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy: 0.9604  
Epoch 38773/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0297 - accuracy: 0.9587  
Epoch 38774/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9595  
Epoch 38775/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9601  
Epoch 38776/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9604  
Epoch 38777/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9597  
Epoch 38778/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9587  
Epoch 38779/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9595  
Epoch 38780/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy: 0.9587  
Epoch 38781/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9596  
Epoch 38782/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy: 0.9593  
Epoch 38783/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9597  
Epoch 38784/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9598  
 Epoch 38785/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9593  
 Epoch 38786/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9604  
 Epoch 38787/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy: 0.9592  
 Epoch 38788/100000  
 2/2 [=====] - 0s 120ms/step - loss: 0.0301 - accuracy: 0.9607  
 Epoch 38789/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9589  
 Epoch 38790/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy: 0.9593  
 Epoch 38791/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy: 0.9599  
 Epoch 38792/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9599  
 Epoch 38793/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy: 0.9599  
 Epoch 38794/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0297 - accuracy: 0.9599  
 Epoch 38795/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9603  
 Epoch 38796/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9598  
 Epoch 38797/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0317 - accuracy: 0.9597  
 Epoch 38798/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0315 - accuracy: 0.9599  
 Epoch 38799/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0387 - accuracy: 0.9603  
 Epoch 38800/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0380 - accuracy: 0.9595  
Epoch 38801/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0371 - accuracy: 0.9606  
Epoch 38802/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0378 - accuracy: 0.9587  
Epoch 38803/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0359 - accuracy: 0.9596  
Epoch 38804/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0344 - accuracy: 0.9598  
Epoch 38805/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0353 - accuracy: 0.9590  
Epoch 38806/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0337 - accuracy: 0.9599  
Epoch 38807/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0341 - accuracy: 0.9608  
Epoch 38808/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0332 - accuracy: 0.9590  
Epoch 38809/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0328 - accuracy: 0.9605  
Epoch 38810/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0325 - accuracy: 0.9604  
Epoch 38811/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0321 - accuracy: 0.9589  
Epoch 38812/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0311 - accuracy: 0.9596  
Epoch 38813/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0311 - accuracy: 0.9589  
Epoch 38814/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy: 0.9590  
Epoch 38815/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy: 0.9590  
Epoch 38816/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0309 - accuracy:  
0.9605  
Epoch 38817/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0308 - accuracy:  
0.9614  
Epoch 38818/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0309 - accuracy:  
0.9606  
Epoch 38819/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9596  
Epoch 38820/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9590  
Epoch 38821/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9594  
Epoch 38822/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9591  
Epoch 38823/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9601  
Epoch 38824/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9600  
Epoch 38825/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9589  
Epoch 38826/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9594  
Epoch 38827/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0314 - accuracy:  
0.9588  
Epoch 38828/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0321 - accuracy:  
0.9600  
Epoch 38829/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0315 - accuracy:  
0.9603  
Epoch 38830/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9592  
Epoch 38831/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9595  
Epoch 38832/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0303 - accuracy: 0.9597  
 Epoch 38833/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0313 - accuracy: 0.9589  
 Epoch 38834/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9591  
 Epoch 38835/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy: 0.9590  
 Epoch 38836/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9586  
 Epoch 38837/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy: 0.9599  
 Epoch 38838/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy: 0.9593  
 Epoch 38839/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9597  
 Epoch 38840/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy: 0.9602  
 Epoch 38841/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy: 0.9602  
 Epoch 38842/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy: 0.9602  
 Epoch 38843/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0296 - accuracy: 0.9600  
 Epoch 38844/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy: 0.9597  
 Epoch 38845/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9600  
 Epoch 38846/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy: 0.9609  
 Epoch 38847/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy: 0.9603  
 Epoch 38848/100000



2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9601  
Epoch 38849/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0297 - accuracy:  
0.9602  
Epoch 38850/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9600  
Epoch 38851/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9593  
Epoch 38852/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy:  
0.9588  
Epoch 38853/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9604  
Epoch 38854/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9601  
Epoch 38855/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9600  
Epoch 38856/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy:  
0.9595  
Epoch 38857/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy:  
0.9589  
Epoch 38858/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9598  
Epoch 38859/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
0.9594  
Epoch 38860/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9593  
Epoch 38861/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9595  
Epoch 38862/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9603  
Epoch 38863/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9591  
Epoch 38864/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9588  
Epoch 38865/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy: 0.9602  
Epoch 38866/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy: 0.9592  
Epoch 38867/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy: 0.9599  
Epoch 38868/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9602  
Epoch 38869/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy: 0.9594  
Epoch 38870/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy: 0.9590  
Epoch 38871/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0296 - accuracy: 0.9603  
Epoch 38872/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy: 0.9601  
Epoch 38873/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy: 0.9594  
Epoch 38874/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy: 0.9596  
Epoch 38875/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy: 0.9597  
Epoch 38876/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9593  
Epoch 38877/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0295 - accuracy: 0.9595  
Epoch 38878/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0293 - accuracy: 0.9605  
Epoch 38879/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy: 0.9597  
Epoch 38880/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy: 0.9592  
Epoch 38881/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy: 0.9604  
Epoch 38882/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9596  
Epoch 38883/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0295 - accuracy: 0.9597  
Epoch 38884/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy: 0.9594  
Epoch 38885/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9587  
Epoch 38886/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0296 - accuracy: 0.9597  
Epoch 38887/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9598  
Epoch 38888/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy: 0.9601  
Epoch 38889/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy: 0.9594  
Epoch 38890/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9592  
Epoch 38891/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9596  
Epoch 38892/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy: 0.9596  
Epoch 38893/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9594  
Epoch 38894/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy: 0.9595  
Epoch 38895/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0306 - accuracy: 0.9603  
Epoch 38896/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy:  
0.9587  
Epoch 38897/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy:  
0.9589  
Epoch 38898/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9598  
Epoch 38899/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9601  
Epoch 38900/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9596  
Epoch 38901/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0302 - accuracy:  
0.9599  
Epoch 38902/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0295 - accuracy:  
0.9583  
Epoch 38903/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0317 - accuracy:  
0.9598  
Epoch 38904/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9592  
Epoch 38905/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9594  
Epoch 38906/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9603  
Epoch 38907/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9593  
Epoch 38908/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9588  
Epoch 38909/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9592  
Epoch 38910/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9594  
Epoch 38911/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0298 - accuracy:  
0.9605  
Epoch 38912/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy: 0.9595  
Epoch 38913/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy: 0.9603  
Epoch 38914/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy: 0.9594  
Epoch 38915/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9595  
Epoch 38916/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9598  
Epoch 38917/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy: 0.9593  
Epoch 38918/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy: 0.9589  
Epoch 38919/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy: 0.9593  
Epoch 38920/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0293 - accuracy: 0.9593  
Epoch 38921/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy: 0.9602  
Epoch 38922/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy: 0.9591  
Epoch 38923/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9591  
Epoch 38924/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy: 0.9596  
Epoch 38925/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9588  
Epoch 38926/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9601  
Epoch 38927/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy: 0.9588  
Epoch 38928/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9600  
Epoch 38929/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0287 - accuracy:  
0.9595  
Epoch 38930/100000  
2/2 [=====] - 0s 126ms/step - loss: 0.0294 - accuracy:  
0.9593  
Epoch 38931/100000  
2/2 [=====] - 0s 129ms/step - loss: 0.0292 - accuracy:  
0.9591  
Epoch 38932/100000  
2/2 [=====] - 0s 129ms/step - loss: 0.0299 - accuracy:  
0.9594  
Epoch 38933/100000  
2/2 [=====] - 0s 126ms/step - loss: 0.0295 - accuracy:  
0.9610  
Epoch 38934/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0304 - accuracy:  
0.9599  
Epoch 38935/100000  
2/2 [=====] - 0s 136ms/step - loss: 0.0303 - accuracy:  
0.9596  
Epoch 38936/100000  
2/2 [=====] - 0s 127ms/step - loss: 0.0302 - accuracy:  
0.9595  
Epoch 38937/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0299 - accuracy:  
0.9600  
Epoch 38938/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9603  
Epoch 38939/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy:  
0.9597  
Epoch 38940/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9600  
Epoch 38941/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9594  
Epoch 38942/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9593  
Epoch 38943/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9602  
Epoch 38944/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:  
0.9595  
Epoch 38945/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9597  
Epoch 38946/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9605  
Epoch 38947/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9592  
Epoch 38948/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0311 - accuracy:  
0.9592  
Epoch 38949/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9599  
Epoch 38950/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9599  
Epoch 38951/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9593  
Epoch 38952/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9596  
Epoch 38953/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0295 - accuracy:  
0.9589  
Epoch 38954/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9595  
Epoch 38955/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9595  
Epoch 38956/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9609  
Epoch 38957/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9586  
Epoch 38958/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9598  
Epoch 38959/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9606  
Epoch 38960/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9602  
Epoch 38961/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9588  
Epoch 38962/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9599  
Epoch 38963/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9594  
Epoch 38964/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9609  
Epoch 38965/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9598  
Epoch 38966/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9594  
Epoch 38967/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9587  
Epoch 38968/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9605  
Epoch 38969/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9597  
Epoch 38970/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0297 - accuracy:  
0.9592  
Epoch 38971/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0293 - accuracy:  
0.9600  
Epoch 38972/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9596  
Epoch 38973/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9601  
Epoch 38974/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9593  
Epoch 38975/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy:  
0.9590  
Epoch 38976/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
0.9591  
Epoch 38977/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy:  
0.9604  
Epoch 38978/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0292 - accuracy:  
0.9599  
Epoch 38979/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0296 - accuracy:  
0.9604  
Epoch 38980/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy:  
0.9596  
Epoch 38981/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0287 - accuracy:  
0.9590  
Epoch 38982/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0291 - accuracy:  
0.9599  
Epoch 38983/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy:  
0.9589  
Epoch 38984/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9609  
Epoch 38985/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9591  
Epoch 38986/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
0.9592  
Epoch 38987/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9602  
Epoch 38988/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9594  
Epoch 38989/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9606  
Epoch 38990/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0309 - accuracy:  
0.9606  
Epoch 38991/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9594  
Epoch 38992/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9588  
Epoch 38993/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9594  
Epoch 38994/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9603  
Epoch 38995/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0300 - accuracy:  
0.9593  
Epoch 38996/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9593  
Epoch 38997/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0299 - accuracy:  
0.9594  
Epoch 38998/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9596  
Epoch 38999/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9595  
Epoch 39000/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0297 - accuracy:  
0.9595  
Epoch 39001/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9601  
Epoch 39002/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9600  
Epoch 39003/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9587  
Epoch 39004/100000  
2/2 [=====] - 0s 126ms/step - loss: 0.0296 - accuracy:  
0.9601  
Epoch 39005/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9597  
Epoch 39006/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0294 - accuracy:  
0.9601  
Epoch 39007/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9597  
Epoch 39008/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9589  
Epoch 39009/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9606  
Epoch 39010/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9595  
Epoch 39011/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9603  
Epoch 39012/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy:  
0.9587  
Epoch 39013/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9599  
Epoch 39014/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9599  
Epoch 39015/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9596  
Epoch 39016/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9592  
Epoch 39017/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9597  
Epoch 39018/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9590  
Epoch 39019/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9600  
Epoch 39020/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9595  
Epoch 39021/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9593  
Epoch 39022/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9600  
Epoch 39023/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9589  
Epoch 39024/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9604  
Epoch 39025/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9591  
Epoch 39026/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9593  
Epoch 39027/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9596  
Epoch 39028/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9594  
Epoch 39029/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9595  
Epoch 39030/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9606  
Epoch 39031/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9590  
Epoch 39032/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9584  
Epoch 39033/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0296 - accuracy:  
0.9600  
Epoch 39034/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9602  
Epoch 39035/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9608  
Epoch 39036/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9587  
Epoch 39037/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9602  
Epoch 39038/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9590  
Epoch 39039/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy:  
0.9600  
Epoch 39040/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0293 - accuracy:  
0.9587  
Epoch 39041/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0294 - accuracy:  
0.9596  
Epoch 39042/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9592  
Epoch 39043/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9589  
Epoch 39044/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9601  
Epoch 39045/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0293 - accuracy:  
0.9590  
Epoch 39046/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy:  
0.9594  
Epoch 39047/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0299 - accuracy:  
0.9586  
Epoch 39048/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9604  
Epoch 39049/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
0.9592  
Epoch 39050/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9590  
Epoch 39051/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0297 - accuracy:  
0.9588  
Epoch 39052/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9602  
Epoch 39053/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9601  
Epoch 39054/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy:  
0.9591  
Epoch 39055/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9589  
Epoch 39056/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy: 0.9598  
Epoch 39057/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9587  
Epoch 39058/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9590  
Epoch 39059/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy: 0.9599  
Epoch 39060/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy: 0.9591  
Epoch 39061/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0296 - accuracy: 0.9601  
Epoch 39062/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9593  
Epoch 39063/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9598  
Epoch 39064/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy: 0.9583  
Epoch 39065/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy: 0.9606  
Epoch 39066/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9592  
Epoch 39067/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy: 0.9596  
Epoch 39068/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9596  
Epoch 39069/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0312 - accuracy: 0.9585  
Epoch 39070/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0323 - accuracy: 0.9596  
Epoch 39071/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0317 - accuracy: 0.9593  
Epoch 39072/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9596  
Epoch 39073/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9605  
Epoch 39074/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9595  
Epoch 39075/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:  
0.9591  
Epoch 39076/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9594  
Epoch 39077/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0315 - accuracy:  
0.9598  
Epoch 39078/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9597  
Epoch 39079/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9588  
Epoch 39080/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy:  
0.9592  
Epoch 39081/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9590  
Epoch 39082/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9594  
Epoch 39083/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9586  
Epoch 39084/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0302 - accuracy:  
0.9602  
Epoch 39085/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9599  
Epoch 39086/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9597  
Epoch 39087/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy:  
0.9592  
Epoch 39088/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9592  
Epoch 39089/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9589  
Epoch 39090/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9603  
Epoch 39091/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9606  
Epoch 39092/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy:  
0.9600  
Epoch 39093/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9585  
Epoch 39094/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9603  
Epoch 39095/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9593  
Epoch 39096/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy:  
0.9600  
Epoch 39097/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9595  
Epoch 39098/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy:  
0.9593  
Epoch 39099/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy:  
0.9600  
Epoch 39100/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0291 - accuracy:  
0.9591  
Epoch 39101/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9600  
Epoch 39102/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9595  
Epoch 39103/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:  
0.9602  
Epoch 39104/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9598  
Epoch 39105/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0291 - accuracy:  
0.9598  
Epoch 39106/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9592  
Epoch 39107/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9597  
Epoch 39108/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9594  
Epoch 39109/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy:  
0.9594  
Epoch 39110/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9600  
Epoch 39111/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9600  
Epoch 39112/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy:  
0.9596  
Epoch 39113/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9606  
Epoch 39114/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy:  
0.9597  
Epoch 39115/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy:  
0.9606  
Epoch 39116/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0292 - accuracy:  
0.9587  
Epoch 39117/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9595  
Epoch 39118/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9596  
Epoch 39119/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0320 - accuracy:  
0.9602  
Epoch 39120/100000

2/2 [=====] - 0s 119ms/step - loss: 0.0316 - accuracy:  
0.9598  
Epoch 39121/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9597  
Epoch 39122/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9600  
Epoch 39123/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9600  
Epoch 39124/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0312 - accuracy:  
0.9588  
Epoch 39125/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0314 - accuracy:  
0.9598  
Epoch 39126/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy:  
0.9593  
Epoch 39127/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9593  
Epoch 39128/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9601  
Epoch 39129/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9602  
Epoch 39130/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9597  
Epoch 39131/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0307 - accuracy:  
0.9593  
Epoch 39132/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9607  
Epoch 39133/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0296 - accuracy:  
0.9601  
Epoch 39134/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9593  
Epoch 39135/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9590  
Epoch 39136/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy: 0.9593  
Epoch 39137/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy: 0.9601  
Epoch 39138/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy: 0.9592  
Epoch 39139/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9592  
Epoch 39140/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0296 - accuracy: 0.9599  
Epoch 39141/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy: 0.9596  
Epoch 39142/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9600  
Epoch 39143/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0294 - accuracy: 0.9597  
Epoch 39144/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy: 0.9599  
Epoch 39145/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0296 - accuracy: 0.9597  
Epoch 39146/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy: 0.9589  
Epoch 39147/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy: 0.9593  
Epoch 39148/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9591  
Epoch 39149/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9596  
Epoch 39150/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy: 0.9608  
Epoch 39151/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9589  
Epoch 39152/100000

2/2 [=====] - 0s 122ms/step - loss: 0.0300 - accuracy:  
0.9599  
Epoch 39153/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0294 - accuracy:  
0.9596  
Epoch 39154/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9584  
Epoch 39155/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9599  
Epoch 39156/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9598  
Epoch 39157/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9595  
Epoch 39158/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9590  
Epoch 39159/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
0.9586  
Epoch 39160/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9601  
Epoch 39161/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9596  
Epoch 39162/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9600  
Epoch 39163/100000  
2/2 [=====] - 0s 112ms/step - loss: 0.0295 - accuracy:  
0.9593  
Epoch 39164/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9595  
Epoch 39165/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0293 - accuracy:  
0.9601  
Epoch 39166/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9609  
Epoch 39167/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0300 - accuracy:  
0.9597  
Epoch 39168/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9599  
Epoch 39169/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9593  
Epoch 39170/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9601  
Epoch 39171/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9595  
Epoch 39172/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9609  
Epoch 39173/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0306 - accuracy:  
0.9597  
Epoch 39174/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9602  
Epoch 39175/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9609  
Epoch 39176/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9606  
Epoch 39177/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9598  
Epoch 39178/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy:  
0.9599  
Epoch 39179/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9594  
Epoch 39180/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9595  
Epoch 39181/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9609  
Epoch 39182/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9592  
Epoch 39183/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9602  
Epoch 39184/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9592  
Epoch 39185/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
0.9597  
Epoch 39186/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9598  
Epoch 39187/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9605  
Epoch 39188/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy:  
0.9591  
Epoch 39189/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy:  
0.9595  
Epoch 39190/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0293 - accuracy:  
0.9599  
Epoch 39191/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9608  
Epoch 39192/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0296 - accuracy:  
0.9591  
Epoch 39193/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9596  
Epoch 39194/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0293 - accuracy:  
0.9593  
Epoch 39195/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9584  
Epoch 39196/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9594  
Epoch 39197/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9602  
Epoch 39198/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9595  
Epoch 39199/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9591  
Epoch 39200/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0313 - accuracy:  
0.9602  
Epoch 39201/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0304 - accuracy:  
0.9600  
Epoch 39202/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9606  
Epoch 39203/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0296 - accuracy:  
0.9601  
Epoch 39204/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0303 - accuracy:  
0.9589  
Epoch 39205/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9594  
Epoch 39206/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9605  
Epoch 39207/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9590  
Epoch 39208/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9599  
Epoch 39209/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9605  
Epoch 39210/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9605  
Epoch 39211/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0296 - accuracy:  
0.9588  
Epoch 39212/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9594  
Epoch 39213/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0298 - accuracy:  
0.9593  
Epoch 39214/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9600  
Epoch 39215/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9605  
Epoch 39216/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy:  
0.9599  
Epoch 39217/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9595  
Epoch 39218/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0318 - accuracy:  
0.9605  
Epoch 39219/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9599  
Epoch 39220/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9594  
Epoch 39221/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9599  
Epoch 39222/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9588  
Epoch 39223/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0303 - accuracy:  
0.9591  
Epoch 39224/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9590  
Epoch 39225/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9592  
Epoch 39226/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9593  
Epoch 39227/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9601  
Epoch 39228/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9593  
Epoch 39229/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9596  
Epoch 39230/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9606  
Epoch 39231/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9600  
Epoch 39232/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9596  
Epoch 39233/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0295 - accuracy:  
0.9593  
Epoch 39234/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9604  
Epoch 39235/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9593  
Epoch 39236/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9599  
Epoch 39237/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9596  
Epoch 39238/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0298 - accuracy:  
0.9602  
Epoch 39239/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0312 - accuracy:  
0.9598  
Epoch 39240/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0312 - accuracy:  
0.9587  
Epoch 39241/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0309 - accuracy:  
0.9597  
Epoch 39242/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9594  
Epoch 39243/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9601  
Epoch 39244/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9588  
Epoch 39245/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0315 - accuracy:  
0.9602  
Epoch 39246/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0310 - accuracy:  
0.9594  
Epoch 39247/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9595  
Epoch 39248/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9595  
Epoch 39249/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0301 - accuracy:  
0.9595  
Epoch 39250/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0313 - accuracy:  
0.9587  
Epoch 39251/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9600  
Epoch 39252/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9596  
Epoch 39253/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0306 - accuracy:  
0.9608  
Epoch 39254/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0325 - accuracy:  
0.9598  
Epoch 39255/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0334 - accuracy:  
0.9594  
Epoch 39256/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0323 - accuracy:  
0.9607  
Epoch 39257/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0317 - accuracy:  
0.9600  
Epoch 39258/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy:  
0.9597  
Epoch 39259/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9597  
Epoch 39260/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9604  
Epoch 39261/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0302 - accuracy:  
0.9598  
Epoch 39262/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9597  
Epoch 39263/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0301 - accuracy:  
0.9590  
Epoch 39264/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9597  
Epoch 39265/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9587  
Epoch 39266/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0300 - accuracy:  
0.9593  
Epoch 39267/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9601  
Epoch 39268/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9596  
Epoch 39269/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9600  
Epoch 39270/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9599  
Epoch 39271/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9588  
Epoch 39272/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9589  
Epoch 39273/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0292 - accuracy:  
0.9596  
Epoch 39274/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy:  
0.9597  
Epoch 39275/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy:  
0.9593  
Epoch 39276/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9607  
Epoch 39277/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0294 - accuracy:  
0.9592  
Epoch 39278/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy:  
0.9595  
Epoch 39279/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
0.9592  
Epoch 39280/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0291 - accuracy:  
0.9595  
Epoch 39281/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
0.9594  
Epoch 39282/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9592  
Epoch 39283/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0295 - accuracy:  
0.9590  
Epoch 39284/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9589  
Epoch 39285/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9597  
Epoch 39286/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
0.9597  
Epoch 39287/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0291 - accuracy:  
0.9595  
Epoch 39288/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9586  
Epoch 39289/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9597  
Epoch 39290/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9601  
Epoch 39291/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0299 - accuracy:  
0.9596  
Epoch 39292/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0295 - accuracy:  
0.9590  
Epoch 39293/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9600  
Epoch 39294/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0299 - accuracy:  
0.9605  
Epoch 39295/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9593  
Epoch 39296/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9601  
Epoch 39297/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0301 - accuracy:  
0.9590  
Epoch 39298/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9604  
Epoch 39299/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy:  
0.9593  
Epoch 39300/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9603  
Epoch 39301/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0293 - accuracy:  
0.9584  
Epoch 39302/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9592  
Epoch 39303/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0295 - accuracy:  
0.9589  
Epoch 39304/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
0.9590  
Epoch 39305/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0293 - accuracy:  
0.9607  
Epoch 39306/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
0.9583  
Epoch 39307/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
0.9597  
Epoch 39308/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0292 - accuracy:  
0.9600  
Epoch 39309/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9596  
Epoch 39310/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy:  
0.9599  
Epoch 39311/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy:  
0.9590  
Epoch 39312/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
0.9591  
Epoch 39313/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0291 - accuracy:  
0.9596  
Epoch 39314/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy:  
0.9599  
Epoch 39315/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9588  
Epoch 39316/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy:  
0.9608  
Epoch 39317/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9595  
Epoch 39318/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0293 - accuracy:  
0.9601  
Epoch 39319/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9598  
Epoch 39320/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0292 - accuracy:  
0.9596  
Epoch 39321/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy:  
0.9592  
Epoch 39322/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
0.9594  
Epoch 39323/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9589  
Epoch 39324/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9599  
Epoch 39325/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9601  
Epoch 39326/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0297 - accuracy:  
0.9598  
Epoch 39327/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9599  
Epoch 39328/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9606  
Epoch 39329/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy:  
0.9596  
Epoch 39330/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9594  
Epoch 39331/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9588  
Epoch 39332/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9595  
Epoch 39333/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9605  
Epoch 39334/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9595  
Epoch 39335/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9592  
Epoch 39336/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9596  
Epoch 39337/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9595  
Epoch 39338/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy:  
0.9592  
Epoch 39339/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9600  
Epoch 39340/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9599  
Epoch 39341/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0290 - accuracy:  
0.9592  
Epoch 39342/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9595  
Epoch 39343/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9601  
Epoch 39344/100000

2/2 [=====] - 0s 113ms/step - loss: 0.0302 - accuracy:  
0.9590  
Epoch 39345/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9592  
Epoch 39346/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9594  
Epoch 39347/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9598  
Epoch 39348/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:  
0.9596  
Epoch 39349/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:  
0.9601  
Epoch 39350/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0299 - accuracy:  
0.9600  
Epoch 39351/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9599  
Epoch 39352/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9595  
Epoch 39353/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9589  
Epoch 39354/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9593  
Epoch 39355/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9599  
Epoch 39356/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9597  
Epoch 39357/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0293 - accuracy:  
0.9593  
Epoch 39358/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
0.9597  
Epoch 39359/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
0.9594  
Epoch 39360/100000



2/2 [=====] - 0s 116ms/step - loss: 0.0293 - accuracy:  
0.9600  
Epoch 39361/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9601  
Epoch 39362/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9598  
Epoch 39363/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0292 - accuracy:  
0.9597  
Epoch 39364/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
0.9583  
Epoch 39365/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
0.9590  
Epoch 39366/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9598  
Epoch 39367/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
0.9590  
Epoch 39368/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9596  
Epoch 39369/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0299 - accuracy:  
0.9597  
Epoch 39370/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9594  
Epoch 39371/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0293 - accuracy:  
0.9590  
Epoch 39372/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy:  
0.9587  
Epoch 39373/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0296 - accuracy:  
0.9597  
Epoch 39374/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0295 - accuracy:  
0.9600  
Epoch 39375/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9604  
Epoch 39376/100000

2/2 [=====] - 0s 121ms/step - loss: 0.0294 - accuracy:  
0.9599  
Epoch 39377/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9599  
Epoch 39378/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0291 - accuracy:  
0.9593  
Epoch 39379/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9597  
Epoch 39380/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
0.9600  
Epoch 39381/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0292 - accuracy:  
0.9592  
Epoch 39382/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9598  
Epoch 39383/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy:  
0.9591  
Epoch 39384/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9595  
Epoch 39385/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9601  
Epoch 39386/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
0.9594  
Epoch 39387/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0295 - accuracy:  
0.9587  
Epoch 39388/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9602  
Epoch 39389/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9599  
Epoch 71732/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
0.9596  
Epoch 71733/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
0.9593  
Epoch 71734/100000

2/2 [=====] - 0s 121ms/step - loss: 0.0292 - accuracy:  
0.9597  
Epoch 71735/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy:  
0.9595  
Epoch 71736/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9600  
Epoch 71737/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9586  
Epoch 71738/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9604  
Epoch 71739/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9595  
Epoch 71740/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9610  
Epoch 71741/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0291 - accuracy:  
0.9605  
Epoch 71742/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
0.9599  
Epoch 71743/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
0.9599  
Epoch 71744/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0287 - accuracy:  
0.9594  
Epoch 71745/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy:  
0.9593  
Epoch 71746/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy:  
0.9603  
Epoch 71747/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy:  
0.9591  
Epoch 71748/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0283 - accuracy:  
0.9584  
Epoch 71749/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
0.9592  
Epoch 71750/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy:  
0.9593  
Epoch 71751/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0291 - accuracy:  
0.9600  
Epoch 71752/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9600  
Epoch 71753/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy:  
0.9594  
Epoch 71754/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0288 - accuracy:  
0.9593  
Epoch 71755/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9594  
Epoch 71756/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0282 - accuracy:  
0.9595  
Epoch 71757/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
0.9599  
Epoch 71758/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy:  
0.9600  
Epoch 71759/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy:  
0.9597  
Epoch 71760/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy:  
0.9602  
Epoch 71761/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
0.9594  
Epoch 71762/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0290 - accuracy:  
0.9599  
Epoch 71763/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0291 - accuracy:  
0.9606  
Epoch 71764/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0292 - accuracy:  
0.9605  
Epoch 71765/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy:  
0.9590  
Epoch 71766/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
0.9594  
Epoch 71767/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
0.9600  
Epoch 71768/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0286 - accuracy:  
0.9600  
Epoch 71769/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9604  
Epoch 71770/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0284 - accuracy:  
0.9595  
Epoch 71771/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
0.9604  
Epoch 71772/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy:  
0.9582  
Epoch 71773/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
0.9591  
Epoch 71774/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0286 - accuracy:  
0.9599  
Epoch 71775/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9598  
Epoch 71776/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9595  
Epoch 71777/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9594  
Epoch 71778/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9595  
Epoch 71779/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy:  
0.9599  
Epoch 71780/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
0.9597  
Epoch 71781/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0284 - accuracy:  
0.9584  
Epoch 71782/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9588  
Epoch 71783/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy: 0.9588  
Epoch 71784/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy: 0.9595  
Epoch 71785/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy: 0.9591  
Epoch 71786/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy: 0.9604  
Epoch 71787/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0286 - accuracy: 0.9592  
Epoch 71788/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0288 - accuracy: 0.9602  
Epoch 71789/100000  
2/2 [=====] - 0s 112ms/step - loss: 0.0287 - accuracy: 0.9591  
Epoch 71790/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy: 0.9601  
Epoch 71791/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy: 0.9599  
Epoch 71792/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy: 0.9602  
Epoch 71793/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy: 0.9600  
Epoch 71794/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0287 - accuracy: 0.9596  
Epoch 71795/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy: 0.9599  
Epoch 71796/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0284 - accuracy: 0.9589  
Epoch 71797/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9584  
Epoch 71798/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
0.9599  
Epoch 71799/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0293 - accuracy:  
0.9598  
Epoch 71800/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9597  
Epoch 71801/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
0.9590  
Epoch 71802/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0290 - accuracy:  
0.9599  
Epoch 71803/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
0.9590  
Epoch 71804/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
0.9591  
Epoch 71805/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
0.9596  
Epoch 71806/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0288 - accuracy:  
0.9598  
Epoch 71807/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0286 - accuracy:  
0.9600  
Epoch 71808/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9594  
Epoch 71809/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
0.9597  
Epoch 71810/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0290 - accuracy:  
0.9599  
Epoch 71811/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
0.9600  
Epoch 71812/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0285 - accuracy:  
0.9594  
Epoch 71813/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9601  
Epoch 71814/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0286 - accuracy: 0.9594  
Epoch 71815/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy: 0.9596  
Epoch 71816/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0290 - accuracy: 0.9600  
Epoch 71817/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0290 - accuracy: 0.9591  
Epoch 71818/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0290 - accuracy: 0.9599  
Epoch 71819/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy: 0.9588  
Epoch 71820/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy: 0.9600  
Epoch 71821/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy: 0.9594  
Epoch 71822/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0292 - accuracy: 0.9602  
Epoch 71823/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9587  
Epoch 71824/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9599  
Epoch 71825/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0294 - accuracy: 0.9587  
Epoch 71826/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9586  
Epoch 71827/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy: 0.9596  
Epoch 71828/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0312 - accuracy: 0.9600  
Epoch 71829/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy: 0.9598  
Epoch 71830/100000



2/2 [=====] - 0s 114ms/step - loss: 0.0310 - accuracy:  
0.9600  
Epoch 71831/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
0.9599  
Epoch 71832/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0309 - accuracy:  
0.9597  
Epoch 71833/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
0.9602  
Epoch 71834/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0298 - accuracy:  
0.9597  
Epoch 71835/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9601  
Epoch 71836/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9585  
Epoch 71837/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9598  
Epoch 71838/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9593  
Epoch 71839/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0293 - accuracy:  
0.9591  
Epoch 71840/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9598  
Epoch 71841/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0293 - accuracy:  
0.9603  
Epoch 71842/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0290 - accuracy:  
0.9606  
Epoch 71843/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0293 - accuracy:  
0.9604  
Epoch 71844/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
0.9593  
Epoch 71845/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy:  
0.9598  
Epoch 71846/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0290 - accuracy: 0.9597  
Epoch 71847/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy: 0.9596  
Epoch 71848/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy: 0.9602  
Epoch 71849/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0290 - accuracy: 0.9598  
Epoch 71850/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy: 0.9601  
Epoch 71851/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0290 - accuracy: 0.9590  
Epoch 71852/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy: 0.9594  
Epoch 71853/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy: 0.9592  
Epoch 71854/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy: 0.9594  
Epoch 71855/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy: 0.9585  
Epoch 71856/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy: 0.9600  
Epoch 71857/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0286 - accuracy: 0.9589  
Epoch 71858/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy: 0.9595  
Epoch 71859/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0290 - accuracy: 0.9589  
Epoch 71860/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9590  
Epoch 71861/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy: 0.9594  
Epoch 71862/100000

2/2 [=====] - 0s 113ms/step - loss: 0.0290 - accuracy:  
0.9600  
Epoch 71863/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9597  
Epoch 71864/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
0.9594  
Epoch 71865/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9584  
Epoch 71866/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy:  
0.9594  
Epoch 71867/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:  
0.9601  
Epoch 71868/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0293 - accuracy:  
0.9602  
Epoch 71869/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9601  
Epoch 71870/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9598  
Epoch 71871/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
0.9599  
Epoch 71872/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy:  
0.9595  
Epoch 71873/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
0.9599  
Epoch 71874/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0290 - accuracy:  
0.9593  
Epoch 71875/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0285 - accuracy:  
0.9596  
Epoch 71876/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
0.9591  
Epoch 71877/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9602  
Epoch 71878/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0286 - accuracy: 0.9600  
Epoch 71879/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy: 0.9601  
Epoch 71880/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy: 0.9588  
Epoch 71881/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy: 0.9606  
Epoch 71882/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy: 0.9594  
Epoch 71883/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy: 0.9598  
Epoch 71884/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy: 0.9593  
Epoch 71885/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy: 0.9598  
Epoch 71886/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy: 0.9596  
Epoch 71887/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0299 - accuracy: 0.9603  
Epoch 71888/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy: 0.9597  
Epoch 71889/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy: 0.9590  
Epoch 71890/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy: 0.9591  
Epoch 71891/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy: 0.9590  
Epoch 71892/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy: 0.9595  
Epoch 71893/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy: 0.9597  
Epoch 71894/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy: 0.9604  
Epoch 71895/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy: 0.9595  
Epoch 71896/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy: 0.9594  
Epoch 71897/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0287 - accuracy: 0.9591  
Epoch 71898/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy: 0.9598  
Epoch 71899/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0288 - accuracy: 0.9598  
Epoch 71900/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy: 0.9602  
Epoch 71901/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy: 0.9602  
Epoch 71902/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0291 - accuracy: 0.9595  
Epoch 71903/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy: 0.9601  
Epoch 71904/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy: 0.9603  
Epoch 71905/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy: 0.9594  
Epoch 71906/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0294 - accuracy: 0.9606  
Epoch 71907/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy: 0.9584  
Epoch 71908/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy: 0.9591  
Epoch 71909/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0291 - accuracy: 0.9601  
Epoch 71910/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0288 - accuracy:  
0.9600  
Epoch 71911/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
0.9590  
Epoch 71912/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9603  
Epoch 71913/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9592  
Epoch 71914/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy:  
0.9592  
Epoch 71915/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
0.9595  
Epoch 71916/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
0.9602  
Epoch 71917/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0293 - accuracy:  
0.9597  
Epoch 71918/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
0.9595  
Epoch 71919/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy:  
0.9598  
Epoch 71920/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
0.9595  
Epoch 71921/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
0.9592  
Epoch 71922/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0291 - accuracy:  
0.9607  
Epoch 71923/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
0.9594  
Epoch 71924/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9592  
Epoch 71925/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
0.9596  
Epoch 71926/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9595  
Epoch 71927/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy:  
0.9597  
Epoch 71928/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9601  
Epoch 71929/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
0.9599  
Epoch 71930/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0291 - accuracy:  
0.9610  
Epoch 71931/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9601  
Epoch 71932/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0288 - accuracy:  
0.9599  
Epoch 71933/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9608  
Epoch 71934/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0288 - accuracy:  
0.9598  
Epoch 71935/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9595  
Epoch 71936/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9595  
Epoch 71937/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9594  
Epoch 71938/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0296 - accuracy:  
0.9595  
Epoch 71939/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
0.9595  
Epoch 71940/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9597  
Epoch 71941/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy:  
0.9602  
Epoch 71942/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9598  
Epoch 71943/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9587  
Epoch 71944/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9588  
Epoch 71945/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9604  
Epoch 71946/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9605  
Epoch 71947/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy:  
0.9601  
Epoch 71948/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0292 - accuracy:  
0.9601  
Epoch 71949/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9583  
Epoch 71950/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy:  
0.9598  
Epoch 71951/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9604  
Epoch 71952/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9599  
Epoch 71953/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0303 - accuracy:  
0.9605  
Epoch 71954/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9586  
Epoch 71955/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9598  
Epoch 71956/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9604  
Epoch 71957/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0294 - accuracy:  
0.9595  
Epoch 71958/100000



2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy:  
0.9592  
Epoch 71959/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9591  
Epoch 71960/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
0.9594  
Epoch 71961/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
0.9598  
Epoch 71962/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
0.9588  
Epoch 71963/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0291 - accuracy:  
0.9600  
Epoch 71964/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
0.9603  
Epoch 71965/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy:  
0.9600  
Epoch 71966/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
0.9596  
Epoch 71967/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:  
0.9591  
Epoch 71968/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
0.9587  
Epoch 71969/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0306 - accuracy:  
0.9595  
Epoch 71970/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9591  
Epoch 71971/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
0.9602  
Epoch 71972/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0284 - accuracy:  
0.9593  
Epoch 71973/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9590  
Epoch 71974/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9597  
Epoch 71975/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0287 - accuracy:  
0.9593  
Epoch 71976/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy:  
0.9595  
Epoch 71977/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9604  
Epoch 71978/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy:  
0.9593  
Epoch 71979/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9598  
Epoch 71980/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9601  
Epoch 71981/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9607  
Epoch 71982/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9603  
Epoch 71983/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9598  
Epoch 71984/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
0.9594  
Epoch 71985/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0294 - accuracy:  
0.9594  
Epoch 71986/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy:  
0.9596  
Epoch 71987/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy:  
0.9587  
Epoch 71988/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0290 - accuracy:  
0.9588  
Epoch 71989/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9596  
Epoch 71990/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9605  
Epoch 71991/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy:  
0.9591  
Epoch 71992/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0294 - accuracy:  
0.9591  
Epoch 71993/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9603  
Epoch 71994/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0292 - accuracy:  
0.9593  
Epoch 71995/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0296 - accuracy:  
0.9601  
Epoch 71996/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9586  
Epoch 71997/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:  
0.9598  
Epoch 71998/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0291 - accuracy:  
0.9593  
Epoch 71999/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9601  
Epoch 72000/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
0.9599  
Epoch 72001/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9593  
Epoch 72002/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0286 - accuracy:  
0.9583  
Epoch 72003/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
0.9609  
Epoch 72004/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:  
0.9599  
Epoch 72005/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0291 - accuracy:  
0.9600  
Epoch 72006/100000

2/2 [=====] - 0s 113ms/step - loss: 0.0283 - accuracy:  
0.9591  
Epoch 72007/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
0.9586  
Epoch 72008/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9593  
Epoch 72009/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
0.9587  
Epoch 72010/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0293 - accuracy:  
0.9602  
Epoch 72011/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0294 - accuracy:  
0.9597  
Epoch 72012/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9597  
Epoch 72013/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
0.9598  
Epoch 72014/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0294 - accuracy:  
0.9602  
Epoch 72015/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9594  
Epoch 72016/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
0.9596  
Epoch 72017/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9593  
Epoch 72018/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9600  
Epoch 72019/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
0.9588  
Epoch 72020/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy:  
0.9590  
Epoch 72021/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9593  
Epoch 72022/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0288 - accuracy: 0.9594  
Epoch 72023/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy: 0.9599  
Epoch 72024/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0293 - accuracy: 0.9597  
Epoch 72025/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9597  
Epoch 72026/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy: 0.9592  
Epoch 72027/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0295 - accuracy: 0.9606  
Epoch 72028/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9603  
Epoch 72029/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy: 0.9603  
Epoch 72030/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy: 0.9604  
Epoch 72031/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy: 0.9598  
Epoch 72032/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy: 0.9591  
Epoch 72033/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy: 0.9600  
Epoch 72034/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy: 0.9600  
Epoch 72035/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy: 0.9596  
Epoch 72036/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0279 - accuracy: 0.9593  
Epoch 72037/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0287 - accuracy: 0.9591  
Epoch 72038/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy: 0.9593  
Epoch 72039/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0289 - accuracy: 0.9603  
Epoch 72040/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy: 0.9602  
Epoch 72041/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0291 - accuracy: 0.9595  
Epoch 72042/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy: 0.9589  
Epoch 72043/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9597  
Epoch 72044/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy: 0.9593  
Epoch 72045/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy: 0.9589  
Epoch 72046/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy: 0.9594  
Epoch 72047/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy: 0.9593  
Epoch 72048/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9594  
Epoch 72049/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy: 0.9584  
Epoch 72050/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy: 0.9601  
Epoch 72051/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0287 - accuracy: 0.9592  
Epoch 72052/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy: 0.9591  
Epoch 72053/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy: 0.9598  
Epoch 72054/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
0.9597  
Epoch 72055/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
0.9584  
Epoch 72056/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0291 - accuracy:  
0.9597  
Epoch 72057/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9598  
Epoch 72058/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9595  
Epoch 72059/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
0.9605  
Epoch 72060/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy:  
0.9587  
Epoch 72061/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0281 - accuracy:  
0.9585  
Epoch 72062/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0287 - accuracy:  
0.9601  
Epoch 72063/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:  
0.9607  
Epoch 72064/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9597  
Epoch 72065/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9587  
Epoch 72066/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0287 - accuracy:  
0.9603  
Epoch 72067/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy:  
0.9596  
Epoch 72068/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9604  
Epoch 72069/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9590  
Epoch 72070/100000

2/2 [=====] - 0s 120ms/step - loss: 0.0295 - accuracy:  
0.9608  
Epoch 72071/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9601  
Epoch 72072/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9598  
Epoch 72073/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0286 - accuracy:  
0.9593  
Epoch 72074/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0294 - accuracy:  
0.9597  
Epoch 72075/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
0.9600  
Epoch 72076/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
0.9606  
Epoch 72077/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:  
0.9585  
Epoch 72078/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
0.9596  
Epoch 72079/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0287 - accuracy:  
0.9594  
Epoch 72080/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
0.9593  
Epoch 72081/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0280 - accuracy:  
0.9593  
Epoch 72082/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy:  
0.9591  
Epoch 72083/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0285 - accuracy:  
0.9593  
Epoch 72084/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy:  
0.9596  
Epoch 72085/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
0.9596  
Epoch 72086/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy: 0.9592  
Epoch 72087/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy: 0.9591  
Epoch 72088/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy: 0.9589  
Epoch 72089/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy: 0.9598  
Epoch 72090/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9607  
Epoch 72091/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9598  
Epoch 72092/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy: 0.9586  
Epoch 72093/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9597  
Epoch 72094/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9609  
Epoch 72095/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0298 - accuracy: 0.9606  
Epoch 72096/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9599  
Epoch 72097/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy: 0.9595  
Epoch 72098/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0293 - accuracy: 0.9595  
Epoch 72099/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy: 0.9591  
Epoch 72100/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0296 - accuracy: 0.9586  
Epoch 72101/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy: 0.9600  
Epoch 72102/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy: 0.9602  
 Epoch 72103/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy: 0.9600  
 Epoch 72104/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0293 - accuracy: 0.9595  
 Epoch 72105/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0290 - accuracy: 0.9602  
 Epoch 72106/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy: 0.9597  
 Epoch 72107/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0293 - accuracy: 0.9589  
 Epoch 72108/100000  
 2/2 [=====] - 0s 113ms/step - loss: 0.0292 - accuracy: 0.9599  
 Epoch 72109/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy: 0.9593  
 Epoch 72110/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9592  
 Epoch 72111/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy: 0.9589  
 Epoch 72112/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy: 0.9601  
 Epoch 72113/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy: 0.9604  
 Epoch 72114/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy: 0.9598  
 Epoch 72115/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy: 0.9593  
 Epoch 72116/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy: 0.9594  
 Epoch 72117/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy: 0.9601  
 Epoch 72118/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9600  
Epoch 72119/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0291 - accuracy:  
0.9587  
Epoch 72120/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy:  
0.9592  
Epoch 72121/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9587  
Epoch 72122/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9596  
Epoch 72123/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
0.9599  
Epoch 72124/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy:  
0.9596  
Epoch 72125/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0292 - accuracy:  
0.9595  
Epoch 72126/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9594  
Epoch 72127/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
0.9593  
Epoch 72128/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9586  
Epoch 72129/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0290 - accuracy:  
0.9601  
Epoch 72130/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
0.9592  
Epoch 72131/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy:  
0.9604  
Epoch 72132/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy:  
0.9589  
Epoch 72133/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0292 - accuracy:  
0.9605  
Epoch 72134/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy: 0.9608  
Epoch 72135/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy: 0.9594  
Epoch 72136/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy: 0.9598  
Epoch 72137/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy: 0.9592  
Epoch 72138/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy: 0.9609  
Epoch 72139/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9596  
Epoch 72140/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0293 - accuracy: 0.9599  
Epoch 72141/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy: 0.9595  
2/2 [=====] - 0s 117ms/step - loss: 0.0290 - accuracy: 0.9596  
Epoch 73061/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy: 0.9598  
Epoch 73062/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy: 0.9593  
Epoch 73063/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy: 0.9597  
Epoch 73064/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0291 - accuracy: 0.9598  
Epoch 73065/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy: 0.9588  
Epoch 73066/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy: 0.9595  
Epoch 73067/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy: 0.9592  
Epoch 73068/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:

0.9589  
Epoch 73069/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy: 0.9594  
Epoch 73070/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0290 - accuracy: 0.9599  
Epoch 73071/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy: 0.9599  
Epoch 73072/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0292 - accuracy: 0.9594  
Epoch 73073/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy: 0.9590  
Epoch 73074/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0293 - accuracy: 0.9598  
Epoch 73075/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy: 0.9607  
Epoch 73076/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy: 0.9597  
Epoch 73077/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy: 0.9614  
Epoch 73078/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy: 0.9587  
Epoch 73079/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0291 - accuracy: 0.9596  
Epoch 73080/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy: 0.9596  
Epoch 73081/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy: 0.9585  
Epoch 73082/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy: 0.9607  
Epoch 73083/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9604  
Epoch 73084/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:

0.9592  
 Epoch 73085/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
 0.9595  
 Epoch 73086/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
 0.9595  
 Epoch 73087/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:  
 0.9586  
 Epoch 73088/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
 0.9600  
 Epoch 73089/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
 0.9602  
 Epoch 73090/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
 0.9596  
 Epoch 73091/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
 0.9589  
 Epoch 73092/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
 0.9600  
 Epoch 73093/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
 0.9602  
 Epoch 73094/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy:  
 0.9599  
 Epoch 73095/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0290 - accuracy:  
 0.9602  
 Epoch 73096/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
 0.9595  
 Epoch 73097/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
 0.9601  
 Epoch 73098/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
 0.9607  
 Epoch 73099/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
 0.9612  
 Epoch 73100/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:

0.9600  
Epoch 73101/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9596  
Epoch 73102/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy: 0.9588  
Epoch 73103/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0291 - accuracy: 0.9599  
Epoch 73104/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy: 0.9597  
Epoch 73105/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy: 0.9604  
Epoch 73106/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy: 0.9592  
Epoch 73107/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0290 - accuracy: 0.9589  
Epoch 73108/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy: 0.9595  
Epoch 73109/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy: 0.9606  
Epoch 73110/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9600  
Epoch 73111/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy: 0.9599  
Epoch 73112/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy: 0.9592  
Epoch 73113/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy: 0.9599  
Epoch 73114/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0283 - accuracy: 0.9598  
Epoch 73115/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy: 0.9581  
Epoch 73116/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy:

0.9600  
Epoch 73117/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy: 0.9588  
Epoch 73118/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy: 0.9592  
Epoch 73119/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy: 0.9590  
Epoch 73120/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0291 - accuracy: 0.9594  
Epoch 73121/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy: 0.9591  
Epoch 73122/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0296 - accuracy: 0.9600  
Epoch 73123/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0289 - accuracy: 0.9590  
Epoch 73124/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy: 0.9592  
Epoch 73125/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0291 - accuracy: 0.9595  
Epoch 73126/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy: 0.9598  
Epoch 73127/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy: 0.9603  
Epoch 73128/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy: 0.9599  
Epoch 73129/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy: 0.9608  
Epoch 73130/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy: 0.9586  
Epoch 73131/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy: 0.9592  
Epoch 73132/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0290 - accuracy:



0.9587  
 Epoch 73133/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
 0.9594  
 Epoch 73134/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
 0.9604  
 Epoch 73135/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0302 - accuracy:  
 0.9602  
 Epoch 73136/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
 0.9598  
 Epoch 73137/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
 0.9594  
 Epoch 73138/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy:  
 0.9601  
 Epoch 73139/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0293 - accuracy:  
 0.9601  
 Epoch 73140/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
 0.9595  
 Epoch 73141/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0290 - accuracy:  
 0.9608  
 Epoch 73142/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
 0.9597  
 Epoch 73143/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy:  
 0.9591  
 Epoch 73144/100000  
 2/2 [=====] - 0s 122ms/step - loss: 0.0286 - accuracy:  
 0.9600  
 Epoch 73145/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0288 - accuracy:  
 0.9593  
 Epoch 73146/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
 0.9599  
 Epoch 73147/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0284 - accuracy:  
 0.9599  
 Epoch 73148/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:

0.9587  
 Epoch 73149/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy:  
 0.9595  
 Epoch 73150/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy:  
 0.9602  
 Epoch 73151/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0291 - accuracy:  
 0.9597  
 Epoch 73152/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
 0.9598  
 Epoch 73153/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy:  
 0.9589  
 Epoch 73154/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
 0.9602  
 Epoch 73155/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
 0.9592  
 Epoch 73156/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
 0.9598  
 Epoch 73157/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0289 - accuracy:  
 0.9593  
 Epoch 73158/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
 0.9596  
 Epoch 73159/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy:  
 0.9601  
 Epoch 73160/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy:  
 0.9602  
 Epoch 73161/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy:  
 0.9590  
 Epoch 73162/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy:  
 0.9604  
 Epoch 73163/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
 0.9595  
 Epoch 73164/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:

0.9594  
 Epoch 73165/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
 0.9597  
 Epoch 73166/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
 0.9593  
 Epoch 73167/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0288 - accuracy:  
 0.9600  
 Epoch 73168/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy:  
 0.9588  
 Epoch 73169/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
 0.9607  
 Epoch 73170/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
 0.9591  
 Epoch 73171/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:  
 0.9601  
 Epoch 73172/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
 0.9602  
 Epoch 73173/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
 0.9602  
 Epoch 73174/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0289 - accuracy:  
 0.9599  
 Epoch 73175/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
 0.9595  
 Epoch 73176/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:  
 0.9590  
 Epoch 73177/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy:  
 0.9593  
 Epoch 73178/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
 0.9599  
 Epoch 73179/100000  
 2/2 [=====] - 0s 122ms/step - loss: 0.0284 - accuracy:  
 0.9595  
 Epoch 73180/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:

0.9595  
Epoch 73181/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0280 - accuracy:  
0.9586  
Epoch 73182/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9600  
Epoch 73183/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
0.9597  
Epoch 73184/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9597  
Epoch 73185/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9592  
Epoch 73186/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0296 - accuracy:  
0.9602  
Epoch 73187/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9594  
Epoch 73188/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0288 - accuracy:  
0.9592  
Epoch 73189/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
0.9601  
Epoch 73190/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0289 - accuracy:  
0.9599  
Epoch 73191/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9601  
Epoch 73192/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy:  
0.9593  
Epoch 73193/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
0.9583  
Epoch 73194/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy:  
0.9599  
Epoch 73195/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy:  
0.9601  
Epoch 73196/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:

0.9604  
 Epoch 73197/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
 0.9600  
 Epoch 73198/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
 0.9602  
 Epoch 73199/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
 0.9590  
 Epoch 73200/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0308 - accuracy:  
 0.9593  
 Epoch 73201/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
 0.9594  
 Epoch 73202/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
 0.9601  
 Epoch 73203/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
 0.9592  
 Epoch 73204/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
 0.9596  
 Epoch 73205/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
 0.9588  
 Epoch 73206/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0311 - accuracy:  
 0.9592  
 Epoch 73207/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
 0.9583  
 Epoch 73208/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy:  
 0.9589  
 Epoch 73209/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
 0.9598  
 Epoch 73210/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
 0.9588  
 Epoch 73211/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
 0.9603  
 Epoch 73212/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:

0.9597  
Epoch 73213/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy: 0.9597  
Epoch 73214/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0290 - accuracy: 0.9593  
Epoch 73215/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0292 - accuracy: 0.9597  
Epoch 73216/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9588  
Epoch 73217/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy: 0.9593  
Epoch 73218/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy: 0.9599  
Epoch 73219/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy: 0.9596  
Epoch 73220/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy: 0.9592  
Epoch 73221/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9586  
Epoch 73222/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy: 0.9596  
Epoch 73223/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy: 0.9588  
Epoch 73224/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy: 0.9607  
Epoch 73225/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy: 0.9599  
Epoch 73226/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy: 0.9598  
Epoch 73227/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy: 0.9598  
Epoch 73228/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0287 - accuracy:

0.9597  
 Epoch 73229/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
 0.9597  
 Epoch 73230/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0291 - accuracy:  
 0.9594  
 Epoch 73231/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
 0.9588  
 Epoch 73232/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
 0.9593  
 Epoch 73233/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
 0.9591  
 Epoch 73234/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0286 - accuracy:  
 0.9598  
 Epoch 73235/100000  
 2/2 [=====] - 0s 123ms/step - loss: 0.0280 - accuracy:  
 0.9595  
 Epoch 73236/100000  
 2/2 [=====] - 0s 123ms/step - loss: 0.0286 - accuracy:  
 0.9605  
 Epoch 73237/100000  
 2/2 [=====] - 0s 122ms/step - loss: 0.0288 - accuracy:  
 0.9601  
 Epoch 73238/100000  
 2/2 [=====] - 0s 124ms/step - loss: 0.0297 - accuracy:  
 0.9587  
 Epoch 73239/100000  
 2/2 [=====] - 0s 125ms/step - loss: 0.0290 - accuracy:  
 0.9599  
 Epoch 73240/100000  
 2/2 [=====] - 0s 137ms/step - loss: 0.0286 - accuracy:  
 0.9599  
 Epoch 73241/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0289 - accuracy:  
 0.9596  
 Epoch 73242/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
 0.9603  
 Epoch 73243/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
 0.9598  
 Epoch 73244/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:

0.9595  
Epoch 73245/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy: 0.9604  
Epoch 73246/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0292 - accuracy: 0.9599  
Epoch 73247/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9594  
Epoch 73248/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0291 - accuracy: 0.9594  
Epoch 73249/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy: 0.9597  
Epoch 73250/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy: 0.9599  
Epoch 73251/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9594  
Epoch 73252/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0282 - accuracy: 0.9598  
Epoch 73253/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy: 0.9603  
Epoch 73254/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy: 0.9603  
Epoch 73255/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy: 0.9591  
Epoch 73256/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0281 - accuracy: 0.9604  
Epoch 73257/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy: 0.9592  
Epoch 73258/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9607  
Epoch 73259/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0294 - accuracy: 0.9605  
Epoch 73260/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:



0.9589  
 Epoch 73261/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0293 - accuracy:  
 0.9607  
 Epoch 73262/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
 0.9587  
 Epoch 73263/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
 0.9585  
 Epoch 73264/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
 0.9595  
 Epoch 73265/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
 0.9601  
 Epoch 73266/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
 0.9593  
 Epoch 73267/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
 0.9592  
 Epoch 73268/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
 0.9597  
 Epoch 73269/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy:  
 0.9590  
 Epoch 73270/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
 0.9592  
 Epoch 73271/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0291 - accuracy:  
 0.9588  
 Epoch 73272/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
 0.9587  
 Epoch 73273/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
 0.9593  
 Epoch 73274/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
 0.9605  
 Epoch 73275/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0294 - accuracy:  
 0.9594  
 Epoch 73276/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:

0.9598  
Epoch 73277/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy: 0.9595  
Epoch 73278/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy: 0.9595  
Epoch 73279/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy: 0.9595  
Epoch 73280/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0288 - accuracy: 0.9594  
Epoch 73281/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy: 0.9603  
Epoch 73282/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0295 - accuracy: 0.9599  
Epoch 73283/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9594  
Epoch 73284/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9581  
Epoch 73285/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9610  
Epoch 73286/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9589  
Epoch 73287/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy: 0.9596  
Epoch 73288/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9601  
Epoch 73289/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0287 - accuracy: 0.9596  
Epoch 73290/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0292 - accuracy: 0.9603  
Epoch 73291/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy: 0.9604  
Epoch 73292/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:

0.9590  
Epoch 73293/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0294 - accuracy: 0.9594  
Epoch 73294/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy: 0.9591  
Epoch 73295/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy: 0.9604  
Epoch 73296/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9596  
Epoch 73297/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9603  
Epoch 73298/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0293 - accuracy: 0.9589  
Epoch 73299/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0290 - accuracy: 0.9594  
Epoch 73300/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy: 0.9594  
Epoch 73301/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0285 - accuracy: 0.9590  
Epoch 73302/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy: 0.9600  
Epoch 73303/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0290 - accuracy: 0.9594  
Epoch 73304/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy: 0.9594  
Epoch 73305/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0288 - accuracy: 0.9595  
Epoch 73306/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy: 0.9596  
Epoch 73307/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0292 - accuracy: 0.9603  
Epoch 73308/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:

0.9598  
 Epoch 73309/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0302 - accuracy:  
 0.9593  
 Epoch 73310/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
 0.9594  
 Epoch 73311/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0290 - accuracy:  
 0.9593  
 Epoch 73312/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0291 - accuracy:  
 0.9593  
 Epoch 73313/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
 0.9606  
 Epoch 73314/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0290 - accuracy:  
 0.9597  
 Epoch 73315/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
 0.9589  
 Epoch 73316/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
 0.9587  
 Epoch 73317/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
 0.9600  
 Epoch 73318/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
 0.9592  
 Epoch 73319/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0284 - accuracy:  
 0.9595  
 Epoch 73320/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy:  
 0.9594  
 Epoch 73321/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0292 - accuracy:  
 0.9595  
 Epoch 73322/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
 0.9595  
 Epoch 73323/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy:  
 0.9593  
 Epoch 73324/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:

0.9601  
 Epoch 73325/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0289 - accuracy:  
 0.9602  
 Epoch 73326/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:  
 0.9596  
 Epoch 73327/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
 0.9599  
 Epoch 73328/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy:  
 0.9586  
 Epoch 73329/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0292 - accuracy:  
 0.9600  
 Epoch 73330/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy:  
 0.9599  
 Epoch 73331/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
 0.9588  
 Epoch 73332/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0290 - accuracy:  
 0.9598  
 Epoch 73333/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
 0.9593  
 Epoch 73334/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
 0.9596  
 Epoch 73335/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
 0.9605  
 Epoch 73336/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy:  
 0.9594  
 Epoch 73337/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0281 - accuracy:  
 0.9587  
 Epoch 73338/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:  
 0.9594  
 Epoch 73339/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
 0.9596  
 Epoch 73340/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy:

0.9606  
 Epoch 73341/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
 0.9591  
 Epoch 73342/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
 0.9593  
 Epoch 73343/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
 0.9602  
 Epoch 73344/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
 0.9587  
 Epoch 73345/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0289 - accuracy:  
 0.9602  
 Epoch 73346/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
 0.9591  
 Epoch 73347/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy:  
 0.9590  
 Epoch 73348/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:  
 0.9596  
 Epoch 73349/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy:  
 0.9598  
 Epoch 73350/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy:  
 0.9601  
 Epoch 73351/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0293 - accuracy:  
 0.9603  
 Epoch 73352/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
 0.9597  
 Epoch 73353/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0288 - accuracy:  
 0.9596  
 Epoch 73354/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
 0.9601  
 Epoch 73355/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
 0.9599  
 Epoch 73356/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy:

0.9593  
 Epoch 73357/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
 0.9600  
 Epoch 73358/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy:  
 0.9601  
 Epoch 73359/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
 0.9603  
 Epoch 73360/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
 0.9602  
 Epoch 73361/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0291 - accuracy:  
 0.9585  
 Epoch 73362/100000  
 2/2 [=====] - 0s 120ms/step - loss: 0.0294 - accuracy:  
 0.9599  
 Epoch 73363/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
 0.9607  
 Epoch 73364/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0293 - accuracy:  
 0.9606  
 Epoch 73365/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0293 - accuracy:  
 0.9601  
 Epoch 73366/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0293 - accuracy:  
 0.9597  
 Epoch 73367/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy:  
 0.9592  
 Epoch 73368/100000  
 2/2 [=====] - 0s 120ms/step - loss: 0.0287 - accuracy:  
 0.9595  
 Epoch 73369/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
 0.9599  
 Epoch 73370/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
 0.9589  
 Epoch 74083/100000  
 2/2 [=====] - 0s 121ms/step - loss: 0.0289 - accuracy:  
 0.9597  
 Epoch 74084/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:

0.9595  
 Epoch 74085/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0290 - accuracy:  
 0.9594  
 Epoch 74086/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0292 - accuracy:  
 0.9602  
 Epoch 74087/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
 0.9582  
 Epoch 74088/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
 0.9591  
 Epoch 74089/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0295 - accuracy:  
 0.9598  
 Epoch 74090/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy:  
 0.9600  
 Epoch 74091/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
 0.9598  
 Epoch 74092/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
 0.9594  
 Epoch 74093/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
 0.9594  
 Epoch 74094/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy:  
 0.9594  
 Epoch 74095/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
 0.9587  
 Epoch 74096/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
 0.9596  
 Epoch 74097/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
 0.9599  
 Epoch 74098/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0289 - accuracy:  
 0.9602  
 Epoch 74099/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy:  
 0.9596  
 Epoch 74100/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:



0.9600  
Epoch 74101/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0290 - accuracy: 0.9591  
Epoch 74102/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy: 0.9596  
Epoch 74103/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy: 0.9604  
Epoch 74104/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy: 0.9598  
Epoch 74105/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy: 0.9585  
Epoch 74106/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0292 - accuracy: 0.9592  
Epoch 74107/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy: 0.9595  
Epoch 74108/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy: 0.9589  
Epoch 74109/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy: 0.9604  
Epoch 74110/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy: 0.9598  
Epoch 74111/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0286 - accuracy: 0.9590  
Epoch 74112/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy: 0.9591  
Epoch 74113/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy: 0.9597  
Epoch 74114/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy: 0.9594  
Epoch 74115/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0287 - accuracy: 0.9593  
Epoch 74116/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:

0.9601  
Epoch 74117/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9592  
Epoch 74118/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy: 0.9598  
Epoch 74119/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy: 0.9595  
Epoch 74120/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy: 0.9606  
Epoch 74121/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy: 0.9590  
Epoch 74122/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy: 0.9594  
Epoch 74123/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy: 0.9593  
Epoch 74124/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0288 - accuracy: 0.9602  
Epoch 74125/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy: 0.9595  
Epoch 74126/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy: 0.9609  
Epoch 74127/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy: 0.9591  
Epoch 74128/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9601  
Epoch 74129/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy: 0.9598  
Epoch 74130/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy: 0.9599  
Epoch 74131/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy: 0.9597  
Epoch 74132/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:

0.9594  
Epoch 74133/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9603  
Epoch 74134/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0283 - accuracy: 0.9589  
Epoch 74135/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0284 - accuracy: 0.9594  
Epoch 74136/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy: 0.9602  
Epoch 74137/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy: 0.9599  
Epoch 74138/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0290 - accuracy: 0.9590  
Epoch 74139/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy: 0.9597  
Epoch 74140/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9596  
Epoch 74141/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy: 0.9592  
Epoch 74142/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0289 - accuracy: 0.9597  
Epoch 74143/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy: 0.9602  
Epoch 74144/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0286 - accuracy: 0.9591  
Epoch 74145/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9601  
Epoch 74146/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9600  
Epoch 74147/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy: 0.9607  
Epoch 74148/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0287 - accuracy:

0.9603  
Epoch 74149/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy: 0.9587  
Epoch 74150/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy: 0.9603  
Epoch 74151/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy: 0.9595  
Epoch 74152/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy: 0.9587  
Epoch 74153/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy: 0.9584  
Epoch 74154/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy: 0.9608  
Epoch 74155/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy: 0.9600  
Epoch 74156/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0308 - accuracy: 0.9595  
Epoch 74157/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy: 0.9584  
Epoch 74158/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9596  
Epoch 74159/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy: 0.9593  
Epoch 74160/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9591  
Epoch 74161/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0308 - accuracy: 0.9594  
Epoch 74162/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0310 - accuracy: 0.9596  
Epoch 74163/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy: 0.9604  
Epoch 74164/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0293 - accuracy:

0.9604  
 Epoch 74165/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
 0.9594  
 Epoch 74166/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy:  
 0.9591  
 Epoch 74167/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0289 - accuracy:  
 0.9593  
 Epoch 74168/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:  
 0.9600  
 Epoch 74169/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy:  
 0.9600  
 Epoch 74170/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
 0.9588  
 Epoch 74171/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
 0.9613  
 Epoch 74172/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
 0.9600  
 Epoch 74173/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0296 - accuracy:  
 0.9602  
 Epoch 74174/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
 0.9605  
 Epoch 74175/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
 0.9593  
 Epoch 74176/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
 0.9592  
 Epoch 74177/100000  
 2/2 [=====] - 0s 122ms/step - loss: 0.0288 - accuracy:  
 0.9593  
 Epoch 74178/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
 0.9612  
 Epoch 74179/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy:  
 0.9597  
 Epoch 74180/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:

0.9603  
 Epoch 74181/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy:  
 0.9589  
 Epoch 74182/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
 0.9599  
 Epoch 74183/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
 0.9599  
 Epoch 74184/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
 0.9596  
 Epoch 74185/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0284 - accuracy:  
 0.9592  
 Epoch 74186/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy:  
 0.9593  
 Epoch 74187/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
 0.9599  
 Epoch 74188/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
 0.9600  
 Epoch 74189/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0294 - accuracy:  
 0.9591  
 Epoch 74190/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
 0.9596  
 Epoch 74191/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
 0.9594  
 Epoch 74192/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
 0.9601  
 Epoch 74193/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0289 - accuracy:  
 0.9605  
 Epoch 74194/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
 0.9592  
 Epoch 74195/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
 0.9590  
 Epoch 74196/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:

0.9596  
Epoch 74197/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9597  
Epoch 74198/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy: 0.9592  
Epoch 74199/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0288 - accuracy: 0.9597  
Epoch 74200/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9600  
Epoch 74201/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy: 0.9590  
Epoch 74202/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9601  
Epoch 74203/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy: 0.9607  
Epoch 74204/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0292 - accuracy: 0.9590  
Epoch 74205/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9597  
Epoch 74206/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy: 0.9602  
Epoch 74207/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy: 0.9599  
Epoch 74208/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy: 0.9601  
Epoch 74209/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy: 0.9603  
Epoch 74210/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy: 0.9593  
Epoch 74211/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy: 0.9590  
Epoch 74212/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:

0.9606  
Epoch 74213/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy: 0.9589  
Epoch 74214/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy: 0.9598  
Epoch 74215/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy: 0.9594  
Epoch 74216/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9604  
Epoch 74217/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy: 0.9599  
Epoch 74218/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0292 - accuracy: 0.9595  
Epoch 74219/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy: 0.9609  
Epoch 74220/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy: 0.9591  
Epoch 74221/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy: 0.9607  
Epoch 74222/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy: 0.9597  
Epoch 74223/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy: 0.9592  
Epoch 74224/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0290 - accuracy: 0.9603  
Epoch 74225/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9598  
Epoch 74226/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9588  
Epoch 74227/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0291 - accuracy: 0.9599  
Epoch 74228/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:



```

0.9593
Epoch 74229/100000
2/2 [=====] - 0s 119ms/step - loss: 0.0287 - accuracy:
0.9592
Epoch 74230/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:
0.9596
Epoch 74231/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy:
0.9594
Epoch 74232/100000
2/2 [=====] - 0s 122ms/step - loss: 0.0289 - accuracy:
0.9599
Epoch 74233/100000
2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy:
0.9595
Epoch 74234/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:
0.9592
Epoch 74235/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:
0.9590
Epoch 74236/100000
2/2 [=====] - 0s 118ms/step - loss: 0.0290 - accuracy:
0.9595
Epoch 74237/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:
0.9603
Epoch 74238/100000
2/2 [=====] - 0s 117ms/step - loss: 0.0290 - accuracy:
0.9598
Epoch 74239/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:
0.9597
Epoch 74240/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:
0.9594
Epoch 74241/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:
0.9604
Epoch 74242/100000
2/2 [=====] - 0s 119ms/step - loss: 0.0289 - accuracy:
0.9597
Epoch 74243/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0280 - accuracy:
0.9592
Epoch 74244/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:

```

0.9587  
Epoch 74245/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0289 - accuracy:  
0.9599  
Epoch 74246/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
0.9600  
Epoch 74247/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy:  
0.9597  
Epoch 74248/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
0.9597  
Epoch 74249/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9599  
Epoch 74250/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9606  
Epoch 74251/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
0.9592  
Epoch 74252/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9598  
Epoch 74253/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9605  
Epoch 74254/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy:  
0.9593  
Epoch 74255/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0295 - accuracy:  
0.9597  
Epoch 74256/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9590  
Epoch 74257/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9604  
Epoch 74258/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy:  
0.9596  
Epoch 74259/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9606  
Epoch 74260/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0295 - accuracy:

```

0.9594
Epoch 74261/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:
0.9589
Epoch 74262/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy:
0.9597
Epoch 74263/100000
2/2 [=====] - 0s 122ms/step - loss: 0.0291 - accuracy:
0.9591
Epoch 74264/100000
2/2 [=====] - 0s 117ms/step - loss: 0.0287 - accuracy:
0.9595
Epoch 74265/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:
0.9592
Epoch 74266/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:
0.9595
Epoch 74267/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:
0.9599
Epoch 74268/100000
2/2 [=====] - 0s 123ms/step - loss: 0.0288 - accuracy:
0.9602
Epoch 74269/100000
2/2 [=====] - 0s 125ms/step - loss: 0.0285 - accuracy:
0.9595
Epoch 74270/100000
2/2 [=====] - 0s 123ms/step - loss: 0.0293 - accuracy:
0.9600
Epoch 74271/100000
2/2 [=====] - 0s 130ms/step - loss: 0.0289 - accuracy:
0.9595
Epoch 74272/100000
2/2 [=====] - 0s 136ms/step - loss: 0.0290 - accuracy:
0.9597
Epoch 74273/100000
2/2 [=====] - 0s 124ms/step - loss: 0.0299 - accuracy:
0.9596
Epoch 74274/100000
2/2 [=====] - 0s 122ms/step - loss: 0.0286 - accuracy:
0.9590
Epoch 74275/100000
2/2 [=====] - 0s 124ms/step - loss: 0.0290 - accuracy:
0.9604
Epoch 74276/100000
2/2 [=====] - 0s 116ms/step - loss: 0.0293 - accuracy:

```

0.9597  
Epoch 74277/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy: 0.9588  
Epoch 74278/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9596  
Epoch 74279/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy: 0.9605  
Epoch 74280/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy: 0.9590  
Epoch 74281/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0316 - accuracy: 0.9590  
Epoch 74282/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0295 - accuracy: 0.9602  
Epoch 74283/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy: 0.9595  
Epoch 74284/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy: 0.9609  
Epoch 74285/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9598  
Epoch 74286/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9592  
Epoch 74287/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy: 0.9601  
Epoch 74288/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy: 0.9594  
Epoch 74289/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy: 0.9591  
Epoch 74290/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy: 0.9591  
Epoch 74291/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0288 - accuracy: 0.9595  
Epoch 74292/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:

0.9600  
Epoch 74293/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0289 - accuracy: 0.9585  
Epoch 74294/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9596  
Epoch 74295/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9595  
Epoch 74296/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy: 0.9596  
Epoch 74297/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy: 0.9606  
Epoch 74298/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9589  
Epoch 74299/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy: 0.9595  
Epoch 74300/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy: 0.9595  
Epoch 74301/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy: 0.9592  
Epoch 74302/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0291 - accuracy: 0.9598  
Epoch 74303/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0290 - accuracy: 0.9599  
Epoch 74304/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy: 0.9602  
Epoch 74305/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy: 0.9596  
Epoch 74306/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9595  
Epoch 74307/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0286 - accuracy: 0.9604  
Epoch 74308/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:

0.9583  
 Epoch 74309/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:  
 0.9589  
 Epoch 74310/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
 0.9589  
 Epoch 74311/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:  
 0.9593  
 Epoch 74312/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0288 - accuracy:  
 0.9611  
 Epoch 74313/100000  
 2/2 [=====] - 0s 120ms/step - loss: 0.0282 - accuracy:  
 0.9585  
 Epoch 74314/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0293 - accuracy:  
 0.9594  
 Epoch 74315/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0287 - accuracy:  
 0.9597  
 Epoch 74316/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0284 - accuracy:  
 0.9591  
 Epoch 74317/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy:  
 0.9594  
 Epoch 74318/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
 0.9600  
 Epoch 74319/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
 0.9605  
 Epoch 74320/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0293 - accuracy:  
 0.9596  
 Epoch 74321/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy:  
 0.9594  
 Epoch 74322/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
 0.9596  
 Epoch 74323/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0298 - accuracy:  
 0.9593  
 Epoch 74324/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy:

0.9593  
Epoch 74325/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy: 0.9598  
Epoch 74326/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy: 0.9589  
Epoch 74327/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy: 0.9599  
Epoch 74328/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy: 0.9595  
Epoch 74329/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy: 0.9592  
Epoch 74330/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy: 0.9586  
Epoch 74331/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy: 0.9596  
Epoch 74332/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy: 0.9596  
Epoch 74333/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy: 0.9598  
Epoch 74334/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0290 - accuracy: 0.9588  
Epoch 74335/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy: 0.9585  
Epoch 74336/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0296 - accuracy: 0.9593  
Epoch 74337/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0293 - accuracy: 0.9589  
Epoch 74338/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy: 0.9597  
Epoch 74339/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0292 - accuracy: 0.9600  
Epoch 74340/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:

0.9590  
Epoch 74341/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy:  
0.9599  
Epoch 74342/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0288 - accuracy:  
0.9595  
Epoch 74343/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:  
0.9602  
Epoch 74344/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9593  
Epoch 74345/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
0.9599  
Epoch 74346/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
0.9594  
Epoch 74347/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
0.9595  
Epoch 74348/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9598  
Epoch 74349/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy:  
0.9601  
Epoch 74350/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
0.9596  
Epoch 74351/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9594  
Epoch 74352/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9603  
Epoch 74353/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
0.9598  
Epoch 74354/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:  
0.9584  
Epoch 74355/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
0.9599  
Epoch 74356/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:



0.9594  
 Epoch 74357/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy:  
 0.9600  
 Epoch 74358/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0290 - accuracy:  
 0.9589  
 Epoch 74359/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0288 - accuracy:  
 0.9598  
 Epoch 74360/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0291 - accuracy:  
 0.9594  
 Epoch 74361/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
 0.9599  
 Epoch 74362/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
 0.9590  
 Epoch 74363/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0291 - accuracy:  
 0.9599  
 Epoch 74364/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
 0.9598  
 Epoch 74365/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy:  
 0.9605  
 Epoch 74366/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy:  
 0.9600  
 Epoch 74367/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:  
 0.9592  
 Epoch 74368/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
 0.9599  
 Epoch 74369/100000  
 2/2 [=====] - 0s 123ms/step - loss: 0.0284 - accuracy:  
 0.9584  
 Epoch 74370/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy:  
 0.9604  
 Epoch 74371/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
 0.9591  
 Epoch 74372/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:

0.9601  
Epoch 74373/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy: 0.9593  
Epoch 74374/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy: 0.9588  
Epoch 74375/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy: 0.9597  
Epoch 74376/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9598  
Epoch 74377/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy: 0.9602  
Epoch 74378/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9606  
Epoch 74379/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0284 - accuracy: 0.9593  
Epoch 74380/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy: 0.9598  
Epoch 74381/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy: 0.9596  
Epoch 74382/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0282 - accuracy: 0.9602  
Epoch 74383/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy: 0.9599  
Epoch 74384/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy: 0.9596  
Epoch 74385/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0287 - accuracy: 0.9592  
Epoch 74386/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0282 - accuracy: 0.9603  
Epoch 74387/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy: 0.9592  
Epoch 74388/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:

```

0.9596
Epoch 74389/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:
0.9593
Epoch 74390/100000
2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy:
0.9593
Epoch 74391/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:
0.9603
Epoch 74392/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:
0.9593
Epoch 74393/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:
0.9598
Epoch 74394/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy:
0.9599
Epoch 74395/100000
2/2 [=====] - 0s 117ms/step - loss: 0.0294 - accuracy:
0.9592
Epoch 74396/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy:
0.9600
Epoch 74397/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:
0.9595
Epoch 75124/100000
2/2 [=====] - 0s 117ms/step - loss: 0.0293 - accuracy:
0.9593
Epoch 75125/100000
2/2 [=====] - 0s 116ms/step - loss: 0.0290 - accuracy:
0.9593
Epoch 75126/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:
0.9593
Epoch 75127/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:
0.9598
Epoch 75128/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:
0.9597
Epoch 75129/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:
0.9594
Epoch 75130/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy:

```

0.9587  
 Epoch 75131/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy:  
 0.9600  
 Epoch 75132/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0290 - accuracy:  
 0.9598  
 Epoch 75133/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0292 - accuracy:  
 0.9594  
 Epoch 75134/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
 0.9599  
 Epoch 75135/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0289 - accuracy:  
 0.9593  
 Epoch 75136/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy:  
 0.9588  
 Epoch 75137/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy:  
 0.9600  
 Epoch 75138/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
 0.9591  
 Epoch 75139/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0283 - accuracy:  
 0.9594  
 Epoch 75140/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy:  
 0.9592  
 Epoch 75141/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
 0.9597  
 Epoch 75142/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
 0.9601  
 Epoch 75143/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0282 - accuracy:  
 0.9599  
 Epoch 75144/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
 0.9599  
 Epoch 75145/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
 0.9594  
 Epoch 75146/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0287 - accuracy:

0.9589  
 Epoch 75147/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:  
 0.9596  
 Epoch 75148/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
 0.9589  
 Epoch 75149/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
 0.9600  
 Epoch 75150/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
 0.9584  
 Epoch 75151/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
 0.9589  
 Epoch 75152/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:  
 0.9597  
 Epoch 75153/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
 0.9592  
 Epoch 75154/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy:  
 0.9593  
 Epoch 75155/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
 0.9597  
 Epoch 75156/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
 0.9605  
 Epoch 75157/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
 0.9600  
 Epoch 75158/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
 0.9595  
 Epoch 75159/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy:  
 0.9596  
 Epoch 75160/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0289 - accuracy:  
 0.9595  
 Epoch 75161/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
 0.9599  
 Epoch 75162/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:

0.9604  
Epoch 75163/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy: 0.9605  
Epoch 75164/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy: 0.9591  
Epoch 75165/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy: 0.9601  
Epoch 75166/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy: 0.9600  
Epoch 75167/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy: 0.9595  
Epoch 75168/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy: 0.9595  
Epoch 75169/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy: 0.9603  
Epoch 75170/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy: 0.9593  
Epoch 75171/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy: 0.9597  
Epoch 75172/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9600  
Epoch 75173/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0283 - accuracy: 0.9590  
Epoch 75174/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0291 - accuracy: 0.9598  
Epoch 75175/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0283 - accuracy: 0.9596  
Epoch 75176/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy: 0.9598  
Epoch 75177/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0289 - accuracy: 0.9594  
Epoch 75178/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy:

0.9599  
 Epoch 75179/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy:  
 0.9596  
 Epoch 75180/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
 0.9591  
 Epoch 75181/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
 0.9598  
 Epoch 75182/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
 0.9595  
 Epoch 75183/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
 0.9594  
 Epoch 75184/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0291 - accuracy:  
 0.9601  
 Epoch 75185/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy:  
 0.9594  
 Epoch 75186/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
 0.9599  
 Epoch 75187/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0281 - accuracy:  
 0.9595  
 Epoch 75188/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0286 - accuracy:  
 0.9593  
 Epoch 75189/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0283 - accuracy:  
 0.9591  
 Epoch 75190/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0280 - accuracy:  
 0.9592  
 Epoch 75191/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy:  
 0.9597  
 Epoch 75192/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy:  
 0.9596  
 Epoch 75193/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
 0.9596  
 Epoch 75194/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:

0.9602  
Epoch 75195/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0288 - accuracy: 0.9593  
Epoch 75196/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy: 0.9591  
Epoch 75197/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy: 0.9599  
Epoch 75198/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy: 0.9591  
Epoch 75199/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0291 - accuracy: 0.9596  
Epoch 75200/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0290 - accuracy: 0.9607  
Epoch 75201/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0289 - accuracy: 0.9597  
Epoch 75202/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0295 - accuracy: 0.9594  
Epoch 75203/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy: 0.9587  
Epoch 75204/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy: 0.9605  
Epoch 75205/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy: 0.9598  
Epoch 75206/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy: 0.9590  
Epoch 75207/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy: 0.9600  
Epoch 75208/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0292 - accuracy: 0.9593  
Epoch 75209/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy: 0.9592  
Epoch 75210/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0295 - accuracy:



0.9589  
 Epoch 75211/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
 0.9595  
 Epoch 75212/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
 0.9595  
 Epoch 75213/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0294 - accuracy:  
 0.9594  
 Epoch 75214/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
 0.9601  
 Epoch 75215/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
 0.9600  
 Epoch 75216/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
 0.9598  
 Epoch 75217/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
 0.9594  
 Epoch 75218/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy:  
 0.9603  
 Epoch 75219/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
 0.9598  
 Epoch 75220/100000  
 2/2 [=====] - 0s 121ms/step - loss: 0.0291 - accuracy:  
 0.9595  
 Epoch 75221/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0290 - accuracy:  
 0.9594  
 Epoch 75222/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
 0.9597  
 Epoch 75223/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
 0.9604  
 Epoch 75224/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
 0.9590  
 Epoch 75225/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0291 - accuracy:  
 0.9590  
 Epoch 75226/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:

0.9603  
 Epoch 75227/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0288 - accuracy:  
 0.9596  
 Epoch 75228/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0289 - accuracy:  
 0.9601  
 Epoch 75229/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0286 - accuracy:  
 0.9601  
 Epoch 75230/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0286 - accuracy:  
 0.9592  
 Epoch 75231/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
 0.9595  
 Epoch 75232/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
 0.9595  
 Epoch 75233/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0286 - accuracy:  
 0.9600  
 Epoch 75234/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0286 - accuracy:  
 0.9599  
 Epoch 75235/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
 0.9594  
 Epoch 75236/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
 0.9598  
 Epoch 75237/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy:  
 0.9597  
 Epoch 75238/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy:  
 0.9604  
 Epoch 75239/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0292 - accuracy:  
 0.9586  
 Epoch 75240/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
 0.9604  
 Epoch 75241/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
 0.9602  
 Epoch 75242/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:

0.9602  
 Epoch 75243/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
 0.9603  
 Epoch 75244/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy:  
 0.9601  
 Epoch 75245/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:  
 0.9593  
 Epoch 75246/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
 0.9603  
 Epoch 75247/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
 0.9596  
 Epoch 75248/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy:  
 0.9602  
 Epoch 75249/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
 0.9597  
 Epoch 75250/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:  
 0.9596  
 Epoch 75251/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0283 - accuracy:  
 0.9597  
 Epoch 75252/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0281 - accuracy:  
 0.9592  
 Epoch 75253/100000  
 2/2 [=====] - 0s 113ms/step - loss: 0.0286 - accuracy:  
 0.9597  
 Epoch 75254/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0283 - accuracy:  
 0.9598  
 Epoch 75255/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
 0.9591  
 Epoch 75256/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
 0.9593  
 Epoch 75257/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
 0.9588  
 Epoch 75258/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:

0.9602  
Epoch 75259/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0291 - accuracy: 0.9598  
Epoch 75260/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy: 0.9588  
Epoch 75261/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0293 - accuracy: 0.9596  
Epoch 75262/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy: 0.9592  
Epoch 75263/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy: 0.9601  
Epoch 75264/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy: 0.9608  
Epoch 75265/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy: 0.9606  
Epoch 75266/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy: 0.9603  
Epoch 75267/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0286 - accuracy: 0.9593  
Epoch 75268/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy: 0.9603  
Epoch 75269/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy: 0.9605  
Epoch 75270/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy: 0.9598  
Epoch 75271/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy: 0.9594  
Epoch 75272/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy: 0.9601  
Epoch 75273/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9593  
Epoch 75274/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:

```

0.9592
Epoch 75275/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:
0.9596
Epoch 75276/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:
0.9598
Epoch 75277/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:
0.9600
Epoch 75278/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:
0.9599
Epoch 75279/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:
0.9600
Epoch 75280/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:
0.9596
Epoch 75281/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:
0.9597
Epoch 75282/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:
0.9594
Epoch 75283/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:
0.9598
Epoch 75284/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy:
0.9600
Epoch 75285/100000
2/2 [=====] - 0s 120ms/step - loss: 0.0287 - accuracy:
0.9600
Epoch 75286/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:
0.9594
Epoch 75287/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:
0.9594
Epoch 75288/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:
0.9580
Epoch 75289/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:
0.9594
Epoch 75290/100000
2/2 [=====] - 0s 118ms/step - loss: 0.0290 - accuracy:

```

0.9599  
Epoch 75291/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
0.9582  
Epoch 75292/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy:  
0.9597  
Epoch 75293/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9597  
Epoch 75294/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9591  
Epoch 75295/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
0.9590  
Epoch 75296/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9601  
Epoch 75297/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9605  
Epoch 75298/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9592  
Epoch 75299/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
0.9598  
Epoch 75300/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:  
0.9592  
Epoch 75301/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0293 - accuracy:  
0.9605  
Epoch 75302/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9600  
Epoch 75303/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9603  
Epoch 75304/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9595  
Epoch 75305/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0291 - accuracy:  
0.9590  
Epoch 75306/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:

0.9593  
Epoch 75307/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9602  
Epoch 75308/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
0.9603  
Epoch 75309/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0290 - accuracy:  
0.9601  
Epoch 75310/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9607  
Epoch 75311/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0288 - accuracy:  
0.9593  
Epoch 75312/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
0.9601  
Epoch 75313/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9594  
Epoch 75314/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy:  
0.9602  
Epoch 75315/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0292 - accuracy:  
0.9591  
Epoch 75316/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0289 - accuracy:  
0.9594  
Epoch 75317/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy:  
0.9595  
Epoch 75318/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0292 - accuracy:  
0.9601  
Epoch 75319/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
0.9598  
Epoch 75320/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
0.9599  
Epoch 75321/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
0.9599  
Epoch 75322/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy:

0.9602  
Epoch 75323/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0284 - accuracy: 0.9588  
Epoch 75324/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy: 0.9597  
Epoch 75325/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0287 - accuracy: 0.9593  
Epoch 75326/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy: 0.9589  
Epoch 75327/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9593  
Epoch 75328/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy: 0.9590  
Epoch 75329/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy: 0.9593  
Epoch 75330/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy: 0.9590  
Epoch 75331/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy: 0.9598  
Epoch 75332/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0284 - accuracy: 0.9594  
Epoch 75333/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0292 - accuracy: 0.9604  
Epoch 75334/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy: 0.9605  
Epoch 75335/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy: 0.9590  
Epoch 75336/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0285 - accuracy: 0.9593  
Epoch 75337/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy: 0.9593  
Epoch 75338/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:



0.9600  
Epoch 75339/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9597  
Epoch 75340/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
0.9602  
Epoch 75341/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy:  
0.9591  
Epoch 75342/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9600  
Epoch 75852/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9606  
Epoch 75853/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy:  
0.9594  
Epoch 75854/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0284 - accuracy:  
0.9590  
Epoch 75855/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9594  
Epoch 75856/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9600  
Epoch 75857/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy:  
0.9598  
Epoch 75858/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0286 - accuracy:  
0.9601  
Epoch 75859/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0284 - accuracy:  
0.9588  
Epoch 75860/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9598  
Epoch 75861/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0288 - accuracy:  
0.9606  
Epoch 75862/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0285 - accuracy:  
0.9598  
Epoch 75863/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy:

0.9599  
Epoch 75864/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0279 - accuracy: 0.9598  
Epoch 75865/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy: 0.9602  
Epoch 75866/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy: 0.9600  
Epoch 75867/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy: 0.9605  
Epoch 75868/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy: 0.9590  
Epoch 75869/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0289 - accuracy: 0.9597  
Epoch 75870/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy: 0.9602  
Epoch 75871/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy: 0.9602  
Epoch 75872/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy: 0.9592  
Epoch 75873/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9598  
Epoch 75874/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9597  
Epoch 75875/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9597  
Epoch 75876/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy: 0.9588  
Epoch 75877/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy: 0.9603  
Epoch 75878/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0288 - accuracy: 0.9604  
Epoch 75879/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:

0.9602  
Epoch 75880/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0283 - accuracy:  
0.9594  
Epoch 75881/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:  
0.9601  
Epoch 75882/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9597  
Epoch 75883/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0287 - accuracy:  
0.9599  
Epoch 75884/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
0.9595  
Epoch 75885/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
0.9603  
Epoch 75886/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
0.9592  
Epoch 75887/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9600  
Epoch 75888/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy:  
0.9595  
Epoch 75889/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9591  
Epoch 75890/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0285 - accuracy:  
0.9593  
Epoch 75891/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9592  
Epoch 75892/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9593  
Epoch 75893/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9597  
Epoch 75894/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
0.9596  
Epoch 75895/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:

0.9599  
 Epoch 75896/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
 0.9596  
 Epoch 75897/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
 0.9603  
 Epoch 75898/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy:  
 0.9599  
 Epoch 75899/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy:  
 0.9592  
 Epoch 75900/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0287 - accuracy:  
 0.9600  
 Epoch 75901/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
 0.9594  
 Epoch 75902/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy:  
 0.9603  
 Epoch 75903/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
 0.9602  
 Epoch 75904/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0282 - accuracy:  
 0.9588  
 Epoch 75905/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:  
 0.9588  
 Epoch 75906/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy:  
 0.9596  
 Epoch 75907/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy:  
 0.9596  
 Epoch 75908/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
 0.9585  
 Epoch 75909/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
 0.9590  
 Epoch 75910/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
 0.9601  
 Epoch 75911/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:

0.9594  
 Epoch 75912/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy:  
 0.9600  
 Epoch 75913/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
 0.9597  
 Epoch 75914/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
 0.9594  
 Epoch 75915/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
 0.9592  
 Epoch 75916/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0300 - accuracy:  
 0.9600  
 Epoch 75917/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
 0.9590  
 Epoch 75918/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
 0.9591  
 Epoch 75919/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
 0.9595  
 Epoch 75920/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0291 - accuracy:  
 0.9592  
 Epoch 75921/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
 0.9592  
 Epoch 75922/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy:  
 0.9592  
 Epoch 75923/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
 0.9599  
 Epoch 75924/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0291 - accuracy:  
 0.9597  
 Epoch 75925/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
 0.9605  
 Epoch 75926/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0288 - accuracy:  
 0.9607  
 Epoch 75927/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0288 - accuracy:

```

0.9592
Epoch 75928/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:
0.9601
Epoch 75929/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:
0.9590
Epoch 75930/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:
0.9598
Epoch 75931/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:
0.9592
Epoch 75932/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:
0.9601
Epoch 75933/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:
0.9588
Epoch 75934/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:
0.9592
Epoch 75935/100000
2/2 [=====] - 0s 117ms/step - loss: 0.0287 - accuracy:
0.9599
Epoch 75936/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:
0.9592
Epoch 75937/100000
2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy:
0.9600
Epoch 75938/100000
2/2 [=====] - 0s 120ms/step - loss: 0.0290 - accuracy:
0.9601
Epoch 75939/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:
0.9597
Epoch 75940/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:
0.9599
Epoch 75941/100000
2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy:
0.9601
Epoch 75942/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy:
0.9592
Epoch 75943/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:

```

0.9597  
Epoch 75944/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy: 0.9595  
Epoch 75945/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy: 0.9596  
Epoch 75946/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0295 - accuracy: 0.9594  
Epoch 75947/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy: 0.9595  
Epoch 75948/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy: 0.9596  
Epoch 75949/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy: 0.9594  
Epoch 75950/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy: 0.9592  
Epoch 75951/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0294 - accuracy: 0.9608  
Epoch 75952/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0288 - accuracy: 0.9598  
Epoch 75953/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy: 0.9590  
Epoch 75954/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy: 0.9604  
Epoch 75955/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0291 - accuracy: 0.9607  
Epoch 75956/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy: 0.9584  
Epoch 75957/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy: 0.9593  
Epoch 75958/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0290 - accuracy: 0.9589  
Epoch 75959/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:

```

0.9599
Epoch 75960/100000
2/2 [=====] - 0s 117ms/step - loss: 0.0287 - accuracy:
0.9600
Epoch 75961/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:
0.9593
Epoch 75962/100000
2/2 [=====] - 0s 117ms/step - loss: 0.0282 - accuracy:
0.9589
Epoch 75963/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:
0.9600
Epoch 75964/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:
0.9604
Epoch 75965/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:
0.9592
Epoch 75966/100000
2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy:
0.9597
Epoch 75967/100000
2/2 [=====] - 0s 119ms/step - loss: 0.0282 - accuracy:
0.9595
Epoch 75968/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:
0.9584
Epoch 75969/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:
0.9601
Epoch 75970/100000
2/2 [=====] - 0s 118ms/step - loss: 0.0285 - accuracy:
0.9598
Epoch 75971/100000
2/2 [=====] - 0s 118ms/step - loss: 0.0286 - accuracy:
0.9597
Epoch 75972/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:
0.9592
Epoch 75973/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:
0.9590
Epoch 75974/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:
0.9601
Epoch 75975/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:

```



0.9595  
Epoch 75976/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy: 0.9597  
Epoch 75977/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9592  
Epoch 75978/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy: 0.9608  
Epoch 75979/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0292 - accuracy: 0.9606  
Epoch 75980/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy: 0.9587  
Epoch 75981/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0285 - accuracy: 0.9600  
Epoch 75982/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0290 - accuracy: 0.9594  
Epoch 75983/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0292 - accuracy: 0.9604  
Epoch 75984/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0289 - accuracy: 0.9597  
Epoch 75985/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy: 0.9584  
Epoch 75986/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy: 0.9601  
Epoch 75987/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy: 0.9599  
Epoch 75988/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy: 0.9585  
Epoch 75989/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0292 - accuracy: 0.9606  
Epoch 75990/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9604  
Epoch 75991/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:

0.9594  
 Epoch 75992/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy:  
 0.9601  
 Epoch 75993/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
 0.9594  
 Epoch 75994/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0284 - accuracy:  
 0.9594  
 Epoch 75995/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
 0.9604  
 Epoch 75996/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
 0.9601  
 Epoch 75997/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
 0.9598  
 Epoch 75998/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
 0.9592  
 Epoch 75999/100000  
 2/2 [=====] - 0s 120ms/step - loss: 0.0292 - accuracy:  
 0.9602  
 Epoch 76000/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
 0.9604  
 Epoch 76001/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
 0.9593  
 Epoch 76002/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0284 - accuracy:  
 0.9589  
 Epoch 76003/100000  
 2/2 [=====] - 0s 120ms/step - loss: 0.0291 - accuracy:  
 0.9603  
 Epoch 76004/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy:  
 0.9592  
 Epoch 76005/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
 0.9596  
 Epoch 76006/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
 0.9600  
 Epoch 76007/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0293 - accuracy:

0.9606  
Epoch 76008/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy: 0.9595  
Epoch 76009/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9592  
Epoch 76010/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy: 0.9605  
Epoch 76011/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy: 0.9595  
Epoch 76012/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy: 0.9597  
Epoch 76013/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy: 0.9598  
Epoch 76014/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy: 0.9592  
Epoch 76015/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy: 0.9591  
Epoch 76016/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy: 0.9608  
Epoch 76017/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0291 - accuracy: 0.9597  
Epoch 76018/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy: 0.9602  
Epoch 76019/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy: 0.9602  
Epoch 76020/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy: 0.9603  
Epoch 76021/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy: 0.9594  
Epoch 76022/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy: 0.9607  
Epoch 76023/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:

0.9599  
Epoch 76024/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy: 0.9601  
Epoch 76025/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0293 - accuracy: 0.9593  
Epoch 76026/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy: 0.9584  
Epoch 76027/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0282 - accuracy: 0.9590  
Epoch 76028/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy: 0.9602  
Epoch 76029/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy: 0.9590  
Epoch 76030/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy: 0.9592  
Epoch 76031/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy: 0.9598  
Epoch 76032/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy: 0.9593  
Epoch 76033/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0294 - accuracy: 0.9596  
Epoch 76034/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy: 0.9612  
Epoch 76035/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy: 0.9602  
Epoch 76036/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0298 - accuracy: 0.9597  
Epoch 76037/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy: 0.9604  
Epoch 76038/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9601  
Epoch 76039/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:

0.9596  
 Epoch 76040/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy:  
 0.9593  
 Epoch 76041/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
 0.9596  
 Epoch 76042/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
 0.9591  
 Epoch 76043/100000  
 2/2 [=====] - 0s 120ms/step - loss: 0.0286 - accuracy:  
 0.9598  
 Epoch 76044/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
 0.9595  
 Epoch 76045/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0284 - accuracy:  
 0.9598  
 Epoch 76046/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0289 - accuracy:  
 0.9610  
 Epoch 76047/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
 0.9592  
 Epoch 76048/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
 0.9595  
 Epoch 76049/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
 0.9596  
 Epoch 76050/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
 0.9592  
 Epoch 76051/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
 0.9586  
 Epoch 76052/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0283 - accuracy:  
 0.9594  
 Epoch 76053/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy:  
 0.9601  
 Epoch 76054/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy:  
 0.9603  
 Epoch 76055/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:

0.9595  
Epoch 76056/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy: 0.9596  
Epoch 76057/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy: 0.9604  
Epoch 76058/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy: 0.9598  
Epoch 76059/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy: 0.9601  
Epoch 76060/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9599  
Epoch 76061/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy: 0.9594  
Epoch 76062/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0293 - accuracy: 0.9597  
Epoch 76063/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy: 0.9592  
Epoch 76064/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9600  
Epoch 76065/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9593  
Epoch 76066/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9589  
Epoch 76067/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy: 0.9594  
Epoch 76068/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0292 - accuracy: 0.9601  
Epoch 76069/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy: 0.9598  
Epoch 76070/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy: 0.9604  
Epoch 76071/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:

0.9595  
Epoch 76072/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:  
0.9601  
Epoch 76073/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0293 - accuracy:  
0.9587  
Epoch 76074/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy:  
0.9601  
Epoch 76075/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9597  
Epoch 76076/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy:  
0.9596  
Epoch 76077/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy:  
0.9600  
Epoch 76078/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0284 - accuracy:  
0.9599  
Epoch 76079/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0289 - accuracy:  
0.9599  
Epoch 76080/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
0.9588  
Epoch 76081/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
0.9606  
Epoch 76082/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0282 - accuracy:  
0.9591  
Epoch 76083/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
0.9597  
Epoch 76084/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0285 - accuracy:  
0.9598  
Epoch 76085/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
0.9594  
Epoch 76086/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
0.9595  
Epoch 76087/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0284 - accuracy:

0.9602  
Epoch 76088/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9609  
Epoch 76089/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
0.9587  
Epoch 76090/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy:  
0.9606  
Epoch 76091/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
0.9587  
Epoch 76092/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
0.9599  
Epoch 76093/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
0.9591  
Epoch 76094/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0290 - accuracy:  
0.9602  
Epoch 76095/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy:  
0.9598  
Epoch 76096/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0282 - accuracy:  
0.9599  
Epoch 76097/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:  
0.9596  
Epoch 76098/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy:  
0.9600  
Epoch 76099/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:  
0.9605  
Epoch 76100/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0290 - accuracy:  
0.9592  
Epoch 76101/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9585  
Epoch 76102/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
0.9589  
Epoch 76103/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:



0.9588  
Epoch 76104/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9595  
Epoch 76105/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy: 0.9595  
Epoch 76106/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy: 0.9601  
Epoch 76107/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9585  
Epoch 76108/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy: 0.9596  
Epoch 76109/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy: 0.9596  
Epoch 76110/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0298 - accuracy: 0.9601  
Epoch 76111/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy: 0.9587  
Epoch 76112/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0295 - accuracy: 0.9598  
Epoch 76113/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy: 0.9606  
Epoch 76114/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy: 0.9599  
Epoch 76115/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0289 - accuracy: 0.9583  
Epoch 76116/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0291 - accuracy: 0.9591  
Epoch 76117/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy: 0.9601  
Epoch 76118/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy: 0.9604  
Epoch 76119/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:

0.9590  
Epoch 76120/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9605  
Epoch 76121/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy: 0.9600  
Epoch 76122/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9594  
Epoch 76123/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy: 0.9591  
Epoch 76124/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy: 0.9600  
Epoch 76125/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy: 0.9602  
Epoch 76126/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy: 0.9584  
Epoch 76127/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy: 0.9605  
Epoch 76128/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0289 - accuracy: 0.9594  
Epoch 76129/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0289 - accuracy: 0.9601  
Epoch 76130/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9594  
Epoch 76131/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0281 - accuracy: 0.9597  
Epoch 76132/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0292 - accuracy: 0.9592  
Epoch 76133/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy: 0.9596  
Epoch 76134/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0285 - accuracy: 0.9597  
Epoch 76135/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:

0.9596  
 Epoch 76136/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
 0.9605  
 Epoch 76137/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy:  
 0.9607  
 Epoch 76138/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
 0.9598  
 Epoch 76139/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy:  
 0.9599  
 Epoch 76140/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy:  
 0.9600  
 Epoch 76141/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
 0.9597  
 Epoch 76142/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
 0.9593  
 Epoch 76143/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
 0.9592  
 Epoch 76144/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0290 - accuracy:  
 0.9593  
 Epoch 76145/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:  
 0.9602  
 Epoch 76146/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
 0.9589  
 Epoch 76147/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:  
 0.9600  
 Epoch 76148/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy:  
 0.9593  
 Epoch 76149/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
 0.9597  
 Epoch 76150/100000  
 2/2 [=====] - 0s 113ms/step - loss: 0.0286 - accuracy:  
 0.9595  
 Epoch 76151/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0283 - accuracy:

0.9586  
Epoch 76152/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9590  
Epoch 76153/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0283 - accuracy:  
0.9592  
Epoch 76154/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9600  
Epoch 76155/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0290 - accuracy:  
0.9597  
Epoch 76156/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0286 - accuracy:  
0.9590  
Epoch 76157/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9597  
Epoch 76158/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9603  
Epoch 76159/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
0.9593  
Epoch 76160/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:  
0.9599  
Epoch 76161/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy:  
0.9603  
Epoch 76162/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0288 - accuracy:  
0.9596  
Epoch 76163/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
0.9593  
Epoch 76164/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0291 - accuracy:  
0.9600  
Epoch 76165/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0287 - accuracy:  
0.9594  
Epoch 76166/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9594  
Epoch 76167/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0290 - accuracy:

0.9588  
Epoch 76908/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0291 - accuracy: 0.9599  
Epoch 76909/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0287 - accuracy: 0.9598  
Epoch 76910/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0290 - accuracy: 0.9600  
Epoch 76911/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9596  
Epoch 76912/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy: 0.9598  
Epoch 76913/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0290 - accuracy: 0.9595  
Epoch 76914/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy: 0.9600  
Epoch 76915/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9592  
Epoch 76916/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0290 - accuracy: 0.9585  
Epoch 76917/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy: 0.9600  
Epoch 76918/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy: 0.9602  
Epoch 76919/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy: 0.9595  
Epoch 76920/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0290 - accuracy: 0.9601  
Epoch 76921/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy: 0.9601  
Epoch 76922/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0291 - accuracy: 0.9589  
Epoch 76923/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0293 - accuracy:

```

0.9600
Epoch 76924/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:
0.9606
Epoch 76925/100000
2/2 [=====] - 0s 117ms/step - loss: 0.0295 - accuracy:
0.9592
Epoch 76926/100000
2/2 [=====] - 0s 119ms/step - loss: 0.0314 - accuracy:
0.9597
Epoch 76927/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:
0.9600
Epoch 76928/100000
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy:
0.9604
Epoch 76929/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:
0.9601
Epoch 76930/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:
0.9600
Epoch 76931/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:
0.9599
Epoch 76932/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:
0.9598
Epoch 76933/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:
0.9599
Epoch 76934/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:
0.9598
Epoch 76935/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:
0.9599
Epoch 76936/100000
2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy:
0.9599
Epoch 76937/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:
0.9606
Epoch 76938/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy:
0.9603
Epoch 76939/100000
2/2 [=====] - 0s 113ms/step - loss: 0.0295 - accuracy:

```

0.9603  
Epoch 76940/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0292 - accuracy: 0.9602  
Epoch 76941/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy: 0.9600  
Epoch 76942/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy: 0.9592  
Epoch 76943/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy: 0.9586  
Epoch 76944/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy: 0.9599  
Epoch 76945/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0292 - accuracy: 0.9590  
Epoch 76946/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy: 0.9603  
Epoch 76947/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0291 - accuracy: 0.9597  
Epoch 76948/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9603  
Epoch 76949/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy: 0.9599  
Epoch 76950/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0291 - accuracy: 0.9595  
Epoch 76951/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9591  
Epoch 76952/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy: 0.9585  
Epoch 76953/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0290 - accuracy: 0.9597  
Epoch 76954/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy: 0.9599  
Epoch 76955/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:

0.9595  
 Epoch 76956/100000  
 2/2 [=====] - 0s 113ms/step - loss: 0.0291 - accuracy:  
 0.9596  
 Epoch 76957/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
 0.9593  
 Epoch 76958/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
 0.9589  
 Epoch 76959/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy:  
 0.9593  
 Epoch 76960/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0286 - accuracy:  
 0.9595  
 Epoch 76961/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
 0.9590  
 Epoch 76962/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
 0.9599  
 Epoch 76963/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0291 - accuracy:  
 0.9601  
 Epoch 76964/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
 0.9603  
 Epoch 76965/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
 0.9608  
 Epoch 76966/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
 0.9600  
 Epoch 76967/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
 0.9591  
 Epoch 76968/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
 0.9614  
 Epoch 76969/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0286 - accuracy:  
 0.9601  
 Epoch 76970/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
 0.9596  
 Epoch 76971/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:



0.9598  
Epoch 76972/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0292 - accuracy: 0.9609  
Epoch 76973/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy: 0.9603  
Epoch 76974/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy: 0.9592  
Epoch 76975/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0284 - accuracy: 0.9590  
Epoch 76976/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy: 0.9606  
Epoch 76977/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy: 0.9601  
Epoch 76978/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy: 0.9598  
Epoch 76979/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0291 - accuracy: 0.9601  
Epoch 76980/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0290 - accuracy: 0.9597  
Epoch 76981/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9605  
Epoch 76982/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy: 0.9601  
Epoch 76983/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0286 - accuracy: 0.9604  
Epoch 76984/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0284 - accuracy: 0.9592  
Epoch 76985/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy: 0.9594  
Epoch 76986/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9609  
Epoch 76987/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:

0.9604  
Epoch 76988/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy: 0.9598  
Epoch 76989/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy: 0.9604  
Epoch 76990/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0282 - accuracy: 0.9590  
Epoch 76991/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy: 0.9600  
Epoch 76992/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy: 0.9590  
Epoch 76993/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy: 0.9597  
Epoch 76994/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9606  
Epoch 76995/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy: 0.9593  
Epoch 76996/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy: 0.9600  
Epoch 76997/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy: 0.9600  
Epoch 76998/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9601  
Epoch 76999/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy: 0.9594  
Epoch 77000/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy: 0.9597  
Epoch 77001/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy: 0.9596  
Epoch 77002/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0284 - accuracy: 0.9588  
Epoch 77003/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0292 - accuracy:

0.9597  
Epoch 77004/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0292 - accuracy: 0.9604  
Epoch 77005/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy: 0.9594  
Epoch 77006/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy: 0.9603  
Epoch 77007/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy: 0.9585  
Epoch 77008/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9595  
Epoch 77009/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0307 - accuracy: 0.9602  
Epoch 77010/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy: 0.9590  
Epoch 77011/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy: 0.9593  
Epoch 77012/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0293 - accuracy: 0.9595  
Epoch 77013/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9591  
Epoch 77014/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy: 0.9591  
Epoch 77015/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9605  
Epoch 77016/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy: 0.9597  
Epoch 77017/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy: 0.9595  
Epoch 77018/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy: 0.9597  
Epoch 77019/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0286 - accuracy:

0.9590  
Epoch 77020/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy:  
0.9589  
Epoch 77021/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
0.9593  
Epoch 77022/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9598  
Epoch 77023/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
0.9607  
Epoch 77024/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy:  
0.9603  
Epoch 77025/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
0.9601  
Epoch 77026/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9599  
Epoch 77027/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9592  
Epoch 77028/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy:  
0.9589  
Epoch 77029/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0286 - accuracy:  
0.9598  
Epoch 77030/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
0.9596  
Epoch 77031/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9594  
Epoch 77032/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9598  
Epoch 77033/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:  
0.9606  
Epoch 77034/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9583  
Epoch 77035/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy:

0.9592  
Epoch 77036/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy: 0.9589  
Epoch 77037/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy: 0.9595  
Epoch 77038/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy: 0.9604  
Epoch 77039/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0295 - accuracy: 0.9592  
Epoch 77040/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy: 0.9596  
Epoch 77041/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9607  
Epoch 77042/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0289 - accuracy: 0.9597  
Epoch 77043/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0286 - accuracy: 0.9605  
Epoch 77044/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy: 0.9588  
Epoch 77045/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0288 - accuracy: 0.9594  
Epoch 77046/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9609  
Epoch 77047/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0292 - accuracy: 0.9598  
Epoch 77048/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy: 0.9589  
Epoch 77049/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0289 - accuracy: 0.9596  
Epoch 77050/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0289 - accuracy: 0.9599  
Epoch 77051/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0290 - accuracy:

0.9597  
Epoch 77052/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy: 0.9593  
Epoch 77053/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy: 0.9600  
Epoch 77054/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy: 0.9586  
Epoch 77055/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9596  
Epoch 77056/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9595  
Epoch 77057/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0284 - accuracy: 0.9593  
Epoch 77058/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy: 0.9603  
Epoch 77059/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy: 0.9602  
Epoch 77060/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy: 0.9590  
Epoch 77061/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy: 0.9600  
Epoch 77062/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0287 - accuracy: 0.9599  
Epoch 77063/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy: 0.9612  
Epoch 77064/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0286 - accuracy: 0.9596  
Epoch 77065/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0288 - accuracy: 0.9600  
Epoch 77066/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy: 0.9597  
Epoch 77067/100000  
2/2 [=====] - 0s 126ms/step - loss: 0.0289 - accuracy:

```

0.9591
Epoch 77068/100000
2/2 [=====] - 0s 128ms/step - loss: 0.0290 - accuracy:
0.9601
Epoch 77069/100000
2/2 [=====] - 0s 130ms/step - loss: 0.0290 - accuracy:
0.9595
Epoch 77070/100000
2/2 [=====] - 0s 124ms/step - loss: 0.0281 - accuracy:
0.9597
Epoch 77071/100000
2/2 [=====] - 0s 124ms/step - loss: 0.0285 - accuracy:
0.9606
Epoch 77072/100000
2/2 [=====] - 0s 130ms/step - loss: 0.0285 - accuracy:
0.9598
Epoch 77073/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:
0.9601
Epoch 77074/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:
0.9597
Epoch 77075/100000
2/2 [=====] - 0s 117ms/step - loss: 0.0292 - accuracy:
0.9603
Epoch 77076/100000
2/2 [=====] - 0s 118ms/step - loss: 0.0289 - accuracy:
0.9590
Epoch 77077/100000
2/2 [=====] - 0s 117ms/step - loss: 0.0289 - accuracy:
0.9600
Epoch 77078/100000
2/2 [=====] - 0s 113ms/step - loss: 0.0291 - accuracy:
0.9588
Epoch 77079/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy:
0.9588
Epoch 77080/100000
2/2 [=====] - 0s 119ms/step - loss: 0.0285 - accuracy:
0.9600
Epoch 77081/100000
2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy:
0.9593
Epoch 77082/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy:
0.9596
Epoch 77083/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:

```

0.9588  
Epoch 77084/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy: 0.9587  
Epoch 77085/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy: 0.9599  
Epoch 77086/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy: 0.9598  
Epoch 77087/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy: 0.9597  
Epoch 77088/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0289 - accuracy: 0.9597  
Epoch 77089/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0289 - accuracy: 0.9599  
Epoch 77090/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy: 0.9596  
Epoch 77091/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy: 0.9603  
Epoch 77092/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0286 - accuracy: 0.9594  
Epoch 77093/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy: 0.9591  
Epoch 77094/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy: 0.9590  
Epoch 77095/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0286 - accuracy: 0.9598  
Epoch 77096/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy: 0.9588  
Epoch 77097/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy: 0.9595  
Epoch 77098/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy: 0.9594  
Epoch 77099/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:



0.9581  
 Epoch 77100/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:  
 0.9597  
 Epoch 77101/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:  
 0.9594  
 Epoch 77102/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
 0.9611  
 Epoch 77103/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0282 - accuracy:  
 0.9589  
 Epoch 77104/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy:  
 0.9598  
 Epoch 77105/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
 0.9604  
 Epoch 77106/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
 0.9594  
 Epoch 77107/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
 0.9594  
 Epoch 77108/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0285 - accuracy:  
 0.9598  
 Epoch 77109/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0284 - accuracy:  
 0.9598  
 Epoch 77110/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0283 - accuracy:  
 0.9589  
 Epoch 77111/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
 0.9598  
 Epoch 77112/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0278 - accuracy:  
 0.9591  
 Epoch 77113/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
 0.9599  
 Epoch 77114/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
 0.9606  
 Epoch 77115/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:

0.9592  
 Epoch 77116/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0284 - accuracy:  
 0.9597  
 Epoch 77117/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy:  
 0.9594  
 Epoch 77118/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
 0.9593  
 Epoch 77119/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0283 - accuracy:  
 0.9594  
 Epoch 77120/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:  
 0.9603  
 Epoch 77121/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
 0.9590  
 Epoch 77122/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
 0.9596  
 Epoch 77123/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
 0.9592  
 Epoch 77124/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0295 - accuracy:  
 0.9600  
 Epoch 77125/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
 0.9595  
 2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy:  
 0.9601  
 Epoch 77652/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0286 - accuracy:  
 0.9585  
 Epoch 77653/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0281 - accuracy:  
 0.9583  
 Epoch 77654/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
 0.9599  
 Epoch 77655/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy:  
 0.9600  
 Epoch 77656/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0284 - accuracy:  
 0.9593

Epoch 77657/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9597  
Epoch 77658/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy: 0.9606  
Epoch 77659/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy: 0.9598  
Epoch 77660/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0282 - accuracy: 0.9595  
Epoch 77661/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9591  
Epoch 77662/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9590  
Epoch 77663/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy: 0.9605  
Epoch 77664/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy: 0.9586  
Epoch 77665/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy: 0.9600  
Epoch 77666/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0296 - accuracy: 0.9596  
Epoch 77667/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy: 0.9586  
Epoch 77668/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy: 0.9600  
Epoch 77669/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0293 - accuracy: 0.9597  
Epoch 77670/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy: 0.9592  
Epoch 77671/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy: 0.9596  
Epoch 77672/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy: 0.9596

Epoch 77673/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0286 - accuracy: 0.9587  
Epoch 77674/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0287 - accuracy: 0.9607  
Epoch 77675/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy: 0.9602  
Epoch 77676/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy: 0.9588  
Epoch 77677/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy: 0.9607  
Epoch 77678/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy: 0.9606  
Epoch 77679/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9597  
Epoch 77680/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0287 - accuracy: 0.9597  
Epoch 77681/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy: 0.9600  
Epoch 77682/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy: 0.9605  
Epoch 77683/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy: 0.9588  
Epoch 77684/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy: 0.9599  
Epoch 77685/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy: 0.9598  
Epoch 77686/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy: 0.9601  
Epoch 77687/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0291 - accuracy: 0.9593  
Epoch 77688/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy: 0.9597

Epoch 77689/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9596  
Epoch 77690/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9602  
Epoch 77691/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
0.9601  
Epoch 77692/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0288 - accuracy:  
0.9589  
Epoch 77693/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
0.9599  
Epoch 77694/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0292 - accuracy:  
0.9591  
Epoch 77695/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9586  
Epoch 77696/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9599  
Epoch 77697/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9603  
Epoch 77698/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
0.9589  
Epoch 77699/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9592  
Epoch 77700/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0292 - accuracy:  
0.9601  
Epoch 77701/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
0.9593  
Epoch 77702/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
0.9593  
Epoch 77703/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9603  
Epoch 77704/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9604

Epoch 77705/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy: 0.9593  
Epoch 77706/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0282 - accuracy: 0.9591  
Epoch 77707/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy: 0.9599  
Epoch 77708/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy: 0.9598  
Epoch 77709/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0287 - accuracy: 0.9597  
Epoch 77710/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0283 - accuracy: 0.9595  
Epoch 77711/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy: 0.9591  
Epoch 77712/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy: 0.9594  
Epoch 77713/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0290 - accuracy: 0.9607  
Epoch 77714/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy: 0.9592  
Epoch 77715/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy: 0.9599  
Epoch 77716/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy: 0.9602  
Epoch 77717/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy: 0.9595  
Epoch 77718/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9603  
Epoch 77719/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9594  
Epoch 77720/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0295 - accuracy: 0.9594

Epoch 77721/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0292 - accuracy: 0.9599  
Epoch 77722/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy: 0.9600  
Epoch 77723/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0291 - accuracy: 0.9599  
Epoch 77724/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0291 - accuracy: 0.9599  
Epoch 77725/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0291 - accuracy: 0.9598  
Epoch 77726/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0287 - accuracy: 0.9599  
Epoch 77727/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0288 - accuracy: 0.9595  
Epoch 77728/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0287 - accuracy: 0.9594  
Epoch 77729/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0293 - accuracy: 0.9599  
Epoch 77730/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0296 - accuracy: 0.9604  
Epoch 77731/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0288 - accuracy: 0.9596  
Epoch 77732/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy: 0.9599  
Epoch 77733/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy: 0.9599  
Epoch 77734/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy: 0.9600  
Epoch 77735/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9590  
Epoch 77736/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy: 0.9590

Epoch 77737/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0291 - accuracy: 0.9592  
Epoch 77738/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy: 0.9597  
Epoch 77739/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy: 0.9593  
Epoch 77740/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0291 - accuracy: 0.9589  
Epoch 77741/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy: 0.9598  
Epoch 77742/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy: 0.9601  
Epoch 77743/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy: 0.9596  
Epoch 77744/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy: 0.9605  
Epoch 77745/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy: 0.9596  
Epoch 77746/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0286 - accuracy: 0.9597  
Epoch 77747/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0289 - accuracy: 0.9603  
Epoch 77748/100000  
2/2 [=====] - 0s 131ms/step - loss: 0.0293 - accuracy: 0.9594  
Epoch 77749/100000  
2/2 [=====] - 0s 135ms/step - loss: 0.0293 - accuracy: 0.9607  
Epoch 77750/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0288 - accuracy: 0.9592  
Epoch 77751/100000  
2/2 [=====] - 0s 131ms/step - loss: 0.0286 - accuracy: 0.9585  
Epoch 77752/100000  
2/2 [=====] - 0s 137ms/step - loss: 0.0294 - accuracy: 0.9591



Epoch 77753/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0289 - accuracy: 0.9601  
Epoch 77754/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0291 - accuracy: 0.9592  
Epoch 77755/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0292 - accuracy: 0.9600  
Epoch 77756/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy: 0.9598  
Epoch 77757/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy: 0.9604  
Epoch 77758/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy: 0.9605  
Epoch 77759/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy: 0.9597  
Epoch 77760/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0289 - accuracy: 0.9591  
Epoch 77761/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy: 0.9596  
Epoch 77762/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy: 0.9590  
Epoch 77763/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0285 - accuracy: 0.9589  
Epoch 77764/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy: 0.9593  
Epoch 77765/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy: 0.9601  
Epoch 77766/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy: 0.9600  
Epoch 77767/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9595  
Epoch 77768/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0291 - accuracy: 0.9590

Epoch 77769/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0282 - accuracy: 0.9581

Epoch 77770/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy: 0.9599

Epoch 77771/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy: 0.9594

Epoch 77772/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy: 0.9598

Epoch 77773/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy: 0.9590

Epoch 77774/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy: 0.9593

Epoch 77775/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9589

Epoch 77776/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy: 0.9602

Epoch 77777/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9594

Epoch 77778/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy: 0.9598

Epoch 77779/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy: 0.9592

Epoch 77780/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy: 0.9593

Epoch 77781/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0291 - accuracy: 0.9596

Epoch 77782/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy: 0.9582

Epoch 77783/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0293 - accuracy: 0.9587

Epoch 77784/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0290 - accuracy: 0.9604

Epoch 77785/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy: 0.9600  
Epoch 77786/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9595  
Epoch 77787/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy: 0.9591  
Epoch 77788/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy: 0.9600  
Epoch 77789/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy: 0.9601  
Epoch 77790/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0289 - accuracy: 0.9596  
Epoch 77791/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy: 0.9588  
Epoch 77792/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy: 0.9591  
Epoch 77793/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy: 0.9594  
Epoch 77794/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy: 0.9589  
Epoch 77795/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9594  
Epoch 77796/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0287 - accuracy: 0.9594  
Epoch 77797/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy: 0.9604  
Epoch 77798/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy: 0.9601  
Epoch 77799/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy: 0.9598  
Epoch 77800/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy: 0.9595

Epoch 77801/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0285 - accuracy: 0.9603  
Epoch 77802/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy: 0.9598  
Epoch 77803/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy: 0.9592  
Epoch 77804/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy: 0.9600  
Epoch 77805/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy: 0.9594  
Epoch 77806/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy: 0.9599  
Epoch 77807/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy: 0.9581  
Epoch 77808/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0283 - accuracy: 0.9587  
Epoch 77809/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy: 0.9593  
Epoch 77810/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9595  
Epoch 77811/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0285 - accuracy: 0.9586  
Epoch 77812/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9593  
Epoch 77813/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy: 0.9602  
Epoch 77814/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0293 - accuracy: 0.9593  
Epoch 77815/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy: 0.9587  
Epoch 77816/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9595

Epoch 77817/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy: 0.9589

Epoch 77818/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9590

Epoch 77819/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9600

Epoch 77820/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0291 - accuracy: 0.9589

Epoch 77821/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9598

Epoch 77822/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy: 0.9592

Epoch 77823/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy: 0.9600

Epoch 77824/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy: 0.9588

Epoch 77825/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy: 0.9597

Epoch 77826/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9590

Epoch 77827/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy: 0.9598

Epoch 77828/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0290 - accuracy: 0.9593

Epoch 77829/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy: 0.9597

Epoch 77830/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy: 0.9593

Epoch 77831/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy: 0.9593

Epoch 77832/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy: 0.9597

Epoch 77833/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy: 0.9597  
Epoch 77834/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0293 - accuracy: 0.9600  
Epoch 77835/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy: 0.9598  
Epoch 77836/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy: 0.9603  
Epoch 77837/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy: 0.9600  
Epoch 77838/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9601  
Epoch 77839/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy: 0.9594  
Epoch 77840/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy: 0.9607  
Epoch 77841/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy: 0.9596  
Epoch 77842/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9599  
Epoch 77843/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0294 - accuracy: 0.9592  
Epoch 77844/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0291 - accuracy: 0.9600  
Epoch 77845/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0289 - accuracy: 0.9582  
Epoch 77846/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0297 - accuracy: 0.9607  
Epoch 77847/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy: 0.9582  
Epoch 77848/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy: 0.9599

Epoch 77849/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy: 0.9592

Epoch 77850/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0291 - accuracy: 0.9594

Epoch 77851/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0291 - accuracy: 0.9589

Epoch 77852/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy: 0.9592

Epoch 77853/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy: 0.9594

Epoch 77854/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy: 0.9601

Epoch 77855/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy: 0.9591

Epoch 77856/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy: 0.9600

Epoch 77857/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy: 0.9603

Epoch 77858/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy: 0.9587

Epoch 77859/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy: 0.9598

Epoch 77860/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy: 0.9596

Epoch 77861/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy: 0.9585

Epoch 77862/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0290 - accuracy: 0.9597

Epoch 77863/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0289 - accuracy: 0.9593

Epoch 77864/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9588

Epoch 77865/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0295 - accuracy: 0.9604  
Epoch 78402/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0297 - accuracy: 0.9610  
Epoch 78403/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy: 0.9594  
Epoch 78404/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy: 0.9603  
Epoch 78405/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0286 - accuracy: 0.9604  
Epoch 78406/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0291 - accuracy: 0.9598  
Epoch 78407/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy: 0.9597  
Epoch 78408/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy: 0.9601  
Epoch 78409/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0285 - accuracy: 0.9595  
Epoch 78410/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0292 - accuracy: 0.9592  
Epoch 78411/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy: 0.9593  
Epoch 78412/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy: 0.9601  
Epoch 78413/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy: 0.9594  
Epoch 78414/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy: 0.9601  
Epoch 78415/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0291 - accuracy: 0.9600  
Epoch 78416/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0284 - accuracy: 0.9593



Epoch 78417/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy: 0.9591

Epoch 78418/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0288 - accuracy: 0.9601

Epoch 78419/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0285 - accuracy: 0.9598

Epoch 78420/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0283 - accuracy: 0.9593

Epoch 78421/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0282 - accuracy: 0.9591

Epoch 78422/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0285 - accuracy: 0.9597

Epoch 78423/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0281 - accuracy: 0.9593

Epoch 78424/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0289 - accuracy: 0.9593

Epoch 78425/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0285 - accuracy: 0.9592

Epoch 78426/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9599

Epoch 78427/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy: 0.9599

Epoch 78428/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0293 - accuracy: 0.9598

Epoch 78429/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy: 0.9600

Epoch 78430/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy: 0.9595

Epoch 78431/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9596

Epoch 78432/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy: 0.9598

Epoch 78433/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0294 - accuracy: 0.9606  
Epoch 78434/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy: 0.9589  
Epoch 78435/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0289 - accuracy: 0.9592  
Epoch 78436/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0290 - accuracy: 0.9599  
Epoch 78437/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy: 0.9595  
Epoch 78438/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy: 0.9600  
Epoch 78439/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy: 0.9597  
Epoch 78440/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0288 - accuracy: 0.9598  
Epoch 78441/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0289 - accuracy: 0.9605  
Epoch 78442/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy: 0.9593  
Epoch 78443/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy: 0.9590  
Epoch 78444/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9599  
Epoch 78445/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9589  
Epoch 78446/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy: 0.9597  
Epoch 78447/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0293 - accuracy: 0.9594  
Epoch 78448/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0286 - accuracy: 0.9597

Epoch 78449/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9602  
Epoch 78450/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy:  
0.9593  
Epoch 78451/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy:  
0.9597  
Epoch 78452/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
0.9589  
Epoch 78453/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0282 - accuracy:  
0.9588  
Epoch 78454/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
0.9585  
Epoch 78455/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
0.9590  
Epoch 78456/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy:  
0.9588  
Epoch 78457/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9597  
Epoch 78458/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy:  
0.9598  
Epoch 78459/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9593  
Epoch 78460/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0293 - accuracy:  
0.9604  
Epoch 78461/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9599  
Epoch 78462/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0303 - accuracy:  
0.9586  
Epoch 78463/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy:  
0.9598  
Epoch 78464/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0288 - accuracy:  
0.9595

Epoch 78465/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy: 0.9589  
Epoch 78466/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy: 0.9599  
Epoch 78467/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9601  
Epoch 78468/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0283 - accuracy: 0.9592  
Epoch 78469/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy: 0.9598  
Epoch 78470/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy: 0.9597  
Epoch 78471/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9608  
Epoch 78472/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy: 0.9596  
Epoch 78473/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy: 0.9600  
Epoch 78474/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy: 0.9592  
Epoch 78475/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy: 0.9596  
Epoch 78476/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0279 - accuracy: 0.9590  
Epoch 78477/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9593  
Epoch 78478/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0282 - accuracy: 0.9599  
Epoch 78479/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy: 0.9589  
Epoch 78480/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy: 0.9591

Epoch 78481/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9608  
Epoch 78482/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy: 0.9597  
Epoch 78483/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy: 0.9598  
Epoch 78484/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy: 0.9592  
Epoch 78485/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy: 0.9602  
Epoch 78486/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy: 0.9610  
Epoch 78487/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy: 0.9589  
Epoch 78488/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0289 - accuracy: 0.9598  
Epoch 78489/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy: 0.9596  
Epoch 78490/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy: 0.9592  
Epoch 78491/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0290 - accuracy: 0.9591  
Epoch 78492/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy: 0.9592  
Epoch 78493/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy: 0.9601  
Epoch 78494/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy: 0.9596  
Epoch 78495/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy: 0.9603  
Epoch 78496/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0293 - accuracy: 0.9600

Epoch 78497/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy: 0.9589  
Epoch 78498/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy: 0.9604  
Epoch 78499/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy: 0.9596  
Epoch 78500/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9592  
Epoch 78501/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy: 0.9594  
Epoch 78502/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy: 0.9588  
Epoch 78503/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0282 - accuracy: 0.9599  
Epoch 78504/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9604  
Epoch 78505/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0283 - accuracy: 0.9588  
Epoch 78506/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy: 0.9593  
Epoch 78507/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy: 0.9600  
Epoch 78508/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0284 - accuracy: 0.9595  
Epoch 78509/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy: 0.9597  
Epoch 78510/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy: 0.9596  
Epoch 78511/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0287 - accuracy: 0.9591  
Epoch 78512/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0280 - accuracy: 0.9596

Epoch 78513/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0285 - accuracy: 0.9593

Epoch 78514/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0284 - accuracy: 0.9595

Epoch 78515/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0282 - accuracy: 0.9599

Epoch 78516/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0287 - accuracy: 0.9602

Epoch 78517/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy: 0.9589

Epoch 78518/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy: 0.9598

Epoch 78519/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy: 0.9603

Epoch 78520/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy: 0.9601

Epoch 78521/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0287 - accuracy: 0.9608

Epoch 78522/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy: 0.9608

Epoch 78523/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0286 - accuracy: 0.9600

Epoch 78524/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9605

Epoch 78525/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0283 - accuracy: 0.9598

Epoch 78526/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9588

Epoch 78527/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy: 0.9593

Epoch 78528/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy: 0.9597

Epoch 78529/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0291 - accuracy: 0.9589  
Epoch 78530/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy: 0.9594  
Epoch 78531/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy: 0.9602  
Epoch 78532/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy: 0.9586  
Epoch 78533/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy: 0.9596  
Epoch 78534/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy: 0.9596  
Epoch 78535/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0285 - accuracy: 0.9592  
Epoch 78536/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy: 0.9594  
Epoch 78537/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy: 0.9599  
Epoch 78538/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy: 0.9597  
Epoch 78539/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0290 - accuracy: 0.9599  
Epoch 78540/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0290 - accuracy: 0.9587  
Epoch 78541/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy: 0.9597  
Epoch 78542/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy: 0.9593  
Epoch 78543/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0290 - accuracy: 0.9595  
Epoch 78544/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy: 0.9584



Epoch 78545/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9585

Epoch 78546/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
0.9590

Epoch 78547/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
0.9600

Epoch 78548/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9594

Epoch 78549/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
0.9595

Epoch 78550/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0291 - accuracy:  
0.9599

Epoch 78551/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9593

Epoch 78552/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9597

Epoch 78553/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9600

Epoch 78554/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
0.9595

Epoch 78555/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9602

Epoch 78556/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
0.9597

Epoch 78557/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9592

Epoch 78558/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9592

Epoch 78559/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9608

Epoch 78560/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0293 - accuracy:  
0.9598

Epoch 78561/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0282 - accuracy: 0.9593  
Epoch 78562/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy: 0.9605  
Epoch 78563/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0293 - accuracy: 0.9606  
Epoch 78564/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0294 - accuracy: 0.9597  
Epoch 78565/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy: 0.9602  
Epoch 78566/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy: 0.9596  
Epoch 78567/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy: 0.9597  
Epoch 78568/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0285 - accuracy: 0.9594  
Epoch 78569/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0280 - accuracy: 0.9588  
Epoch 78570/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0283 - accuracy: 0.9598  
Epoch 78571/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy: 0.9590  
Epoch 78572/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0286 - accuracy: 0.9595  
Epoch 78573/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy: 0.9591  
Epoch 78574/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0283 - accuracy: 0.9601  
Epoch 78575/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0282 - accuracy: 0.9595  
Epoch 78576/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy: 0.9587

Epoch 78577/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0288 - accuracy:  
0.9596

Epoch 78578/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9598

Epoch 78579/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0282 - accuracy:  
0.9599

Epoch 78580/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
0.9594

Epoch 78581/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9593

Epoch 78582/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
0.9605

Epoch 78583/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
0.9601

Epoch 78584/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
0.9598

Epoch 78585/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:  
0.9602

Epoch 78586/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy:  
0.9602

Epoch 78587/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
0.9594

Epoch 78588/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
0.9600

Epoch 78589/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9593

Epoch 78590/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9600

Epoch 78591/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy:  
0.9589

Epoch 78592/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9596

Epoch 78593/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy: 0.9591  
Epoch 78594/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9599  
Epoch 78595/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy: 0.9604  
Epoch 78596/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy: 0.9597  
Epoch 78597/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy: 0.9601  
Epoch 78598/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy: 0.9591  
Epoch 78599/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy: 0.9599  
Epoch 78600/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy: 0.9606  
Epoch 78601/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy: 0.9605  
Epoch 78602/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy: 0.9604  
Epoch 78603/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy: 0.9585  
Epoch 78604/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy: 0.9597  
Epoch 78605/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy: 0.9594  
Epoch 78606/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy: 0.9594  
Epoch 78607/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0313 - accuracy: 0.9600  
Epoch 78608/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0300 - accuracy: 0.9591

Epoch 78609/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0302 - accuracy: 0.9594

Epoch 78610/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy: 0.9586

Epoch 78611/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy: 0.9600

Epoch 78612/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy: 0.9602

Epoch 78613/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy: 0.9604

Epoch 78614/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy: 0.9600

Epoch 78615/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy: 0.9592

Epoch 78616/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy: 0.9597

Epoch 78617/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy: 0.9591

Epoch 78618/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0290 - accuracy: 0.9598

Epoch 78619/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy: 0.9595  
2/2 [=====] - 0s 117ms/step - loss: 0.0285 - accuracy: 0.9598

Epoch 79141/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0284 - accuracy: 0.9595

Epoch 79142/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9596

Epoch 79143/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0284 - accuracy: 0.9594

Epoch 79144/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9604

Epoch 79145/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0293 - accuracy:  
0.9593  
Epoch 79146/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
0.9591  
Epoch 79147/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9600  
Epoch 79148/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9590  
Epoch 79149/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
0.9591  
Epoch 79150/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9602  
Epoch 79151/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9599  
Epoch 79152/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9601  
Epoch 79153/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0293 - accuracy:  
0.9590  
Epoch 79154/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy:  
0.9595  
Epoch 79155/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:  
0.9591  
Epoch 79156/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9603  
Epoch 79157/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy:  
0.9597  
Epoch 79158/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy:  
0.9597  
Epoch 79159/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy:  
0.9604  
Epoch 79160/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy:  
0.9594  
Epoch 79161/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0289 - accuracy:  
0.9596  
Epoch 79162/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
0.9593  
Epoch 79163/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
0.9593  
Epoch 79164/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9608  
Epoch 79165/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy:  
0.9588  
Epoch 79166/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0290 - accuracy:  
0.9593  
Epoch 79167/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9595  
Epoch 79168/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0314 - accuracy:  
0.9591  
Epoch 79169/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9594  
Epoch 79170/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
0.9600  
Epoch 79171/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9600  
Epoch 79172/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9604  
Epoch 79173/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9593  
Epoch 79174/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
0.9590  
Epoch 79175/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9602  
Epoch 79176/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9608  
Epoch 79177/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy: 0.9595  
Epoch 79178/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy: 0.9596  
Epoch 79179/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0292 - accuracy: 0.9595  
Epoch 79180/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0290 - accuracy: 0.9594  
Epoch 79181/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy: 0.9598  
Epoch 79182/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy: 0.9598  
Epoch 79183/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy: 0.9602  
Epoch 79184/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy: 0.9594  
Epoch 79185/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy: 0.9599  
Epoch 79186/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy: 0.9598  
Epoch 79187/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy: 0.9590  
Epoch 79188/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy: 0.9600  
Epoch 79189/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy: 0.9589  
Epoch 79190/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy: 0.9589  
Epoch 79191/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy: 0.9591  
Epoch 79192/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy: 0.9608  
Epoch 79193/100000



2/2 [=====] - 0s 116ms/step - loss: 0.0292 - accuracy: 0.9598  
Epoch 79194/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0288 - accuracy: 0.9596  
Epoch 79195/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0284 - accuracy: 0.9589  
Epoch 79196/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy: 0.9603  
Epoch 79197/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9606  
Epoch 79198/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy: 0.9600  
Epoch 79199/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy: 0.9596  
Epoch 79200/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0291 - accuracy: 0.9606  
Epoch 79201/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy: 0.9587  
Epoch 79202/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy: 0.9600  
Epoch 79203/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy: 0.9602  
Epoch 79204/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy: 0.9589  
Epoch 79205/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy: 0.9598  
Epoch 79206/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy: 0.9596  
Epoch 79207/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0290 - accuracy: 0.9593  
Epoch 79208/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0284 - accuracy: 0.9590  
Epoch 79209/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9588  
Epoch 79210/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9597  
Epoch 79211/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9592  
Epoch 79212/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy:  
0.9602  
Epoch 79213/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
0.9595  
Epoch 79214/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy:  
0.9599  
Epoch 79215/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9604  
Epoch 79216/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
0.9598  
Epoch 79217/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
0.9597  
Epoch 79218/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
0.9602  
Epoch 79219/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0290 - accuracy:  
0.9605  
Epoch 79220/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
0.9588  
Epoch 79221/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
0.9599  
Epoch 79222/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9607  
Epoch 79223/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
0.9596  
Epoch 79224/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
0.9578  
Epoch 79225/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy:  
0.9594  
Epoch 79226/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0289 - accuracy:  
0.9594  
Epoch 79227/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9595  
Epoch 79228/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0288 - accuracy:  
0.9593  
Epoch 79229/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
0.9591  
Epoch 79230/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0289 - accuracy:  
0.9601  
Epoch 79231/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
0.9596  
Epoch 79232/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy:  
0.9594  
Epoch 79233/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
0.9599  
Epoch 79234/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
0.9593  
Epoch 79235/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0282 - accuracy:  
0.9599  
Epoch 79236/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
0.9597  
Epoch 79237/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9589  
Epoch 79238/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9602  
Epoch 79239/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9598  
Epoch 79240/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:  
0.9599  
Epoch 79241/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
0.9602  
Epoch 79242/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy:  
0.9597  
Epoch 79243/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0284 - accuracy:  
0.9588  
Epoch 79244/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
0.9598  
Epoch 79245/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9602  
Epoch 79246/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:  
0.9589  
Epoch 79247/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy:  
0.9599  
Epoch 79248/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9595  
Epoch 79249/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
0.9603  
Epoch 79250/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0288 - accuracy:  
0.9594  
Epoch 79251/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0292 - accuracy:  
0.9609  
Epoch 79252/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9595  
Epoch 79253/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0289 - accuracy:  
0.9603  
Epoch 79254/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0288 - accuracy:  
0.9596  
Epoch 79255/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
0.9595  
Epoch 79256/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0294 - accuracy:  
0.9597  
Epoch 79257/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
0.9592  
Epoch 79258/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9594  
Epoch 79259/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0293 - accuracy:  
0.9595  
Epoch 79260/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9589  
Epoch 79261/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0290 - accuracy:  
0.9598  
Epoch 79262/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
0.9595  
Epoch 79263/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
0.9601  
Epoch 79264/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9590  
Epoch 79265/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9600  
Epoch 79266/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
0.9599  
Epoch 79267/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9606  
Epoch 79268/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9594  
Epoch 79269/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9609  
Epoch 79270/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9595  
Epoch 79271/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0294 - accuracy:  
0.9591  
Epoch 79272/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9591  
Epoch 79273/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy:  
0.9602  
Epoch 79274/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9597  
Epoch 79275/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy:  
0.9593  
Epoch 79276/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:  
0.9586  
Epoch 79277/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0294 - accuracy:  
0.9599  
Epoch 79278/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy:  
0.9606  
Epoch 79279/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0289 - accuracy:  
0.9602  
Epoch 79280/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9590  
Epoch 79281/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9598  
Epoch 79282/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:  
0.9599  
Epoch 79283/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
0.9587  
Epoch 79284/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9599  
Epoch 79285/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
0.9591  
Epoch 79286/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9597  
Epoch 79287/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9594  
Epoch 79288/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0289 - accuracy:  
0.9606  
Epoch 79289/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy:  
0.9599  
Epoch 79290/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
0.9597  
Epoch 79291/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy:  
0.9586  
Epoch 79292/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0284 - accuracy:  
0.9584  
Epoch 79293/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9593  
Epoch 79294/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0283 - accuracy:  
0.9591  
Epoch 79295/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy:  
0.9594  
Epoch 79296/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9596  
Epoch 79297/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
0.9598  
Epoch 79298/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0280 - accuracy:  
0.9589  
Epoch 79299/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
0.9600  
Epoch 79300/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
0.9599  
Epoch 79301/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
0.9599  
Epoch 79302/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
0.9584  
Epoch 79303/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0288 - accuracy:  
0.9599  
Epoch 79304/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
0.9599  
Epoch 79305/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0284 - accuracy:  
0.9586  
Epoch 79306/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy:  
0.9603  
Epoch 79307/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0291 - accuracy:  
0.9602  
Epoch 79308/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9595  
Epoch 79309/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
0.9600  
Epoch 79310/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
0.9594  
Epoch 79311/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0291 - accuracy:  
0.9605  
Epoch 79312/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
0.9597  
Epoch 79313/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9588  
Epoch 79314/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9593  
Epoch 79315/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy:  
0.9601  
Epoch 79316/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9601  
Epoch 79317/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9594  
Epoch 79318/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy:  
0.9599  
Epoch 79319/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0290 - accuracy:  
0.9590  
Epoch 79320/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9595  
Epoch 79321/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9587  
Epoch 79322/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0293 - accuracy: 0.9591  
Epoch 79323/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy: 0.9599  
Epoch 79324/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy: 0.9593  
Epoch 79325/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9597  
Epoch 79326/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy: 0.9595  
Epoch 79327/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy: 0.9601  
Epoch 79328/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy: 0.9596  
Epoch 79329/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9594  
Epoch 79330/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy: 0.9599  
Epoch 79331/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy: 0.9603  
Epoch 79332/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy: 0.9603  
Epoch 79333/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9606  
Epoch 79334/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0296 - accuracy: 0.9600  
Epoch 79335/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy: 0.9594  
Epoch 79336/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy: 0.9594  
Epoch 79337/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
0.9601  
Epoch 79338/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
0.9592  
Epoch 79339/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy:  
0.9599  
Epoch 79340/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9592  
Epoch 79341/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy:  
0.9585  
Epoch 79342/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9595  
Epoch 79343/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9594  
Epoch 79344/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9600  
Epoch 79345/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
0.9596  
Epoch 79346/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0289 - accuracy:  
0.9606  
Epoch 79347/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0287 - accuracy:  
0.9600  
Epoch 79348/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9589  
Epoch 79349/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0281 - accuracy:  
0.9598  
Epoch 79350/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9587  
Epoch 79351/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
0.9587  
Epoch 79352/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9608  
Epoch 79353/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
0.9594  
Epoch 79354/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
0.9599  
Epoch 79355/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
0.9585  
Epoch 79356/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9602  
Epoch 79357/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0284 - accuracy:  
0.9597  
Epoch 79358/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
0.9601  
Epoch 79896/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
0.9590  
Epoch 79897/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
0.9601  
Epoch 79898/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9594  
Epoch 79899/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0292 - accuracy:  
0.9607  
Epoch 79900/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0283 - accuracy:  
0.9595  
Epoch 79901/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
0.9593  
Epoch 79902/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0280 - accuracy:  
0.9594  
Epoch 79903/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
0.9593  
Epoch 79904/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0290 - accuracy:  
0.9599  
Epoch 79905/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy:  
0.9589  
Epoch 79906/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0292 - accuracy:  
0.9596  
Epoch 79907/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9601  
Epoch 79908/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0294 - accuracy:  
0.9600  
Epoch 79909/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0291 - accuracy:  
0.9591  
Epoch 79910/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9592  
Epoch 79911/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0292 - accuracy:  
0.9597  
Epoch 79912/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
0.9591  
Epoch 79913/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
0.9600  
Epoch 79914/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
0.9596  
Epoch 79915/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:  
0.9596  
Epoch 79916/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9599  
Epoch 79917/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0285 - accuracy:  
0.9600  
Epoch 79918/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
0.9590  
Epoch 79919/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:  
0.9592  
Epoch 79920/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
0.9606  
Epoch 79921/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9592  
Epoch 79922/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0287 - accuracy: 0.9596  
Epoch 79923/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy: 0.9594  
Epoch 79924/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0281 - accuracy: 0.9585  
Epoch 79925/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy: 0.9601  
Epoch 79926/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy: 0.9600  
Epoch 79927/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0282 - accuracy: 0.9589  
Epoch 79928/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0284 - accuracy: 0.9591  
Epoch 79929/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy: 0.9588  
Epoch 79930/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0281 - accuracy: 0.9595  
Epoch 79931/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9599  
Epoch 79932/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy: 0.9593  
Epoch 79933/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0284 - accuracy: 0.9588  
Epoch 79934/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0287 - accuracy: 0.9597  
Epoch 79935/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0290 - accuracy: 0.9595  
Epoch 79936/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9590  
Epoch 79937/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy: 0.9598  
Epoch 79938/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
0.9593  
Epoch 79939/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0283 - accuracy:  
0.9597  
Epoch 79940/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
0.9594  
Epoch 79941/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy:  
0.9604  
Epoch 79942/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:  
0.9603  
Epoch 79943/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9592  
Epoch 79944/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9594  
Epoch 79945/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
0.9600  
Epoch 79946/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0290 - accuracy:  
0.9601  
Epoch 79947/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9593  
Epoch 79948/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9592  
Epoch 79949/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy:  
0.9588  
Epoch 79950/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0286 - accuracy:  
0.9588  
Epoch 79951/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9593  
Epoch 79952/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
0.9591  
Epoch 79953/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0286 - accuracy:  
0.9593  
Epoch 79954/100000

2/2 [=====] - 0s 120ms/step - loss: 0.0286 - accuracy:  
0.9596  
Epoch 79955/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9606  
Epoch 79956/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy:  
0.9593  
Epoch 79957/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:  
0.9593  
Epoch 79958/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0291 - accuracy:  
0.9602  
Epoch 79959/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9592  
Epoch 79960/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9595  
Epoch 79961/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9604  
Epoch 79962/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9599  
Epoch 79963/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0299 - accuracy:  
0.9595  
Epoch 79964/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy:  
0.9597  
Epoch 79965/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
0.9594  
Epoch 79966/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0298 - accuracy:  
0.9595  
Epoch 79967/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0290 - accuracy:  
0.9590  
Epoch 79968/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
0.9591  
Epoch 79969/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0292 - accuracy:  
0.9591  
Epoch 79970/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy: 0.9588  
Epoch 79971/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy: 0.9592  
Epoch 79972/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy: 0.9596  
Epoch 79973/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy: 0.9598  
Epoch 79974/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0286 - accuracy: 0.9587  
Epoch 79975/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9590  
Epoch 79976/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy: 0.9595  
Epoch 79977/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy: 0.9590  
Epoch 79978/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0292 - accuracy: 0.9598  
Epoch 79979/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy: 0.9608  
Epoch 79980/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy: 0.9597  
Epoch 79981/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0291 - accuracy: 0.9597  
Epoch 79982/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy: 0.9591  
Epoch 79983/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0282 - accuracy: 0.9597  
Epoch 79984/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy: 0.9592  
Epoch 79985/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9595  
Epoch 79986/100000



2/2 [=====] - 0s 117ms/step - loss: 0.0286 - accuracy:  
0.9599  
Epoch 79987/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9598  
Epoch 79988/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy:  
0.9604  
Epoch 79989/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy:  
0.9600  
Epoch 79990/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0287 - accuracy:  
0.9601  
Epoch 79991/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
0.9596  
Epoch 79992/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9591  
Epoch 79993/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9600  
Epoch 79994/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9593  
Epoch 79995/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0292 - accuracy:  
0.9591  
Epoch 79996/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0287 - accuracy:  
0.9595  
Epoch 79997/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy:  
0.9593  
Epoch 79998/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0291 - accuracy:  
0.9592  
Epoch 79999/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9596  
Epoch 80000/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9593  
Epoch 80001/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
0.9596  
Epoch 80002/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy:  
0.9601  
Epoch 80003/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9596  
Epoch 80004/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9588  
Epoch 80005/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9598  
Epoch 80006/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9604  
Epoch 80007/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0292 - accuracy:  
0.9597  
Epoch 80008/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:  
0.9599  
Epoch 80009/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
0.9600  
Epoch 80010/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
0.9592  
Epoch 80011/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy:  
0.9601  
Epoch 80012/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0285 - accuracy:  
0.9594  
Epoch 80013/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0292 - accuracy:  
0.9595  
Epoch 80014/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0286 - accuracy:  
0.9598  
Epoch 80015/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0289 - accuracy:  
0.9605  
Epoch 80016/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
0.9598  
Epoch 80017/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:  
0.9601  
Epoch 80018/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy: 0.9590  
Epoch 80019/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0284 - accuracy: 0.9598  
Epoch 80020/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy: 0.9604  
Epoch 80021/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9596  
Epoch 80022/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy: 0.9597  
Epoch 80023/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0286 - accuracy: 0.9599  
Epoch 80024/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9592  
Epoch 80025/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy: 0.9587  
Epoch 80026/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy: 0.9592  
Epoch 80027/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy: 0.9588  
Epoch 80028/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy: 0.9598  
Epoch 80029/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy: 0.9602  
Epoch 80030/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy: 0.9600  
Epoch 80031/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0296 - accuracy: 0.9593  
Epoch 80032/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy: 0.9596  
Epoch 80033/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy: 0.9597  
Epoch 80034/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0294 - accuracy:  
0.9598  
Epoch 80035/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0290 - accuracy:  
0.9594  
Epoch 80036/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9600  
Epoch 80037/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0289 - accuracy:  
0.9612  
Epoch 80038/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9599  
Epoch 80039/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy:  
0.9593  
Epoch 80040/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9599  
Epoch 80041/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9590  
Epoch 80042/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9604  
Epoch 80043/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9597  
Epoch 80044/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy:  
0.9599  
Epoch 80045/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0290 - accuracy:  
0.9594  
Epoch 80046/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0290 - accuracy:  
0.9602  
Epoch 80047/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9601  
Epoch 80048/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy:  
0.9604  
Epoch 80049/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy:  
0.9589  
Epoch 80050/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9598  
Epoch 80051/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
0.9608  
Epoch 80052/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
0.9594  
Epoch 80053/100000  
2/2 [=====] - 0s 131ms/step - loss: 0.0298 - accuracy:  
0.9598  
Epoch 80054/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0296 - accuracy:  
0.9602  
Epoch 80055/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy:  
0.9597  
Epoch 80056/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9597  
Epoch 80057/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:  
0.9591  
Epoch 80058/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0290 - accuracy:  
0.9594  
Epoch 80059/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy:  
0.9604  
Epoch 80060/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0293 - accuracy:  
0.9595  
Epoch 80061/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy:  
0.9594  
Epoch 80062/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy:  
0.9595  
Epoch 80063/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy:  
0.9587  
Epoch 80064/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9607  
Epoch 80065/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9593  
Epoch 80066/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy: 0.9597  
Epoch 80067/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy: 0.9595  
Epoch 80068/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy: 0.9600  
Epoch 80069/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy: 0.9605  
Epoch 80070/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9590  
Epoch 80071/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy: 0.9600  
Epoch 80072/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0288 - accuracy: 0.9605  
Epoch 80073/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0290 - accuracy: 0.9597  
Epoch 80074/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy: 0.9597  
Epoch 80075/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy: 0.9600  
Epoch 80076/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy: 0.9599  
Epoch 80077/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0284 - accuracy: 0.9596  
Epoch 80078/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy: 0.9598  
Epoch 80079/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy: 0.9600  
Epoch 80080/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9598  
Epoch 80081/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy: 0.9588  
Epoch 80082/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0282 - accuracy:  
0.9587  
Epoch 80083/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9604  
Epoch 80084/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0292 - accuracy:  
0.9590  
Epoch 80085/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy:  
0.9601  
Epoch 80086/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0289 - accuracy:  
0.9601  
Epoch 80087/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy:  
0.9596  
Epoch 80088/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
0.9601  
Epoch 80089/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9589  
Epoch 80090/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
0.9598  
Epoch 80091/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
0.9592  
Epoch 80092/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0289 - accuracy:  
0.9594  
Epoch 80093/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0287 - accuracy:  
0.9602  
Epoch 80094/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
0.9597  
Epoch 80095/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
0.9595  
Epoch 80096/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy:  
0.9605  
Epoch 80097/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9594  
Epoch 80098/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy:  
0.9599  
Epoch 80099/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0286 - accuracy:  
0.9590  
Epoch 80100/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
0.9594  
Epoch 80101/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9595  
Epoch 80102/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9593  
Epoch 80103/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:  
0.9584  
Epoch 80104/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
0.9590  
Epoch 80105/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9595  
Epoch 80106/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9599  
Epoch 80107/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0280 - accuracy:  
0.9584  
Epoch 80108/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
0.9593  
Epoch 80109/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9597  
Epoch 80110/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0290 - accuracy:  
0.9603  
Epoch 80111/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9598  
Epoch 80112/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9591  
Epoch 80113/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
0.9585  
Epoch 80114/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9591  
Epoch 80115/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0287 - accuracy:  
0.9597  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
0.9604  
Epoch 80651/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0289 - accuracy:  
0.9595  
Epoch 80652/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9595  
Epoch 80653/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9613  
Epoch 80654/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0291 - accuracy:  
0.9598  
Epoch 80655/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0285 - accuracy:  
0.9588  
Epoch 80656/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0284 - accuracy:  
0.9594  
Epoch 80657/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9604  
Epoch 80658/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
0.9597  
Epoch 80659/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0288 - accuracy:  
0.9585  
Epoch 80660/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
0.9596  
Epoch 80661/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9591  
Epoch 80662/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9595  
Epoch 80663/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
0.9601  
Epoch 80664/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0288 - accuracy:

0.9592  
Epoch 80665/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy: 0.9598  
Epoch 80666/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy: 0.9602  
Epoch 80667/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy: 0.9594  
Epoch 80668/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy: 0.9585  
Epoch 80669/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy: 0.9595  
Epoch 80670/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9587  
Epoch 80671/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0284 - accuracy: 0.9592  
Epoch 80672/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy: 0.9591  
Epoch 80673/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0282 - accuracy: 0.9597  
Epoch 80674/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0283 - accuracy: 0.9592  
Epoch 80675/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9604  
Epoch 80676/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy: 0.9599  
Epoch 80677/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy: 0.9593  
Epoch 80678/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9593  
Epoch 80679/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0290 - accuracy: 0.9592  
Epoch 80680/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0300 - accuracy:

0.9589  
Epoch 80681/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0298 - accuracy:  
0.9594  
Epoch 80682/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
0.9594  
Epoch 80683/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9599  
Epoch 80684/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0294 - accuracy:  
0.9592  
Epoch 80685/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy:  
0.9592  
Epoch 80686/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0291 - accuracy:  
0.9597  
Epoch 80687/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy:  
0.9594  
Epoch 80688/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0287 - accuracy:  
0.9598  
Epoch 80689/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
0.9598  
Epoch 80690/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9598  
Epoch 80691/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0289 - accuracy:  
0.9593  
Epoch 80692/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
0.9600  
Epoch 80693/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0286 - accuracy:  
0.9594  
Epoch 80694/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0284 - accuracy:  
0.9590  
Epoch 80695/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0284 - accuracy:  
0.9606  
Epoch 80696/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy:

0.9593  
Epoch 80697/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy: 0.9590  
Epoch 80698/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0283 - accuracy: 0.9596  
Epoch 80699/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy: 0.9591  
Epoch 80700/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0290 - accuracy: 0.9602  
Epoch 80701/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9600  
Epoch 80702/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy: 0.9595  
Epoch 80703/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0286 - accuracy: 0.9595  
Epoch 80704/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy: 0.9597  
Epoch 80705/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0282 - accuracy: 0.9595  
Epoch 80706/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9594  
Epoch 80707/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy: 0.9610  
Epoch 80708/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9602  
Epoch 80709/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy: 0.9598  
Epoch 80710/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy: 0.9589  
Epoch 80711/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9592  
Epoch 80712/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:

0.9592  
 Epoch 80713/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy:  
 0.9597  
 Epoch 80714/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy:  
 0.9597  
 Epoch 80715/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
 0.9593  
 Epoch 80716/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
 0.9593  
 Epoch 80717/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0292 - accuracy:  
 0.9596  
 Epoch 80718/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
 0.9598  
 Epoch 80719/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy:  
 0.9597  
 Epoch 80720/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
 0.9604  
 Epoch 80721/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
 0.9588  
 Epoch 80722/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
 0.9594  
 Epoch 80723/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
 0.9587  
 Epoch 80724/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0287 - accuracy:  
 0.9597  
 Epoch 80725/100000  
 2/2 [=====] - 0s 122ms/step - loss: 0.0291 - accuracy:  
 0.9591  
 Epoch 80726/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy:  
 0.9596  
 Epoch 80727/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
 0.9591  
 Epoch 80728/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0286 - accuracy:

0.9589  
Epoch 80729/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9596  
Epoch 80730/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
0.9589  
Epoch 80731/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
0.9596  
Epoch 80732/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9597  
Epoch 80733/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0284 - accuracy:  
0.9601  
Epoch 80734/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy:  
0.9603  
Epoch 80735/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy:  
0.9590  
Epoch 80736/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
0.9597  
Epoch 80737/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9604  
Epoch 80738/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
0.9606  
Epoch 80739/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
0.9590  
Epoch 80740/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9594  
Epoch 80741/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9605  
Epoch 80742/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy:  
0.9593  
Epoch 80743/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy:  
0.9596  
Epoch 80744/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0294 - accuracy:

0.9600  
Epoch 80745/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy: 0.9594  
Epoch 80746/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy: 0.9592  
Epoch 80747/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9595  
Epoch 80748/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9597  
Epoch 80749/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy: 0.9598  
Epoch 80750/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy: 0.9591  
Epoch 80751/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy: 0.9592  
Epoch 80752/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy: 0.9602  
Epoch 80753/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy: 0.9597  
Epoch 80754/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0289 - accuracy: 0.9597  
Epoch 80755/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0291 - accuracy: 0.9597  
Epoch 80756/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0291 - accuracy: 0.9603  
Epoch 80757/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy: 0.9596  
Epoch 80758/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy: 0.9596  
Epoch 80759/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9594  
Epoch 80760/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy:

0.9593  
Epoch 80761/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9595  
Epoch 80762/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9593  
Epoch 80763/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy: 0.9605  
Epoch 80764/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0284 - accuracy: 0.9591  
Epoch 80765/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0291 - accuracy: 0.9593  
Epoch 80766/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy: 0.9594  
Epoch 80767/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9597  
Epoch 80768/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy: 0.9594  
Epoch 80769/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9590  
Epoch 80770/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy: 0.9598  
Epoch 80771/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9591  
Epoch 80772/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0291 - accuracy: 0.9600  
Epoch 80773/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy: 0.9592  
Epoch 80774/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy: 0.9597  
Epoch 80775/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy: 0.9588  
Epoch 80776/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:



0.9597  
Epoch 80777/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
0.9597  
Epoch 80778/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9597  
Epoch 80779/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
0.9591  
Epoch 80780/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9594  
Epoch 80781/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
0.9594  
Epoch 80782/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
0.9589  
Epoch 80783/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9595  
Epoch 80784/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
0.9594  
Epoch 80785/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
0.9596  
Epoch 80786/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0283 - accuracy:  
0.9598  
Epoch 80787/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
0.9599  
Epoch 80788/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:  
0.9590  
Epoch 80789/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy:  
0.9593  
Epoch 80790/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0289 - accuracy:  
0.9594  
Epoch 80791/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:  
0.9603  
Epoch 80792/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0286 - accuracy:

0.9591  
 Epoch 80793/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
 0.9597  
 Epoch 80794/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0288 - accuracy:  
 0.9601  
 Epoch 80795/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0288 - accuracy:  
 0.9592  
 Epoch 80796/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0310 - accuracy:  
 0.9592  
 Epoch 80797/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
 0.9601  
 Epoch 80798/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0290 - accuracy:  
 0.9597  
 Epoch 80799/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
 0.9595  
 Epoch 80800/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
 0.9602  
 Epoch 80801/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0298 - accuracy:  
 0.9596  
 Epoch 80802/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
 0.9595  
 Epoch 80803/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
 0.9595  
 Epoch 80804/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
 0.9599  
 Epoch 80805/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0289 - accuracy:  
 0.9600  
 Epoch 80806/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy:  
 0.9598  
 Epoch 80807/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
 0.9591  
 Epoch 80808/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0292 - accuracy:

0.9596  
 Epoch 80809/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
 0.9596  
 Epoch 80810/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0292 - accuracy:  
 0.9603  
 Epoch 80811/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
 0.9590  
 Epoch 80812/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0292 - accuracy:  
 0.9606  
 Epoch 80813/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
 0.9600  
 Epoch 80814/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
 0.9611  
 Epoch 80815/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
 0.9604  
 Epoch 80816/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
 0.9595  
 Epoch 80817/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
 0.9592  
 Epoch 80818/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:  
 0.9599  
 Epoch 80819/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0305 - accuracy:  
 0.9599  
 Epoch 80820/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
 0.9596  
 Epoch 80821/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
 0.9590  
 Epoch 80822/100000  
 2/2 [=====] - 0s 122ms/step - loss: 0.0300 - accuracy:  
 0.9608  
 Epoch 80823/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0294 - accuracy:  
 0.9599  
 Epoch 80824/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0299 - accuracy:

0.9587  
 Epoch 80825/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy:  
 0.9600  
 Epoch 80826/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:  
 0.9596  
 Epoch 80827/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0293 - accuracy:  
 0.9601  
 Epoch 80828/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
 0.9603  
 Epoch 80829/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
 0.9594  
 Epoch 80830/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
 0.9590  
 Epoch 80831/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
 0.9586  
 Epoch 80832/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
 0.9604  
 Epoch 80833/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
 0.9595  
 Epoch 80834/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
 0.9602  
 Epoch 80835/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0284 - accuracy:  
 0.9598  
 Epoch 80836/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
 0.9592  
 Epoch 80837/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
 0.9596  
 Epoch 80838/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy:  
 0.9600  
 Epoch 80839/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0284 - accuracy:  
 0.9597  
 Epoch 80840/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:

0.9602  
 Epoch 80841/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
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 Epoch 80842/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
 0.9596  
 Epoch 80843/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
 0.9601  
 Epoch 80844/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
 0.9590  
 Epoch 80845/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:  
 0.9585  
 Epoch 80846/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
 0.9604  
 Epoch 80847/100000  
 2/2 [=====] - 0s 120ms/step - loss: 0.0286 - accuracy:  
 0.9592  
 Epoch 80848/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
 0.9592  
 Epoch 80849/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
 0.9596  
 Epoch 80850/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
 0.9601  
 Epoch 80851/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
 0.9598  
 Epoch 80852/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
 0.9604  
 Epoch 80853/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
 0.9589  
 Epoch 80854/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
 0.9596  
 Epoch 80855/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
 0.9591  
 Epoch 80856/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy:

0.9594  
Epoch 80857/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy: 0.9599  
Epoch 80858/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0284 - accuracy: 0.9597  
Epoch 80859/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy: 0.9596  
Epoch 80860/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy: 0.9593  
Epoch 80861/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy: 0.9593  
Epoch 80862/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy: 0.9606  
Epoch 80863/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy: 0.9592  
Epoch 80864/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy: 0.9599  
Epoch 80865/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9593  
Epoch 80866/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0291 - accuracy: 0.9589  
Epoch 80867/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy: 0.9597  
Epoch 80868/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy: 0.9597  
Epoch 81398/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy: 0.9596  
Epoch 81399/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0293 - accuracy: 0.9595  
Epoch 81400/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy: 0.9597  
Epoch 81401/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:

0.9587  
Epoch 81402/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9598  
Epoch 81403/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0285 - accuracy:  
0.9600  
Epoch 81404/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0287 - accuracy:  
0.9594  
Epoch 81405/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy:  
0.9594  
Epoch 81406/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
0.9597  
Epoch 81407/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0284 - accuracy:  
0.9593  
Epoch 81408/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
0.9593  
Epoch 81409/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy:  
0.9605  
Epoch 81410/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9595  
Epoch 81411/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0293 - accuracy:  
0.9596  
Epoch 81412/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9603  
Epoch 81413/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0294 - accuracy:  
0.9596  
Epoch 81414/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9600  
Epoch 81415/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9605  
Epoch 81416/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
0.9605  
Epoch 81417/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0293 - accuracy:

0.9599  
 Epoch 81418/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0293 - accuracy:  
 0.9597  
 Epoch 81419/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0288 - accuracy:  
 0.9593  
 Epoch 81420/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
 0.9604  
 Epoch 81421/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy:  
 0.9600  
 Epoch 81422/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
 0.9590  
 Epoch 81423/100000  
 2/2 [=====] - 0s 121ms/step - loss: 0.0291 - accuracy:  
 0.9589  
 Epoch 81424/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
 0.9592  
 Epoch 81425/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
 0.9601  
 Epoch 81426/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
 0.9601  
 Epoch 81427/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
 0.9589  
 Epoch 81428/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0288 - accuracy:  
 0.9588  
 Epoch 81429/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
 0.9595  
 Epoch 81430/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
 0.9602  
 Epoch 81431/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0286 - accuracy:  
 0.9598  
 Epoch 81432/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0287 - accuracy:  
 0.9606  
 Epoch 81433/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0286 - accuracy:



0.9600  
Epoch 81434/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy: 0.9598  
Epoch 81435/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy: 0.9597  
Epoch 81436/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9589  
Epoch 81437/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy: 0.9598  
Epoch 81438/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0295 - accuracy: 0.9598  
Epoch 81439/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy: 0.9599  
Epoch 81440/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0292 - accuracy: 0.9596  
Epoch 81441/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy: 0.9590  
Epoch 81442/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy: 0.9586  
Epoch 81443/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy: 0.9599  
Epoch 81444/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy: 0.9594  
Epoch 81445/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0289 - accuracy: 0.9604  
Epoch 81446/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9599  
Epoch 81447/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy: 0.9595  
Epoch 81448/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy: 0.9596  
Epoch 81449/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:

0.9602  
 Epoch 81450/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy:  
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 Epoch 81451/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:  
 0.9596  
 Epoch 81452/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0283 - accuracy:  
 0.9593  
 Epoch 81453/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0288 - accuracy:  
 0.9592  
 Epoch 81454/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
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 Epoch 81455/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0280 - accuracy:  
 0.9590  
 Epoch 81456/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
 0.9597  
 Epoch 81457/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy:  
 0.9590  
 Epoch 81458/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
 0.9603  
 Epoch 81459/100000  
 2/2 [=====] - 0s 120ms/step - loss: 0.0298 - accuracy:  
 0.9592  
 Epoch 81460/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
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 Epoch 81461/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
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 Epoch 81462/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy:  
 0.9592  
 Epoch 81463/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0296 - accuracy:  
 0.9600  
 Epoch 81464/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0306 - accuracy:  
 0.9596  
 Epoch 81465/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy:

0.9608  
 Epoch 81466/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
 0.9596  
 Epoch 81467/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy:  
 0.9598  
 Epoch 81468/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0303 - accuracy:  
 0.9605  
 Epoch 81469/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy:  
 0.9593  
 Epoch 81470/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
 0.9595  
 Epoch 81471/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
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 Epoch 81472/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
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 Epoch 81473/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
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 Epoch 81474/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
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 Epoch 81475/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0307 - accuracy:  
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 Epoch 81476/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0319 - accuracy:  
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 Epoch 81477/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0322 - accuracy:  
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 Epoch 81478/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:  
 0.9592  
 Epoch 81479/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0317 - accuracy:  
 0.9601  
 Epoch 81480/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy:  
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 Epoch 81481/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0302 - accuracy:

0.9598  
 Epoch 81482/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
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 Epoch 81483/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
 0.9591  
 Epoch 81484/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0295 - accuracy:  
 0.9593  
 Epoch 81485/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
 0.9590  
 Epoch 81486/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
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 Epoch 81487/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
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 Epoch 81488/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
 0.9597  
 Epoch 81489/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
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 Epoch 81490/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
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 Epoch 81491/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
 0.9586  
 Epoch 81492/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:  
 0.9597  
 Epoch 81493/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
 0.9602  
 Epoch 81494/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
 0.9599  
 Epoch 81495/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0292 - accuracy:  
 0.9593  
 Epoch 81496/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
 0.9597  
 Epoch 81497/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:

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0.9599
Epoch 81498/100000
2/2 [=====] - 0s 117ms/step - loss: 0.0286 - accuracy:
0.9594
Epoch 81499/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:
0.9600
Epoch 81500/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:
0.9594
Epoch 81501/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:
0.9595
Epoch 81502/100000
2/2 [=====] - 0s 120ms/step - loss: 0.0284 - accuracy:
0.9589
Epoch 81503/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:
0.9600
Epoch 81504/100000
2/2 [=====] - 0s 117ms/step - loss: 0.0287 - accuracy:
0.9604
Epoch 81505/100000
2/2 [=====] - 0s 117ms/step - loss: 0.0284 - accuracy:
0.9596
Epoch 81506/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:
0.9589
Epoch 81507/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0282 - accuracy:
0.9600
Epoch 81508/100000
2/2 [=====] - 0s 117ms/step - loss: 0.0284 - accuracy:
0.9587
Epoch 81509/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:
0.9592
Epoch 81510/100000
2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy:
0.9596
Epoch 81511/100000
2/2 [=====] - 0s 119ms/step - loss: 0.0287 - accuracy:
0.9595
Epoch 81512/100000
2/2 [=====] - 0s 116ms/step - loss: 0.0282 - accuracy:
0.9586
Epoch 81513/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:

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0.9594
Epoch 81514/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:
0.9596
Epoch 81515/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:
0.9594
Epoch 81516/100000
2/2 [=====] - 0s 118ms/step - loss: 0.0290 - accuracy:
0.9609
Epoch 81517/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:
0.9591
Epoch 81518/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:
0.9598
Epoch 81519/100000
2/2 [=====] - 0s 118ms/step - loss: 0.0289 - accuracy:
0.9591
Epoch 81520/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:
0.9598
Epoch 81521/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:
0.9592
Epoch 81522/100000
2/2 [=====] - 0s 119ms/step - loss: 0.0295 - accuracy:
0.9594
Epoch 81523/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:
0.9593
Epoch 81524/100000
2/2 [=====] - 0s 116ms/step - loss: 0.0291 - accuracy:
0.9589
Epoch 81525/100000
2/2 [=====] - 0s 117ms/step - loss: 0.0288 - accuracy:
0.9605
Epoch 81526/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:
0.9603
Epoch 81527/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy:
0.9594
Epoch 81528/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:
0.9596
Epoch 81529/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:

```

```

0.9599
Epoch 81530/100000
2/2 [=====] - 0s 117ms/step - loss: 0.0283 - accuracy:
0.9585
Epoch 81531/100000
2/2 [=====] - 0s 116ms/step - loss: 0.0290 - accuracy:
0.9599
Epoch 81532/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:
0.9609
Epoch 81533/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:
0.9601
Epoch 81534/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:
0.9599
Epoch 81535/100000
2/2 [=====] - 0s 116ms/step - loss: 0.0291 - accuracy:
0.9596
Epoch 81536/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:
0.9586
Epoch 81537/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:
0.9599
Epoch 81538/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy:
0.9601
Epoch 81539/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:
0.9593
Epoch 81540/100000
2/2 [=====] - 0s 118ms/step - loss: 0.0292 - accuracy:
0.9603
Epoch 81541/100000
2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy:
0.9589
Epoch 81542/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:
0.9595
Epoch 81543/100000
2/2 [=====] - 0s 116ms/step - loss: 0.0292 - accuracy:
0.9597
Epoch 81544/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy:
0.9590
Epoch 81545/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:

```

0.9596  
Epoch 81546/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy:  
0.9598  
Epoch 81547/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0293 - accuracy:  
0.9602  
Epoch 81548/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy:  
0.9595  
Epoch 81549/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0286 - accuracy:  
0.9593  
Epoch 81550/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy:  
0.9596  
Epoch 81551/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
0.9600  
Epoch 81552/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9590  
Epoch 81553/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0290 - accuracy:  
0.9591  
Epoch 81554/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
0.9597  
Epoch 81555/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0287 - accuracy:  
0.9590  
Epoch 81556/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9597  
Epoch 81557/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9603  
Epoch 81558/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0290 - accuracy:  
0.9588  
Epoch 81559/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9598  
Epoch 81560/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
0.9597  
Epoch 81561/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy:



```

0.9591
Epoch 81562/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:
0.9593
Epoch 81563/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0282 - accuracy:
0.9596
Epoch 81564/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:
0.9596
Epoch 81565/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:
0.9597
Epoch 81566/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:
0.9589
Epoch 81567/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0282 - accuracy:
0.9600
Epoch 81568/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:
0.9587
Epoch 81569/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0282 - accuracy:
0.9602
Epoch 81570/100000
2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy:
0.9597
Epoch 81571/100000
2/2 [=====] - 0s 118ms/step - loss: 0.0282 - accuracy:
0.9599
Epoch 81572/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:
0.9595
Epoch 81573/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:
0.9590
Epoch 81574/100000
2/2 [=====] - 0s 117ms/step - loss: 0.0284 - accuracy:
0.9607
Epoch 81575/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:
0.9596
Epoch 81576/100000
2/2 [=====] - 0s 117ms/step - loss: 0.0290 - accuracy:
0.9597
Epoch 81577/100000
2/2 [=====] - 0s 117ms/step - loss: 0.0287 - accuracy:

```

0.9597  
Epoch 81578/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy: 0.9600  
Epoch 81579/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy: 0.9606  
Epoch 81580/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy: 0.9600  
Epoch 81581/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0287 - accuracy: 0.9598  
Epoch 81582/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy: 0.9590  
Epoch 81583/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy: 0.9592  
Epoch 81584/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0291 - accuracy: 0.9598  
Epoch 81585/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy: 0.9594  
Epoch 81586/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy: 0.9594  
Epoch 81587/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0292 - accuracy: 0.9597  
Epoch 81588/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy: 0.9600  
Epoch 81589/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9599  
Epoch 81590/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0286 - accuracy: 0.9591  
Epoch 81591/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy: 0.9593  
Epoch 81592/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy: 0.9598  
Epoch 81593/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0284 - accuracy:

```

0.9597
Epoch 81594/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:
0.9591
Epoch 81595/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:
0.9596
Epoch 81596/100000
2/2 [=====] - 0s 117ms/step - loss: 0.0289 - accuracy:
0.9611
Epoch 81597/100000
2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy:
0.9590
Epoch 81598/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:
0.9599
Epoch 81599/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy:
0.9603
Epoch 81600/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:
0.9601
Epoch 81601/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0282 - accuracy:
0.9599
Epoch 81602/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:
0.9600
Epoch 81603/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:
0.9597
Epoch 81604/100000
2/2 [=====] - 0s 117ms/step - loss: 0.0293 - accuracy:
0.9597
Epoch 81605/100000
2/2 [=====] - 0s 117ms/step - loss: 0.0292 - accuracy:
0.9600
Epoch 81606/100000
2/2 [=====] - 0s 120ms/step - loss: 0.0287 - accuracy:
0.9593
Epoch 81607/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy:
0.9603
Epoch 81608/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:
0.9593
Epoch 81609/100000
2/2 [=====] - 0s 117ms/step - loss: 0.0287 - accuracy:

```

0.9589  
Epoch 81610/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
0.9593  
Epoch 81611/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0293 - accuracy:  
0.9606  
Epoch 81612/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
0.9594  
Epoch 81613/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9589  
Epoch 81614/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0290 - accuracy:  
0.9598  
Epoch 81615/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9598  
Epoch 82148/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0286 - accuracy:  
0.9602  
Epoch 82149/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0284 - accuracy:  
0.9600  
Epoch 82150/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy:  
0.9598  
Epoch 82151/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
0.9599  
Epoch 82152/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy:  
0.9598  
Epoch 82153/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0290 - accuracy:  
0.9599  
Epoch 82154/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9600  
Epoch 82155/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0295 - accuracy:  
0.9605  
Epoch 82156/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0288 - accuracy:  
0.9598  
Epoch 82157/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy:

0.9589  
 Epoch 82158/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
 0.9592  
 Epoch 82159/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy:  
 0.9599  
 Epoch 82160/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
 0.9593  
 Epoch 82161/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
 0.9587  
 Epoch 82162/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0290 - accuracy:  
 0.9598  
 Epoch 82163/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
 0.9592  
 Epoch 82164/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
 0.9588  
 Epoch 82165/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy:  
 0.9598  
 Epoch 82166/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0288 - accuracy:  
 0.9592  
 Epoch 82167/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0290 - accuracy:  
 0.9602  
 Epoch 82168/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0291 - accuracy:  
 0.9600  
 Epoch 82169/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
 0.9600  
 Epoch 82170/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0283 - accuracy:  
 0.9591  
 Epoch 82171/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0285 - accuracy:  
 0.9585  
 Epoch 82172/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
 0.9595  
 Epoch 82173/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:

0.9589  
Epoch 82174/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy: 0.9603  
Epoch 82175/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0294 - accuracy: 0.9602  
Epoch 82176/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy: 0.9596  
Epoch 82177/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy: 0.9597  
Epoch 82178/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy: 0.9593  
Epoch 82179/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy: 0.9599  
Epoch 82180/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy: 0.9590  
Epoch 82181/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy: 0.9595  
Epoch 82182/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy: 0.9600  
Epoch 82183/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9588  
Epoch 82184/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy: 0.9592  
Epoch 82185/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy: 0.9595  
Epoch 82186/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy: 0.9610  
Epoch 82187/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy: 0.9595  
Epoch 82188/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0282 - accuracy: 0.9590  
Epoch 82189/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy:

0.9600  
 Epoch 82190/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0288 - accuracy:  
 0.9591  
 Epoch 82191/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
 0.9596  
 Epoch 82192/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
 0.9601  
 Epoch 82193/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
 0.9589  
 Epoch 82194/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0289 - accuracy:  
 0.9606  
 Epoch 82195/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
 0.9596  
 Epoch 82196/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
 0.9589  
 Epoch 82197/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
 0.9599  
 Epoch 82198/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
 0.9597  
 Epoch 82199/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
 0.9594  
 Epoch 82200/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
 0.9605  
 Epoch 82201/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy:  
 0.9601  
 Epoch 82202/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
 0.9589  
 Epoch 82203/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
 0.9590  
 Epoch 82204/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
 0.9602  
 Epoch 82205/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0289 - accuracy:

0.9593  
 Epoch 82206/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:  
 0.9591  
 Epoch 82207/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
 0.9597  
 Epoch 82208/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
 0.9606  
 Epoch 82209/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
 0.9608  
 Epoch 82210/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy:  
 0.9590  
 Epoch 82211/100000  
 2/2 [=====] - 0s 113ms/step - loss: 0.0286 - accuracy:  
 0.9594  
 Epoch 82212/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
 0.9597  
 Epoch 82213/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
 0.9591  
 Epoch 82214/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0282 - accuracy:  
 0.9594  
 Epoch 82215/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
 0.9600  
 Epoch 82216/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
 0.9598  
 Epoch 82217/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
 0.9602  
 Epoch 82218/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
 0.9601  
 Epoch 82219/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy:  
 0.9592  
 Epoch 82220/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0282 - accuracy:  
 0.9592  
 Epoch 82221/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:



0.9593  
Epoch 82222/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy: 0.9598  
Epoch 82223/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy: 0.9588  
Epoch 82224/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy: 0.9602  
Epoch 82225/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy: 0.9593  
Epoch 82226/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0287 - accuracy: 0.9609  
Epoch 82227/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy: 0.9594  
Epoch 82228/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy: 0.9598  
Epoch 82229/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy: 0.9595  
Epoch 82230/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0287 - accuracy: 0.9587  
Epoch 82231/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy: 0.9600  
Epoch 82232/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy: 0.9592  
Epoch 82233/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy: 0.9598  
Epoch 82234/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy: 0.9588  
Epoch 82235/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy: 0.9598  
Epoch 82236/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9600  
Epoch 82237/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0282 - accuracy:

```

0.9591
Epoch 82238/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:
0.9593
Epoch 82239/100000
2/2 [=====] - 0s 116ms/step - loss: 0.0284 - accuracy:
0.9592
Epoch 82240/100000
2/2 [=====] - 0s 117ms/step - loss: 0.0279 - accuracy:
0.9595
Epoch 82241/100000
2/2 [=====] - 0s 117ms/step - loss: 0.0287 - accuracy:
0.9593
Epoch 82242/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:
0.9600
Epoch 82243/100000
2/2 [=====] - 0s 118ms/step - loss: 0.0282 - accuracy:
0.9600
Epoch 82244/100000
2/2 [=====] - 0s 117ms/step - loss: 0.0287 - accuracy:
0.9597
Epoch 82245/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:
0.9592
Epoch 82246/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0281 - accuracy:
0.9598
Epoch 82247/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:
0.9598
Epoch 82248/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0282 - accuracy:
0.9587
Epoch 82249/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:
0.9604
Epoch 82250/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:
0.9588
Epoch 82251/100000
2/2 [=====] - 0s 118ms/step - loss: 0.0286 - accuracy:
0.9596
Epoch 82252/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0282 - accuracy:
0.9599
Epoch 82253/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0282 - accuracy:

```

0.9601  
 Epoch 82254/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy:  
 0.9602  
 Epoch 82255/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:  
 0.9596  
 Epoch 82256/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0282 - accuracy:  
 0.9601  
 Epoch 82257/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
 0.9600  
 Epoch 82258/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0282 - accuracy:  
 0.9598  
 Epoch 82259/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0283 - accuracy:  
 0.9595  
 Epoch 82260/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy:  
 0.9599  
 Epoch 82261/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
 0.9590  
 Epoch 82262/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy:  
 0.9595  
 Epoch 82263/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0291 - accuracy:  
 0.9600  
 Epoch 82264/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
 0.9588  
 Epoch 82265/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0294 - accuracy:  
 0.9605  
 Epoch 82266/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
 0.9600  
 Epoch 82267/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0300 - accuracy:  
 0.9590  
 Epoch 82268/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0290 - accuracy:  
 0.9601  
 Epoch 82269/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:

0.9594  
Epoch 82270/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
0.9597  
Epoch 82271/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9599  
Epoch 82272/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9589  
Epoch 82273/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9591  
Epoch 82274/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0290 - accuracy:  
0.9601  
Epoch 82275/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9592  
Epoch 82276/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9598  
Epoch 82277/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9588  
Epoch 82278/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0288 - accuracy:  
0.9583  
Epoch 82279/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9598  
Epoch 82280/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
0.9603  
Epoch 82281/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9602  
Epoch 82282/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9588  
Epoch 82283/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0287 - accuracy:  
0.9590  
Epoch 82284/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:  
0.9586  
Epoch 82285/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy:

0.9591  
Epoch 82286/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0292 - accuracy: 0.9584  
Epoch 82287/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy: 0.9599  
Epoch 82288/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy: 0.9591  
Epoch 82289/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy: 0.9591  
Epoch 82290/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0314 - accuracy: 0.9601  
Epoch 82291/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0312 - accuracy: 0.9595  
Epoch 82292/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9591  
Epoch 82293/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy: 0.9596  
Epoch 82294/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy: 0.9599  
Epoch 82295/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0291 - accuracy: 0.9597  
Epoch 82296/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy: 0.9591  
Epoch 82297/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy: 0.9603  
Epoch 82298/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy: 0.9597  
Epoch 82299/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9597  
Epoch 82300/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy: 0.9602  
Epoch 82301/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy:

0.9594  
Epoch 82302/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy: 0.9608  
Epoch 82303/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy: 0.9598  
Epoch 82304/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy: 0.9598  
Epoch 82305/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0289 - accuracy: 0.9598  
Epoch 82306/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy: 0.9588  
Epoch 82307/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy: 0.9604  
Epoch 82308/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy: 0.9594  
Epoch 82309/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0292 - accuracy: 0.9604  
Epoch 82310/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy: 0.9602  
Epoch 82311/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0288 - accuracy: 0.9595  
Epoch 82312/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy: 0.9594  
Epoch 82313/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy: 0.9591  
Epoch 82314/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy: 0.9595  
Epoch 82315/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy: 0.9600  
Epoch 82316/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy: 0.9594  
Epoch 82317/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy:

0.9598  
 Epoch 82318/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0282 - accuracy:  
 0.9599  
 Epoch 82319/100000  
 2/2 [=====] - 0s 120ms/step - loss: 0.0289 - accuracy:  
 0.9606  
 Epoch 82320/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
 0.9595  
 Epoch 82321/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
 0.9590  
 Epoch 82322/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
 0.9600  
 Epoch 82323/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0284 - accuracy:  
 0.9599  
 Epoch 82324/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0282 - accuracy:  
 0.9595  
 Epoch 82325/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0290 - accuracy:  
 0.9595  
 Epoch 82326/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0282 - accuracy:  
 0.9591  
 Epoch 82327/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0283 - accuracy:  
 0.9590  
 Epoch 82328/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
 0.9605  
 Epoch 82329/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
 0.9597  
 Epoch 82330/100000  
 2/2 [=====] - 0s 120ms/step - loss: 0.0281 - accuracy:  
 0.9589  
 Epoch 82331/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy:  
 0.9600  
 Epoch 82332/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
 0.9590  
 Epoch 82333/100000  
 2/2 [=====] - 0s 121ms/step - loss: 0.0284 - accuracy:

```

0.9597
Epoch 82334/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:
0.9592
Epoch 82335/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:
0.9595
Epoch 82336/100000
2/2 [=====] - 0s 118ms/step - loss: 0.0284 - accuracy:
0.9595
Epoch 82337/100000
2/2 [=====] - 0s 113ms/step - loss: 0.0282 - accuracy:
0.9596
Epoch 82338/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0280 - accuracy:
0.9591
Epoch 82339/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0281 - accuracy:
0.9597
Epoch 82340/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:
0.9592
Epoch 82341/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:
0.9588
Epoch 82342/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:
0.9604
Epoch 82343/100000
2/2 [=====] - 0s 117ms/step - loss: 0.0292 - accuracy:
0.9603
Epoch 82344/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:
0.9594
Epoch 82345/100000
2/2 [=====] - 0s 118ms/step - loss: 0.0290 - accuracy:
0.9591
Epoch 82346/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:
0.9594
Epoch 82347/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:
0.9593
Epoch 82348/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:
0.9606
Epoch 82349/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:

```



0.9595  
 Epoch 82350/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy:  
 0.9591  
 Epoch 82351/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy:  
 0.9589  
 Epoch 82352/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0286 - accuracy:  
 0.9594  
 Epoch 82353/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
 0.9597  
 Epoch 82354/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy:  
 0.9593  
 Epoch 82355/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
 0.9604  
 Epoch 82356/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0282 - accuracy:  
 0.9587  
 Epoch 82357/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy:  
 0.9592  
 Epoch 82358/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy:  
 0.9598  
 Epoch 82359/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
 0.9593  
 Epoch 82360/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy:  
 0.9599  
 Epoch 82361/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
 0.9591  
 Epoch 82362/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0283 - accuracy:  
 0.9599  
 Epoch 82363/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0284 - accuracy:  
 0.9605  
 Epoch 82364/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
 0.9589  
 Epoch 82365/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:

```

0.9589
Epoch 82366/100000
2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy:
0.9600
Epoch 82367/100000
2/2 [=====] - 0s 118ms/step - loss: 0.0290 - accuracy:
0.9595
Epoch 82919/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:
0.9596
Epoch 82920/100000
2/2 [=====] - 0s 117ms/step - loss: 0.0296 - accuracy:
0.9609
Epoch 82921/100000
2/2 [=====] - 0s 117ms/step - loss: 0.0290 - accuracy:
0.9591
Epoch 82922/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:
0.9592
Epoch 82923/100000
2/2 [=====] - 0s 113ms/step - loss: 0.0293 - accuracy:
0.9603
Epoch 82924/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:
0.9598
Epoch 82925/100000
2/2 [=====] - 0s 116ms/step - loss: 0.0306 - accuracy:
0.9590
Epoch 82926/100000
2/2 [=====] - 0s 116ms/step - loss: 0.0311 - accuracy:
0.9600
Epoch 82927/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0305 - accuracy:
0.9591
Epoch 82928/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:
0.9603
Epoch 82929/100000
2/2 [=====] - 0s 116ms/step - loss: 0.0305 - accuracy:
0.9599
Epoch 82930/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:
0.9590
Epoch 82931/100000
2/2 [=====] - 0s 116ms/step - loss: 0.0310 - accuracy:
0.9594
Epoch 82932/100000
2/2 [=====] - 0s 119ms/step - loss: 0.0306 - accuracy:

```

0.9603  
Epoch 82933/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy: 0.9600  
Epoch 82934/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy: 0.9598  
Epoch 82935/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9589  
Epoch 82936/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy: 0.9595  
Epoch 82937/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy: 0.9600  
Epoch 82938/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy: 0.9597  
Epoch 82939/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0284 - accuracy: 0.9586  
Epoch 82940/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy: 0.9597  
Epoch 82941/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy: 0.9606  
Epoch 82942/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy: 0.9602  
Epoch 82943/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0290 - accuracy: 0.9605  
Epoch 82944/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0283 - accuracy: 0.9588  
Epoch 82945/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy: 0.9597  
Epoch 82946/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9604  
Epoch 82947/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0283 - accuracy: 0.9600  
Epoch 82948/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:

0.9602  
Epoch 82949/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
0.9601  
Epoch 82950/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy:  
0.9602  
Epoch 82951/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9599  
Epoch 82952/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0287 - accuracy:  
0.9597  
Epoch 82953/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0285 - accuracy:  
0.9596  
Epoch 82954/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0282 - accuracy:  
0.9608  
Epoch 82955/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
0.9595  
Epoch 82956/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy:  
0.9598  
Epoch 82957/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:  
0.9603  
Epoch 82958/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
0.9600  
Epoch 82959/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:  
0.9594  
Epoch 82960/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
0.9600  
Epoch 82961/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0281 - accuracy:  
0.9595  
Epoch 82962/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy:  
0.9597  
Epoch 82963/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0286 - accuracy:  
0.9595  
Epoch 82964/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:

0.9605  
 Epoch 82965/100000  
 2/2 [=====] - 0s 113ms/step - loss: 0.0288 - accuracy:  
 0.9609  
 Epoch 82966/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
 0.9598  
 Epoch 82967/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
 0.9587  
 Epoch 82968/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
 0.9595  
 Epoch 82969/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy:  
 0.9605  
 Epoch 82970/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy:  
 0.9596  
 Epoch 82971/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
 0.9598  
 Epoch 82972/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy:  
 0.9594  
 Epoch 82973/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy:  
 0.9591  
 Epoch 82974/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
 0.9584  
 Epoch 82975/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy:  
 0.9589  
 Epoch 82976/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0291 - accuracy:  
 0.9602  
 Epoch 82977/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0287 - accuracy:  
 0.9595  
 Epoch 82978/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
 0.9596  
 Epoch 82979/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0290 - accuracy:  
 0.9608  
 Epoch 82980/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0293 - accuracy:

0.9594  
 Epoch 82981/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0292 - accuracy:  
 0.9597  
 Epoch 82982/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
 0.9602  
 Epoch 82983/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
 0.9593  
 Epoch 82984/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
 0.9600  
 Epoch 82985/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
 0.9590  
 Epoch 82986/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
 0.9604  
 Epoch 82987/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0291 - accuracy:  
 0.9597  
 Epoch 82988/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
 0.9603  
 Epoch 82989/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
 0.9603  
 Epoch 82990/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0286 - accuracy:  
 0.9597  
 Epoch 82991/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0283 - accuracy:  
 0.9599  
 Epoch 82992/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
 0.9601  
 Epoch 82993/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy:  
 0.9604  
 Epoch 82994/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
 0.9593  
 Epoch 82995/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0287 - accuracy:  
 0.9596  
 Epoch 82996/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy:

0.9597  
Epoch 82997/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy:  
0.9604  
Epoch 82998/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
0.9592  
Epoch 82999/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0283 - accuracy:  
0.9601  
Epoch 83000/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy:  
0.9603  
Epoch 83001/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0281 - accuracy:  
0.9604  
Epoch 83002/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9597  
Epoch 83003/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:  
0.9600  
Epoch 83004/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0284 - accuracy:  
0.9595  
Epoch 83005/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0281 - accuracy:  
0.9592  
Epoch 83006/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9598  
Epoch 83007/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy:  
0.9591  
Epoch 83008/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
0.9596  
Epoch 83009/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
0.9597  
Epoch 83010/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:  
0.9589  
Epoch 83011/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
0.9603  
Epoch 83012/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:

0.9583  
Epoch 83013/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy:  
0.9601  
Epoch 83014/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0282 - accuracy:  
0.9594  
Epoch 83015/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0282 - accuracy:  
0.9590  
Epoch 83016/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
0.9599  
Epoch 83017/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy:  
0.9594  
Epoch 83018/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy:  
0.9599  
Epoch 83019/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0282 - accuracy:  
0.9591  
Epoch 83020/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
0.9598  
Epoch 83021/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
0.9593  
Epoch 83022/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9587  
Epoch 83023/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0300 - accuracy:  
0.9599  
Epoch 83024/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy:  
0.9599  
Epoch 83025/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9604  
Epoch 83026/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
0.9588  
Epoch 83027/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
0.9584  
Epoch 83028/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0291 - accuracy:



0.9602  
 Epoch 83029/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
 0.9594  
 Epoch 83030/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
 0.9589  
 Epoch 83031/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:  
 0.9589  
 Epoch 83032/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
 0.9599  
 Epoch 83033/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0293 - accuracy:  
 0.9595  
 Epoch 83034/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
 0.9600  
 Epoch 83035/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0290 - accuracy:  
 0.9598  
 Epoch 83036/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
 0.9592  
 Epoch 83037/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
 0.9592  
 Epoch 83038/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
 0.9592  
 Epoch 83039/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
 0.9600  
 Epoch 83040/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
 0.9599  
 Epoch 83041/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy:  
 0.9598  
 Epoch 83042/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
 0.9598  
 Epoch 83043/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
 0.9602  
 Epoch 83044/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0289 - accuracy:

```

0.9590
Epoch 83045/100000
2/2 [=====] - 0s 121ms/step - loss: 0.0289 - accuracy:
0.9593
Epoch 83046/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:
0.9589
Epoch 83047/100000
2/2 [=====] - 0s 123ms/step - loss: 0.0287 - accuracy:
0.9594
Epoch 83048/100000
2/2 [=====] - 0s 117ms/step - loss: 0.0282 - accuracy:
0.9596
Epoch 83049/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:
0.9594
Epoch 83050/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:
0.9594
Epoch 83051/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:
0.9598
Epoch 83052/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:
0.9592
Epoch 83053/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0281 - accuracy:
0.9592
Epoch 83054/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:
0.9598
Epoch 83055/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:
0.9587
Epoch 83056/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:
0.9581
Epoch 83057/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:
0.9598
Epoch 83058/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:
0.9603
Epoch 83059/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy:
0.9590
Epoch 83060/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:

```

0.9595  
Epoch 83061/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy: 0.9604  
Epoch 83062/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy: 0.9604  
Epoch 83063/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0287 - accuracy: 0.9586  
Epoch 83064/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0288 - accuracy: 0.9594  
Epoch 83065/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy: 0.9606  
Epoch 83066/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0287 - accuracy: 0.9600  
Epoch 83067/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0285 - accuracy: 0.9593  
Epoch 83068/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0284 - accuracy: 0.9594  
Epoch 83069/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9586  
Epoch 83070/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy: 0.9596  
Epoch 83071/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy: 0.9590  
Epoch 83072/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy: 0.9599  
Epoch 83073/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy: 0.9594  
Epoch 83074/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0293 - accuracy: 0.9593  
Epoch 83075/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy: 0.9591  
Epoch 83076/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0321 - accuracy:

0.9584  
 Epoch 83077/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
 0.9601  
 Epoch 83078/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
 0.9603  
 Epoch 83079/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
 0.9592  
 Epoch 83080/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
 0.9596  
 Epoch 83081/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
 0.9590  
 Epoch 83082/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
 0.9597  
 Epoch 83083/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
 0.9603  
 Epoch 83084/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
 0.9599  
 Epoch 83085/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy:  
 0.9599  
 Epoch 83086/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
 0.9598  
 Epoch 83087/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
 0.9589  
 Epoch 83088/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
 0.9610  
 Epoch 83089/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0291 - accuracy:  
 0.9591  
 Epoch 83090/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
 0.9599  
 Epoch 83091/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy:  
 0.9595  
 Epoch 83092/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy:

```

0.9598
Epoch 83093/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:
0.9602
Epoch 83094/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:
0.9592
Epoch 83095/100000
2/2 [=====] - 0s 116ms/step - loss: 0.0290 - accuracy:
0.9606
Epoch 83096/100000
2/2 [=====] - 0s 119ms/step - loss: 0.0290 - accuracy:
0.9602
Epoch 83097/100000
2/2 [=====] - 0s 118ms/step - loss: 0.0302 - accuracy:
0.9600
Epoch 83098/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:
0.9592
Epoch 83099/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:
0.9594
Epoch 83100/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:
0.9600
Epoch 83101/100000
2/2 [=====] - 0s 117ms/step - loss: 0.0291 - accuracy:
0.9598
Epoch 83102/100000
2/2 [=====] - 0s 117ms/step - loss: 0.0287 - accuracy:
0.9590
Epoch 83103/100000
2/2 [=====] - 0s 116ms/step - loss: 0.0290 - accuracy:
0.9589
Epoch 83104/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:
0.9595
Epoch 83105/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:
0.9603
Epoch 83106/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:
0.9595
Epoch 83107/100000
2/2 [=====] - 0s 119ms/step - loss: 0.0285 - accuracy:
0.9593
Epoch 83108/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:

```

0.9597  
Epoch 83109/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:  
0.9594  
Epoch 83110/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0297 - accuracy:  
0.9594  
Epoch 83111/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9598  
Epoch 83112/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9591  
Epoch 83113/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0311 - accuracy:  
0.9595  
Epoch 83114/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0295 - accuracy:  
0.9601  
Epoch 83115/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9603  
Epoch 83116/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy:  
0.9600  
Epoch 83117/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy:  
0.9596  
Epoch 83118/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9596  
Epoch 83119/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
0.9604  
Epoch 83120/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
0.9596  
Epoch 83121/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
0.9593  
Epoch 83122/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
0.9587  
Epoch 83123/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy:  
0.9592  
Epoch 83124/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0291 - accuracy:

0.9602  
 Epoch 83125/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy:  
 0.9599  
 Epoch 83126/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
 0.9601  
 Epoch 83127/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy:  
 0.9597  
 Epoch 83128/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy:  
 0.9593  
 Epoch 83129/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:  
 0.9597  
 Epoch 83130/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
 0.9590  
 Epoch 83131/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0296 - accuracy:  
 0.9608  
 Epoch 83132/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy:  
 0.9593  
 Epoch 83133/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
 0.9595  
 Epoch 83134/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
 0.9585  
 Epoch 83135/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
 0.9597  
 Epoch 83136/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0295 - accuracy:  
 0.9599  
 Epoch 83137/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0293 - accuracy:  
 0.9600  
 Epoch 83138/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
 0.9594  
 Epoch 83139/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0291 - accuracy:  
 0.9596  
 Epoch 83694/100000  
 2/2 [=====] - 0s 113ms/step - loss: 0.0288 - accuracy:

0.9606  
Epoch 83695/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9590  
Epoch 83696/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9587  
Epoch 83697/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0288 - accuracy:  
0.9603  
Epoch 83698/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9598  
Epoch 83699/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9599  
Epoch 83700/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy:  
0.9591  
Epoch 83701/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
0.9593  
Epoch 83702/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy:  
0.9594  
Epoch 83703/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0298 - accuracy:  
0.9598  
Epoch 83704/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
0.9589  
Epoch 83705/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
0.9599  
Epoch 83706/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9595  
Epoch 83707/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
0.9598  
Epoch 83708/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
0.9588  
Epoch 83709/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0290 - accuracy:  
0.9589  
Epoch 83710/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy:



```

0.9595
Epoch 83711/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:
0.9591
Epoch 83712/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:
0.9597
Epoch 83713/100000
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy:
0.9601
Epoch 83714/100000
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy:
0.9599
Epoch 83715/100000
2/2 [=====] - 0s 118ms/step - loss: 0.0301 - accuracy:
0.9584
Epoch 83716/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:
0.9598
Epoch 83717/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:
0.9595
Epoch 83718/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:
0.9604
Epoch 83719/100000
2/2 [=====] - 0s 118ms/step - loss: 0.0298 - accuracy:
0.9601
Epoch 83720/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:
0.9601
Epoch 83721/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:
0.9591
Epoch 83722/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:
0.9594
Epoch 83723/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:
0.9599
Epoch 83724/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:
0.9594
Epoch 83725/100000
2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy:
0.9592
Epoch 83726/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy:

```

```

0.9591
Epoch 83727/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:
0.9590
Epoch 83728/100000
2/2 [=====] - 0s 117ms/step - loss: 0.0291 - accuracy:
0.9602
Epoch 83729/100000
2/2 [=====] - 0s 117ms/step - loss: 0.0287 - accuracy:
0.9605
Epoch 83730/100000
2/2 [=====] - 0s 117ms/step - loss: 0.0287 - accuracy:
0.9599
Epoch 83731/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:
0.9610
Epoch 83732/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:
0.9595
Epoch 83733/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:
0.9601
Epoch 83734/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:
0.9597
Epoch 83735/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0281 - accuracy:
0.9593
Epoch 83736/100000
2/2 [=====] - 0s 116ms/step - loss: 0.0282 - accuracy:
0.9597
Epoch 83737/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:
0.9596
Epoch 83738/100000
2/2 [=====] - 0s 119ms/step - loss: 0.0288 - accuracy:
0.9597
Epoch 83739/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:
0.9601
Epoch 83740/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:
0.9599
Epoch 83741/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:
0.9600
Epoch 83742/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:

```

0.9602  
 Epoch 83743/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
 0.9593  
 Epoch 83744/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
 0.9601  
 Epoch 83745/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0293 - accuracy:  
 0.9603  
 Epoch 83746/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0284 - accuracy:  
 0.9599  
 Epoch 83747/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0286 - accuracy:  
 0.9601  
 Epoch 83748/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
 0.9598  
 Epoch 83749/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
 0.9599  
 Epoch 83750/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
 0.9597  
 Epoch 83751/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0292 - accuracy:  
 0.9597  
 Epoch 83752/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
 0.9593  
 Epoch 83753/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
 0.9601  
 Epoch 83754/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy:  
 0.9596  
 Epoch 83755/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy:  
 0.9593  
 Epoch 83756/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0290 - accuracy:  
 0.9591  
 Epoch 83757/100000  
 2/2 [=====] - 0s 120ms/step - loss: 0.0289 - accuracy:  
 0.9600  
 Epoch 83758/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:

```

0.9597
Epoch 83759/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy:
0.9589
Epoch 83760/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:
0.9591
Epoch 83761/100000
2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy:
0.9608
Epoch 83762/100000
2/2 [=====] - 0s 120ms/step - loss: 0.0286 - accuracy:
0.9603
Epoch 83763/100000
2/2 [=====] - 0s 117ms/step - loss: 0.0285 - accuracy:
0.9603
Epoch 83764/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:
0.9602
Epoch 83765/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:
0.9597
Epoch 83766/100000
2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy:
0.9592
Epoch 83767/100000
2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy:
0.9590
Epoch 83768/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:
0.9600
Epoch 83769/100000
2/2 [=====] - 0s 118ms/step - loss: 0.0282 - accuracy:
0.9595
Epoch 83770/100000
2/2 [=====] - 0s 116ms/step - loss: 0.0281 - accuracy:
0.9597
Epoch 83771/100000
2/2 [=====] - 0s 117ms/step - loss: 0.0286 - accuracy:
0.9601
Epoch 83772/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:
0.9591
Epoch 83773/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:
0.9597
Epoch 83774/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:

```

0.9601  
Epoch 83775/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
0.9595  
Epoch 83776/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0280 - accuracy:  
0.9586  
Epoch 83777/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
0.9596  
Epoch 83778/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
0.9595  
Epoch 83779/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9593  
Epoch 83780/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0283 - accuracy:  
0.9592  
Epoch 83781/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy:  
0.9599  
Epoch 83782/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy:  
0.9601  
Epoch 83783/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
0.9588  
Epoch 83784/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
0.9600  
Epoch 83785/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
0.9592  
Epoch 83786/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:  
0.9597  
Epoch 83787/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy:  
0.9590  
Epoch 83788/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy:  
0.9593  
Epoch 83789/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0287 - accuracy:  
0.9592  
Epoch 83790/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0284 - accuracy:

0.9598  
Epoch 83791/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0287 - accuracy:  
0.9604  
Epoch 83792/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
0.9598  
Epoch 83793/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0282 - accuracy:  
0.9586  
Epoch 83794/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0285 - accuracy:  
0.9589  
Epoch 83795/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9596  
Epoch 83796/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0288 - accuracy:  
0.9597  
Epoch 83797/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9603  
Epoch 83798/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy:  
0.9601  
Epoch 83799/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy:  
0.9591  
Epoch 83800/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9602  
Epoch 83801/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
0.9594  
Epoch 83802/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy:  
0.9594  
Epoch 83803/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9596  
Epoch 83804/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
0.9594  
Epoch 83805/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0295 - accuracy:  
0.9594  
Epoch 83806/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:

0.9594  
 Epoch 83807/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
 0.9597  
 Epoch 83808/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy:  
 0.9590  
 Epoch 83809/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0285 - accuracy:  
 0.9588  
 Epoch 83810/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
 0.9603  
 Epoch 83811/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
 0.9592  
 Epoch 83812/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy:  
 0.9596  
 Epoch 83813/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0288 - accuracy:  
 0.9606  
 Epoch 83814/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0286 - accuracy:  
 0.9590  
 Epoch 83815/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy:  
 0.9585  
 Epoch 83816/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
 0.9590  
 Epoch 83817/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
 0.9597  
 Epoch 83818/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy:  
 0.9603  
 Epoch 83819/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
 0.9601  
 Epoch 83820/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
 0.9599  
 Epoch 83821/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
 0.9595  
 Epoch 83822/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0282 - accuracy:

```

0.9590
Epoch 83823/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:
0.9598
Epoch 83824/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:
0.9591
Epoch 83825/100000
2/2 [=====] - 0s 113ms/step - loss: 0.0287 - accuracy:
0.9593
Epoch 83826/100000
2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy:
0.9600
Epoch 83827/100000
2/2 [=====] - 0s 118ms/step - loss: 0.0283 - accuracy:
0.9598
Epoch 83828/100000
2/2 [=====] - 0s 116ms/step - loss: 0.0283 - accuracy:
0.9602
Epoch 83829/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:
0.9587
Epoch 83830/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:
0.9593
Epoch 83831/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:
0.9597
Epoch 83832/100000
2/2 [=====] - 0s 117ms/step - loss: 0.0281 - accuracy:
0.9593
Epoch 83833/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:
0.9606
Epoch 83834/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:
0.9601
Epoch 83835/100000
2/2 [=====] - 0s 118ms/step - loss: 0.0286 - accuracy:
0.9596
Epoch 83836/100000
2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy:
0.9600
Epoch 83837/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:
0.9597
Epoch 83838/100000
2/2 [=====] - 0s 116ms/step - loss: 0.0281 - accuracy:

```



```

0.9593
Epoch 83839/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:
0.9585
Epoch 83840/100000
2/2 [=====] - 0s 117ms/step - loss: 0.0287 - accuracy:
0.9593
Epoch 83841/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:
0.9595
Epoch 83842/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:
0.9595
Epoch 83843/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:
0.9594
Epoch 83844/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:
0.9605
Epoch 83845/100000
2/2 [=====] - 0s 121ms/step - loss: 0.0285 - accuracy:
0.9593
Epoch 83846/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:
0.9590
Epoch 83847/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:
0.9598
Epoch 83848/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:
0.9596
Epoch 83849/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:
0.9594
Epoch 83850/100000
2/2 [=====] - 0s 116ms/step - loss: 0.0290 - accuracy:
0.9591
Epoch 83851/100000
2/2 [=====] - 0s 119ms/step - loss: 0.0288 - accuracy:
0.9604
Epoch 83852/100000
2/2 [=====] - 0s 117ms/step - loss: 0.0291 - accuracy:
0.9608
Epoch 83853/100000
2/2 [=====] - 0s 119ms/step - loss: 0.0283 - accuracy:
0.9600
Epoch 83854/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:

```

0.9604  
 Epoch 83855/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
 0.9586  
 Epoch 83856/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
 0.9592  
 Epoch 83857/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0290 - accuracy:  
 0.9599  
 Epoch 83858/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy:  
 0.9607  
 Epoch 83859/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
 0.9596  
 Epoch 83860/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
 0.9592  
 Epoch 83861/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0286 - accuracy:  
 0.9591  
 Epoch 83862/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
 0.9592  
 Epoch 83863/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0291 - accuracy:  
 0.9597  
 Epoch 83864/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0295 - accuracy:  
 0.9601  
 Epoch 83865/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
 0.9602  
 Epoch 83866/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy:  
 0.9597  
 Epoch 83867/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0285 - accuracy:  
 0.9604  
 Epoch 83868/100000  
 2/2 [=====] - 0s 113ms/step - loss: 0.0291 - accuracy:  
 0.9591  
 Epoch 83869/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0280 - accuracy:  
 0.9593  
 Epoch 83870/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:

0.9602  
Epoch 83871/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy: 0.9591  
Epoch 83872/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy: 0.9596  
Epoch 83873/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0282 - accuracy: 0.9595  
Epoch 83874/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy: 0.9597  
Epoch 83875/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9594  
Epoch 83876/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0293 - accuracy: 0.9604  
Epoch 83877/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0291 - accuracy: 0.9589  
Epoch 83878/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy: 0.9599  
Epoch 83879/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy: 0.9594  
Epoch 83880/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy: 0.9591  
Epoch 83881/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0281 - accuracy: 0.9595  
Epoch 83882/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy: 0.9596  
Epoch 83883/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy: 0.9599  
Epoch 83884/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy: 0.9600  
Epoch 83885/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy: 0.9598  
Epoch 83886/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:

```

0.9596
Epoch 83887/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:
0.9602
Epoch 83888/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:
0.9598
Epoch 83889/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:
0.9596
Epoch 83890/100000
2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy:
0.9592
Epoch 83891/100000
2/2 [=====] - 0s 119ms/step - loss: 0.0292 - accuracy:
0.9598
Epoch 83892/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:
0.9593
Epoch 83893/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:
0.9588
Epoch 83894/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:
0.9599
Epoch 83895/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:
0.9596
Epoch 83896/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:
0.9591
Epoch 83897/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:
0.9603
Epoch 83898/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:
0.9603
Epoch 83899/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:
0.9592
Epoch 83900/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:
0.9590
Epoch 83901/100000
2/2 [=====] - 0s 113ms/step - loss: 0.0298 - accuracy:
0.9599
Epoch 83902/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy:

```

0.9591  
 Epoch 83903/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
 0.9595  
 Epoch 83904/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
 0.9591  
 Epoch 83905/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0290 - accuracy:  
 0.9614  
 Epoch 83906/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0290 - accuracy:  
 0.9607  
 Epoch 83907/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
 0.9604  
 Epoch 83908/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
 0.9604  
 Epoch 83909/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy:  
 0.9605  
 Epoch 83910/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy:  
 0.9597  
 Epoch 83911/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy:  
 0.9596  
 Epoch 83912/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy:  
 0.9603  
 Epoch 83913/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
 0.9594  
 2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
 0.9593  
 Epoch 84458/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0289 - accuracy:  
 0.9604  
 Epoch 84459/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
 0.9587  
 Epoch 84460/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
 0.9599  
 Epoch 84461/100000  
 2/2 [=====] - 0s 123ms/step - loss: 0.0295 - accuracy:  
 0.9597

Epoch 84462/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0293 - accuracy: 0.9597

Epoch 84463/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy: 0.9590

Epoch 84464/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy: 0.9603

Epoch 84465/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy: 0.9598

Epoch 84466/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0289 - accuracy: 0.9602

Epoch 84467/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0292 - accuracy: 0.9599

Epoch 84468/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy: 0.9586

Epoch 84469/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0284 - accuracy: 0.9590

Epoch 84470/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy: 0.9598

Epoch 84471/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9595

Epoch 84472/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0288 - accuracy: 0.9594

Epoch 84473/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy: 0.9598

Epoch 84474/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy: 0.9597

Epoch 84475/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy: 0.9591

Epoch 84476/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy: 0.9606

Epoch 84477/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9596

Epoch 84478/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy: 0.9591

Epoch 84479/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0292 - accuracy: 0.9600

Epoch 84480/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9593

Epoch 84481/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0293 - accuracy: 0.9601

Epoch 84482/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy: 0.9590

Epoch 84483/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0281 - accuracy: 0.9588

Epoch 84484/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy: 0.9593

Epoch 84485/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0283 - accuracy: 0.9592

Epoch 84486/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9593

Epoch 84487/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0286 - accuracy: 0.9595

Epoch 84488/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy: 0.9600

Epoch 84489/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy: 0.9587

Epoch 84490/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9594

Epoch 84491/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy: 0.9596

Epoch 84492/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy: 0.9594

Epoch 84493/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy: 0.9596

Epoch 84494/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy: 0.9595  
Epoch 84495/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0284 - accuracy: 0.9596  
Epoch 84496/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy: 0.9596  
Epoch 84497/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0285 - accuracy: 0.9594  
Epoch 84498/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy: 0.9598  
Epoch 84499/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy: 0.9585  
Epoch 84500/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9600  
Epoch 84501/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy: 0.9598  
Epoch 84502/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy: 0.9590  
Epoch 84503/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy: 0.9595  
Epoch 84504/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy: 0.9602  
Epoch 84505/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy: 0.9592  
Epoch 84506/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0287 - accuracy: 0.9598  
Epoch 84507/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0281 - accuracy: 0.9593  
Epoch 84508/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0290 - accuracy: 0.9597  
Epoch 84509/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy: 0.9595



Epoch 84510/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0289 - accuracy:  
0.9605  
Epoch 84511/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
0.9609  
Epoch 84512/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0282 - accuracy:  
0.9598  
Epoch 84513/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
0.9603  
Epoch 84514/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy:  
0.9593  
Epoch 84515/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy:  
0.9593  
Epoch 84516/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
0.9598  
Epoch 84517/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9605  
Epoch 84518/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0281 - accuracy:  
0.9596  
Epoch 84519/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0284 - accuracy:  
0.9592  
Epoch 84520/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0282 - accuracy:  
0.9597  
Epoch 84521/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0285 - accuracy:  
0.9598  
Epoch 84522/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0287 - accuracy:  
0.9587  
Epoch 84523/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0287 - accuracy:  
0.9596  
Epoch 84524/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
0.9596  
Epoch 84525/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy:  
0.9603

Epoch 84526/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0292 - accuracy:  
0.9602  
Epoch 84527/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy:  
0.9603  
Epoch 84528/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0288 - accuracy:  
0.9594  
Epoch 84529/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0286 - accuracy:  
0.9599  
Epoch 84530/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0286 - accuracy:  
0.9601  
Epoch 84531/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
0.9594  
Epoch 84532/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
0.9589  
Epoch 84533/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy:  
0.9595  
Epoch 84534/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0292 - accuracy:  
0.9590  
Epoch 84535/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy:  
0.9597  
Epoch 84536/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy:  
0.9594  
Epoch 84537/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9590  
Epoch 84538/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9588  
Epoch 84539/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
0.9593  
Epoch 84540/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9593  
Epoch 84541/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9590

Epoch 84542/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy: 0.9601

Epoch 84543/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9598

Epoch 84544/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0297 - accuracy: 0.9598

Epoch 84545/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy: 0.9595

Epoch 84546/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9604

Epoch 84547/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy: 0.9594

Epoch 84548/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy: 0.9587

Epoch 84549/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9598

Epoch 84550/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0314 - accuracy: 0.9590

Epoch 84551/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0316 - accuracy: 0.9603

Epoch 84552/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy: 0.9590

Epoch 84553/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0312 - accuracy: 0.9598

Epoch 84554/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy: 0.9606

Epoch 84555/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy: 0.9593

Epoch 84556/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy: 0.9605

Epoch 84557/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy: 0.9594

Epoch 84558/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
0.9602  
Epoch 84559/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
0.9594  
Epoch 84560/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9603  
Epoch 84561/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9594  
Epoch 84562/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
0.9592  
Epoch 84563/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0284 - accuracy:  
0.9597  
Epoch 84564/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9601  
Epoch 84565/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0282 - accuracy:  
0.9602  
Epoch 84566/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0288 - accuracy:  
0.9602  
Epoch 84567/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0286 - accuracy:  
0.9600  
Epoch 84568/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0290 - accuracy:  
0.9592  
Epoch 84569/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9599  
Epoch 84570/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9605  
Epoch 84571/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy:  
0.9589  
Epoch 84572/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0291 - accuracy:  
0.9595  
Epoch 84573/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0288 - accuracy:  
0.9596

Epoch 84574/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0282 - accuracy: 0.9590  
Epoch 84575/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy: 0.9596  
Epoch 84576/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0282 - accuracy: 0.9590  
Epoch 84577/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0282 - accuracy: 0.9597  
Epoch 84578/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy: 0.9602  
Epoch 84579/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0284 - accuracy: 0.9587  
Epoch 84580/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy: 0.9589  
Epoch 84581/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0286 - accuracy: 0.9587  
Epoch 84582/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy: 0.9594  
Epoch 84583/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy: 0.9591  
Epoch 84584/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy: 0.9593  
Epoch 84585/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy: 0.9591  
Epoch 84586/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy: 0.9593  
Epoch 84587/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy: 0.9597  
Epoch 84588/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy: 0.9595  
Epoch 84589/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0286 - accuracy: 0.9596

Epoch 84590/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0286 - accuracy: 0.9600

Epoch 84591/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy: 0.9586

Epoch 84592/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0293 - accuracy: 0.9607

Epoch 84593/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy: 0.9600

Epoch 84594/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy: 0.9608

Epoch 84595/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy: 0.9602

Epoch 84596/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0290 - accuracy: 0.9598

Epoch 84597/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy: 0.9596

Epoch 84598/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy: 0.9591

Epoch 84599/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy: 0.9598

Epoch 84600/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy: 0.9596

Epoch 84601/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy: 0.9583

Epoch 84602/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0290 - accuracy: 0.9595

Epoch 84603/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy: 0.9596

Epoch 84604/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy: 0.9599

Epoch 84605/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy: 0.9596

Epoch 84606/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9595

Epoch 84607/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0283 - accuracy: 0.9595

Epoch 84608/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0282 - accuracy: 0.9591

Epoch 84609/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy: 0.9596

Epoch 84610/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0281 - accuracy: 0.9595

Epoch 84611/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0280 - accuracy: 0.9590

Epoch 84612/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy: 0.9591

Epoch 84613/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0281 - accuracy: 0.9584

Epoch 84614/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy: 0.9586

Epoch 84615/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0287 - accuracy: 0.9597

Epoch 84616/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0282 - accuracy: 0.9595

Epoch 84617/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9591

Epoch 84618/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy: 0.9591

Epoch 84619/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy: 0.9606

Epoch 84620/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy: 0.9601

Epoch 84621/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy: 0.9609

Epoch 84622/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0291 - accuracy: 0.9600  
Epoch 84623/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0291 - accuracy: 0.9590  
Epoch 84624/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy: 0.9587  
Epoch 84625/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy: 0.9598  
Epoch 84626/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy: 0.9603  
Epoch 84627/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy: 0.9597  
Epoch 84628/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy: 0.9596  
Epoch 84629/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy: 0.9589  
Epoch 84630/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0291 - accuracy: 0.9592  
Epoch 84631/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9594  
Epoch 84632/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0292 - accuracy: 0.9601  
Epoch 84633/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy: 0.9595  
Epoch 84634/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy: 0.9593  
Epoch 84635/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy: 0.9601  
Epoch 84636/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy: 0.9596  
Epoch 84637/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy: 0.9607



Epoch 84638/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy:  
0.9600

Epoch 84639/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
0.9602

Epoch 84640/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
0.9594

Epoch 84641/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0288 - accuracy:  
0.9599

Epoch 84642/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
0.9585

Epoch 84643/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
0.9599

Epoch 84644/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:  
0.9598

Epoch 84645/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy:  
0.9597

Epoch 84646/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
0.9598

Epoch 84647/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0288 - accuracy:  
0.9596

Epoch 84648/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0288 - accuracy:  
0.9602

Epoch 84649/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy:  
0.9590

Epoch 84650/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0288 - accuracy:  
0.9588

Epoch 84651/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:  
0.9595

Epoch 84652/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0292 - accuracy:  
0.9601

Epoch 84653/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
0.9602

Epoch 84654/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0284 - accuracy: 0.9588

Epoch 84655/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0287 - accuracy: 0.9596

Epoch 84656/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy: 0.9595

Epoch 84657/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy: 0.9597

Epoch 84658/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy: 0.9606

Epoch 84659/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy: 0.9592

Epoch 84660/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9605

Epoch 84661/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy: 0.9600

Epoch 84662/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy: 0.9600

Epoch 84663/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy: 0.9596

Epoch 84664/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9588

Epoch 84665/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy: 0.9591

Epoch 84666/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy: 0.9598

Epoch 84667/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy: 0.9587

Epoch 84668/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0299 - accuracy: 0.9590

Epoch 84669/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0293 - accuracy: 0.9603

Epoch 84670/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0287 - accuracy:  
0.9606  
Epoch 84671/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0283 - accuracy:  
0.9591  
Epoch 84672/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0288 - accuracy:  
0.9590  
Epoch 84673/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
0.9590  
Epoch 84674/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy:  
0.9606  
2/2 [=====] - 0s 118ms/step - loss: 0.0286 - accuracy:  
0.9599  
Epoch 85221/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy:  
0.9601  
Epoch 85222/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9595  
Epoch 85223/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
0.9589  
Epoch 85224/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0291 - accuracy:  
0.9601  
Epoch 85225/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9607  
Epoch 85226/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:  
0.9585  
Epoch 85227/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9594  
Epoch 85228/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9597  
Epoch 85229/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy:  
0.9597  
Epoch 85230/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0286 - accuracy:  
0.9591  
Epoch 85231/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0283 - accuracy: 0.9592  
Epoch 85232/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy: 0.9593  
Epoch 85233/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9595  
Epoch 85234/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy: 0.9602  
Epoch 85235/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0292 - accuracy: 0.9593  
Epoch 85236/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy: 0.9598  
Epoch 85237/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy: 0.9606  
Epoch 85238/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy: 0.9601  
Epoch 85239/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy: 0.9595  
Epoch 85240/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy: 0.9592  
Epoch 85241/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy: 0.9599  
Epoch 85242/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy: 0.9603  
Epoch 85243/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy: 0.9598  
Epoch 85244/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0283 - accuracy: 0.9593  
Epoch 85245/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy: 0.9598  
Epoch 85246/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy: 0.9603  
Epoch 85247/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
0.9598  
Epoch 85248/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9596  
Epoch 85249/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0280 - accuracy:  
0.9583  
Epoch 85250/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0283 - accuracy:  
0.9587  
Epoch 85251/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0286 - accuracy:  
0.9594  
Epoch 85252/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9594  
Epoch 85253/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy:  
0.9586  
Epoch 85254/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
0.9599  
Epoch 85255/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0287 - accuracy:  
0.9593  
Epoch 85256/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0292 - accuracy:  
0.9593  
Epoch 85257/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0288 - accuracy:  
0.9591  
Epoch 85258/100000  
2/2 [=====] - 0s 129ms/step - loss: 0.0287 - accuracy:  
0.9599  
Epoch 85259/100000  
2/2 [=====] - 0s 126ms/step - loss: 0.0283 - accuracy:  
0.9588  
Epoch 85260/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0284 - accuracy:  
0.9597  
Epoch 85261/100000  
2/2 [=====] - 0s 127ms/step - loss: 0.0284 - accuracy:  
0.9586  
Epoch 85262/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0283 - accuracy:  
0.9598  
Epoch 85263/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy:  
0.9600  
Epoch 85264/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
0.9599  
Epoch 85265/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:  
0.9595  
Epoch 85266/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9592  
Epoch 85267/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0287 - accuracy:  
0.9603  
Epoch 85268/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
0.9589  
Epoch 85269/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9605  
Epoch 85270/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
0.9602  
Epoch 85271/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:  
0.9597  
Epoch 85272/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0283 - accuracy:  
0.9597  
Epoch 85273/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9591  
Epoch 85274/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9591  
Epoch 85275/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy:  
0.9595  
Epoch 85276/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0282 - accuracy:  
0.9600  
Epoch 85277/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy:  
0.9597  
Epoch 85278/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy:  
0.9595  
Epoch 85279/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
0.9602  
Epoch 85280/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy:  
0.9601  
Epoch 85281/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0290 - accuracy:  
0.9607  
Epoch 85282/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy:  
0.9602  
Epoch 85283/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy:  
0.9601  
Epoch 85284/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
0.9598  
Epoch 85285/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0287 - accuracy:  
0.9599  
Epoch 85286/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9603  
Epoch 85287/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy:  
0.9598  
Epoch 85288/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
0.9590  
Epoch 85289/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9605  
Epoch 85290/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9593  
Epoch 85291/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0290 - accuracy:  
0.9605  
Epoch 85292/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0290 - accuracy:  
0.9600  
Epoch 85293/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy:  
0.9598  
Epoch 85294/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9597  
Epoch 85295/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9600  
Epoch 85296/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
0.9584  
Epoch 85297/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0291 - accuracy:  
0.9606  
Epoch 85298/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy:  
0.9596  
Epoch 85299/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
0.9596  
Epoch 85300/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy:  
0.9600  
Epoch 85301/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9596  
Epoch 85302/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9598  
Epoch 85303/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9604  
Epoch 85304/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9608  
Epoch 85305/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9606  
Epoch 85306/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9596  
Epoch 85307/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0305 - accuracy:  
0.9597  
Epoch 85308/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9589  
Epoch 85309/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy:  
0.9586  
Epoch 85310/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9590  
Epoch 85311/100000



2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9593  
Epoch 85312/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0306 - accuracy:  
0.9599  
Epoch 85313/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9599  
Epoch 85314/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9591  
Epoch 85315/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0302 - accuracy:  
0.9603  
Epoch 85316/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9602  
Epoch 85317/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9595  
Epoch 85318/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0307 - accuracy:  
0.9594  
Epoch 85319/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy:  
0.9589  
Epoch 85320/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9596  
Epoch 85321/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9591  
Epoch 85322/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy:  
0.9595  
Epoch 85323/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
0.9609  
Epoch 85324/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9609  
Epoch 85325/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0291 - accuracy:  
0.9593  
Epoch 85326/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9600  
Epoch 85327/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy:  
0.9594  
Epoch 85328/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0284 - accuracy:  
0.9595  
Epoch 85329/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy:  
0.9593  
Epoch 85330/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0290 - accuracy:  
0.9603  
Epoch 85331/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9603  
Epoch 85332/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9597  
Epoch 85333/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0282 - accuracy:  
0.9593  
Epoch 85334/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:  
0.9598  
Epoch 85335/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy:  
0.9599  
Epoch 85336/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
0.9587  
Epoch 85337/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
0.9594  
Epoch 85338/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0282 - accuracy:  
0.9601  
Epoch 85339/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9601  
Epoch 85340/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
0.9597  
Epoch 85341/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
0.9588  
Epoch 85342/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy:  
0.9592  
Epoch 85343/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy:  
0.9581  
Epoch 85344/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0291 - accuracy:  
0.9598  
Epoch 85345/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
0.9593  
Epoch 85346/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9604  
Epoch 85347/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0287 - accuracy:  
0.9605  
Epoch 85348/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0282 - accuracy:  
0.9599  
Epoch 85349/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0288 - accuracy:  
0.9595  
Epoch 85350/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0287 - accuracy:  
0.9598  
Epoch 85351/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9612  
Epoch 85352/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
0.9602  
Epoch 85353/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9602  
Epoch 85354/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
0.9593  
Epoch 85355/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:  
0.9590  
Epoch 85356/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy:  
0.9598  
Epoch 85357/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy:  
0.9589  
Epoch 85358/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
0.9601  
Epoch 85359/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9592  
Epoch 85360/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
0.9603  
Epoch 85361/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy:  
0.9597  
Epoch 85362/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0287 - accuracy:  
0.9597  
Epoch 85363/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0288 - accuracy:  
0.9595  
Epoch 85364/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy:  
0.9594  
Epoch 85365/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0280 - accuracy:  
0.9588  
Epoch 85366/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
0.9591  
Epoch 85367/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0280 - accuracy:  
0.9591  
Epoch 85368/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9598  
Epoch 85369/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0283 - accuracy:  
0.9597  
Epoch 85370/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:  
0.9597  
Epoch 85371/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9601  
Epoch 85372/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
0.9604  
Epoch 85373/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:  
0.9592  
Epoch 85374/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0293 - accuracy:  
0.9594  
Epoch 85375/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy:  
0.9592  
Epoch 85376/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0286 - accuracy:  
0.9595  
Epoch 85377/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0282 - accuracy:  
0.9599  
Epoch 85378/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9590  
Epoch 85379/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9588  
Epoch 85380/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
0.9594  
Epoch 85381/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9596  
Epoch 85382/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9601  
Epoch 85383/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
0.9585  
Epoch 85384/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9603  
Epoch 85385/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
0.9594  
Epoch 85386/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
0.9590  
Epoch 85387/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy:  
0.9600  
Epoch 85388/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9595  
Epoch 85389/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
0.9600  
Epoch 85390/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0283 - accuracy:  
0.9587  
Epoch 85391/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
0.9602  
Epoch 85392/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy:  
0.9594  
Epoch 85393/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9613  
Epoch 85394/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
0.9600  
Epoch 85395/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9608  
Epoch 85396/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
0.9595  
Epoch 85397/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy:  
0.9596  
Epoch 85398/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy:  
0.9592  
Epoch 85399/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0296 - accuracy:  
0.9586  
Epoch 85400/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9600  
Epoch 85401/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9594  
Epoch 85402/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
0.9597  
Epoch 85403/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0292 - accuracy:  
0.9593  
Epoch 85404/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9598  
Epoch 85405/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9594  
Epoch 85406/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
0.9592  
Epoch 85407/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
0.9601  
Epoch 85408/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy:  
0.9599  
Epoch 85409/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9591  
Epoch 85410/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0288 - accuracy:  
0.9593  
Epoch 85411/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
0.9588  
Epoch 85412/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:  
0.9609  
Epoch 85413/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9592  
Epoch 85414/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9602  
Epoch 85415/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy:  
0.9610  
Epoch 85416/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9591  
Epoch 85417/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0284 - accuracy:  
0.9588  
Epoch 85418/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy:  
0.9596  
Epoch 85419/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0286 - accuracy:  
0.9595  
Epoch 85420/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0283 - accuracy:  
0.9595  
Epoch 85421/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0287 - accuracy:  
0.9605  
Epoch 85422/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
0.9607  
Epoch 85423/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy: 0.9599  
Epoch 85424/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy: 0.9587  
Epoch 85425/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy: 0.9597  
Epoch 85426/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy: 0.9592  
Epoch 85427/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9594  
Epoch 85428/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy: 0.9603  
Epoch 85429/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0282 - accuracy: 0.9592  
Epoch 85430/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0282 - accuracy: 0.9601  
Epoch 85431/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0285 - accuracy: 0.9602  
Epoch 85432/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0290 - accuracy: 0.9592  
Epoch 85433/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy: 0.9596  
Epoch 85434/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0286 - accuracy: 0.9585  
Epoch 85980/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy: 0.9604  
Epoch 85981/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0292 - accuracy: 0.9609  
Epoch 85982/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0281 - accuracy: 0.9592  
Epoch 85983/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy: 0.9598  
Epoch 85984/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:  
0.9590  
Epoch 85985/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy:  
0.9598  
Epoch 85986/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0282 - accuracy:  
0.9598  
Epoch 85987/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
0.9595  
Epoch 85988/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:  
0.9592  
Epoch 85989/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9610  
Epoch 85990/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
0.9601  
Epoch 85991/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0284 - accuracy:  
0.9595  
Epoch 85992/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
0.9591  
Epoch 85993/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:  
0.9597  
Epoch 85994/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
0.9598  
Epoch 85995/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
0.9600  
Epoch 85996/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
0.9591  
Epoch 85997/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:  
0.9608  
Epoch 85998/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9601  
Epoch 85999/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0281 - accuracy:  
0.9597  
Epoch 86000/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy: 0.9591  
Epoch 86001/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0281 - accuracy: 0.9592  
Epoch 86002/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0282 - accuracy: 0.9592  
Epoch 86003/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy: 0.9592  
Epoch 86004/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9594  
Epoch 86005/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy: 0.9596  
Epoch 86006/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy: 0.9596  
Epoch 86007/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy: 0.9592  
Epoch 86008/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy: 0.9595  
Epoch 86009/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy: 0.9595  
Epoch 86010/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9605  
Epoch 86011/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0290 - accuracy: 0.9594  
Epoch 86012/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9596  
Epoch 86013/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy: 0.9595  
Epoch 86014/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0295 - accuracy: 0.9602  
Epoch 86015/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy: 0.9598  
Epoch 86016/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0290 - accuracy: 0.9594  
Epoch 86017/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0287 - accuracy: 0.9588  
Epoch 86018/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy: 0.9596  
Epoch 86019/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0295 - accuracy: 0.9594  
Epoch 86020/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy: 0.9596  
Epoch 86021/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0284 - accuracy: 0.9600  
Epoch 86022/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0287 - accuracy: 0.9601  
Epoch 86023/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0286 - accuracy: 0.9599  
Epoch 86024/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0288 - accuracy: 0.9606  
Epoch 86025/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9604  
Epoch 86026/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy: 0.9600  
Epoch 86027/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy: 0.9600  
Epoch 86028/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy: 0.9597  
Epoch 86029/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0281 - accuracy: 0.9598  
Epoch 86030/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy: 0.9594  
Epoch 86031/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9600  
Epoch 86032/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy: 0.9587  
Epoch 86033/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy: 0.9594  
Epoch 86034/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy: 0.9595  
Epoch 86035/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy: 0.9597  
Epoch 86036/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy: 0.9601  
Epoch 86037/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy: 0.9593  
Epoch 86038/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy: 0.9594  
Epoch 86039/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0288 - accuracy: 0.9596  
Epoch 86040/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy: 0.9596  
Epoch 86041/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy: 0.9609  
Epoch 86042/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0285 - accuracy: 0.9599  
Epoch 86043/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0286 - accuracy: 0.9593  
Epoch 86044/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9603  
Epoch 86045/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0293 - accuracy: 0.9597  
Epoch 86046/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy: 0.9598  
Epoch 86047/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy: 0.9598  
Epoch 86048/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9598  
Epoch 86049/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
0.9593  
Epoch 86050/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9598  
Epoch 86051/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0294 - accuracy:  
0.9605  
Epoch 86052/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9602  
Epoch 86053/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9599  
Epoch 86054/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9595  
Epoch 86055/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0292 - accuracy:  
0.9598  
Epoch 86056/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0287 - accuracy:  
0.9596  
Epoch 86057/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0290 - accuracy:  
0.9590  
Epoch 86058/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0290 - accuracy:  
0.9598  
Epoch 86059/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9608  
Epoch 86060/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9599  
Epoch 86061/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9583  
Epoch 86062/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9596  
Epoch 86063/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0282 - accuracy:  
0.9589  
Epoch 86064/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
0.9597  
Epoch 86065/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0289 - accuracy:  
0.9599  
Epoch 86066/100000  
2/2 [=====] - 0s 138ms/step - loss: 0.0287 - accuracy:  
0.9591  
Epoch 86067/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0295 - accuracy:  
0.9604  
Epoch 86068/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0291 - accuracy:  
0.9596  
Epoch 86069/100000  
2/2 [=====] - 0s 128ms/step - loss: 0.0290 - accuracy:  
0.9599  
Epoch 86070/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0291 - accuracy:  
0.9601  
Epoch 86071/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
0.9589  
Epoch 86072/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9601  
Epoch 86073/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0283 - accuracy:  
0.9593  
Epoch 86074/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0284 - accuracy:  
0.9600  
Epoch 86075/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy:  
0.9599  
Epoch 86076/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
0.9599  
Epoch 86077/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
0.9602  
Epoch 86078/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
0.9596  
Epoch 86079/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9613  
Epoch 86080/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy:  
0.9594  
Epoch 86081/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0289 - accuracy:  
0.9595  
Epoch 86082/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0295 - accuracy:  
0.9604  
Epoch 86083/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy:  
0.9594  
Epoch 86084/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0291 - accuracy:  
0.9601  
Epoch 86085/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9602  
Epoch 86086/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9599  
Epoch 86087/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9594  
Epoch 86088/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0311 - accuracy:  
0.9594  
Epoch 86089/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9607  
Epoch 86090/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9602  
Epoch 86091/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9595  
Epoch 86092/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
0.9586  
Epoch 86093/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:  
0.9593  
Epoch 86094/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9592  
Epoch 86095/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:  
0.9602  
Epoch 86096/100000

2/2 [=====] - 0s 113ms/step - loss: 0.0291 - accuracy: 0.9595  
Epoch 86097/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy: 0.9589  
Epoch 86098/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0291 - accuracy: 0.9597  
Epoch 86099/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy: 0.9594  
Epoch 86100/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9587  
Epoch 86101/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy: 0.9600  
Epoch 86102/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0309 - accuracy: 0.9600  
Epoch 86103/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0303 - accuracy: 0.9587  
Epoch 86104/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9594  
Epoch 86105/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy: 0.9596  
Epoch 86106/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy: 0.9595  
Epoch 86107/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy: 0.9598  
Epoch 86108/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0296 - accuracy: 0.9593  
Epoch 86109/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy: 0.9601  
Epoch 86110/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy: 0.9592  
Epoch 86111/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy: 0.9597  
Epoch 86112/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9589  
Epoch 86113/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0289 - accuracy: 0.9592  
Epoch 86114/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy: 0.9600  
Epoch 86115/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy: 0.9598  
Epoch 86116/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy: 0.9597  
Epoch 86117/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy: 0.9594  
Epoch 86118/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy: 0.9600  
Epoch 86119/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy: 0.9603  
Epoch 86120/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0283 - accuracy: 0.9586  
Epoch 86121/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9600  
Epoch 86122/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy: 0.9602  
Epoch 86123/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy: 0.9601  
Epoch 86124/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy: 0.9606  
Epoch 86125/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy: 0.9611  
Epoch 86126/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy: 0.9588  
Epoch 86127/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0283 - accuracy: 0.9597  
Epoch 86128/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9598  
Epoch 86129/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy:  
0.9591  
Epoch 86130/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
0.9608  
Epoch 86131/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9593  
Epoch 86132/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy:  
0.9588  
Epoch 86133/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0290 - accuracy:  
0.9603  
Epoch 86134/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0292 - accuracy:  
0.9598  
Epoch 86135/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
0.9598  
Epoch 86136/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9601  
Epoch 86137/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9595  
Epoch 86138/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
0.9592  
Epoch 86139/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
0.9602  
Epoch 86140/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy:  
0.9591  
Epoch 86141/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
0.9599  
Epoch 86142/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9600  
Epoch 86143/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9604  
Epoch 86144/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9592  
Epoch 86145/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0287 - accuracy: 0.9600  
Epoch 86146/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy: 0.9594  
Epoch 86147/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy: 0.9599  
Epoch 86148/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9592  
Epoch 86149/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0288 - accuracy: 0.9607  
Epoch 86150/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy: 0.9595  
Epoch 86151/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy: 0.9589  
Epoch 86152/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0286 - accuracy: 0.9592  
Epoch 86153/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy: 0.9600  
Epoch 86154/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy: 0.9598  
Epoch 86155/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0282 - accuracy: 0.9599  
Epoch 86156/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy: 0.9584  
Epoch 86157/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9592  
Epoch 86158/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0284 - accuracy: 0.9594  
Epoch 86159/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9594  
Epoch 86160/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9592  
Epoch 86161/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0283 - accuracy:  
0.9591  
Epoch 86162/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0282 - accuracy:  
0.9595  
Epoch 86163/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0280 - accuracy:  
0.9595  
Epoch 86164/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0279 - accuracy:  
0.9599  
Epoch 86165/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy:  
0.9592  
Epoch 86166/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0283 - accuracy:  
0.9594  
Epoch 86167/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
0.9589  
Epoch 86168/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9594  
Epoch 86169/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0284 - accuracy:  
0.9587  
Epoch 86170/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:  
0.9592  
Epoch 86171/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9599  
Epoch 86172/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0286 - accuracy:  
0.9595  
Epoch 86173/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0287 - accuracy:  
0.9597  
Epoch 86174/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9599  
Epoch 86175/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9601  
Epoch 86176/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9594  
Epoch 86177/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy:  
0.9600  
Epoch 86178/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
0.9593  
Epoch 86179/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0282 - accuracy:  
0.9586  
Epoch 86180/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
0.9598  
Epoch 86181/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy:  
0.9589  
Epoch 86182/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0290 - accuracy:  
0.9591  
Epoch 86183/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0281 - accuracy:  
0.9595  
Epoch 86184/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0295 - accuracy:  
0.9591  
Epoch 86185/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
0.9600  
Epoch 86186/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
0.9596  
Epoch 86187/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy:  
0.9594  
Epoch 86188/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
0.9603  
Epoch 86189/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0287 - accuracy:  
0.9590  
Epoch 86190/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0292 - accuracy:  
0.9599  
Epoch 86191/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0293 - accuracy:  
0.9599  
Epoch 86192/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0288 - accuracy: 0.9597  
Epoch 86193/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0284 - accuracy: 0.9595  
Epoch 86194/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy: 0.9598  
Epoch 86195/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy: 0.9607  
Epoch 86196/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy: 0.9593  
Epoch 86197/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy: 0.9593  
Epoch 86198/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy: 0.9599  
Epoch 86199/100000  
1/2 [=====>...] - ETA: 0s - loss: 0.0285 - accuracy: 0.9610  
Epoch 86467/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0287 - accuracy: 0.9588  
Epoch 86468/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy: 0.9589  
Epoch 86469/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy: 0.9600  
Epoch 86470/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy: 0.9608  
Epoch 86471/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy: 0.9585  
Epoch 86472/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy: 0.9597  
Epoch 86473/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy: 0.9594  
Epoch 86474/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9594  
Epoch 86475/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:

0.9599  
Epoch 86476/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy: 0.9597  
Epoch 86477/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0287 - accuracy: 0.9595  
Epoch 86478/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0294 - accuracy: 0.9599  
Epoch 86479/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0299 - accuracy: 0.9590  
Epoch 86480/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0295 - accuracy: 0.9588  
Epoch 86481/100000  
2/2 [=====] - 0s 128ms/step - loss: 0.0296 - accuracy: 0.9605  
Epoch 86482/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0289 - accuracy: 0.9591  
Epoch 86483/100000  
2/2 [=====] - 0s 126ms/step - loss: 0.0292 - accuracy: 0.9600  
Epoch 86484/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0297 - accuracy: 0.9596  
Epoch 86485/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0289 - accuracy: 0.9600  
Epoch 86486/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0292 - accuracy: 0.9602  
Epoch 86487/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9590  
Epoch 86488/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy: 0.9595  
Epoch 86489/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy: 0.9602  
Epoch 86490/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy: 0.9600  
Epoch 86491/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:

0.9598  
 Epoch 86492/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0292 - accuracy:  
 0.9603  
 Epoch 86493/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
 0.9594  
 Epoch 86494/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
 0.9599  
 Epoch 86495/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0282 - accuracy:  
 0.9596  
 Epoch 86496/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
 0.9595  
 Epoch 86497/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
 0.9603  
 Epoch 86498/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
 0.9598  
 Epoch 86499/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy:  
 0.9605  
 Epoch 86500/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0292 - accuracy:  
 0.9595  
 Epoch 86501/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
 0.9593  
 Epoch 86502/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
 0.9604  
 Epoch 86503/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy:  
 0.9602  
 Epoch 86504/100000  
 2/2 [=====] - 0s 113ms/step - loss: 0.0288 - accuracy:  
 0.9591  
 Epoch 86505/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy:  
 0.9592  
 Epoch 86506/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
 0.9596  
 Epoch 86507/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0284 - accuracy:



0.9591  
Epoch 86508/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0286 - accuracy:  
0.9603  
Epoch 86509/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0291 - accuracy:  
0.9593  
Epoch 86510/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
0.9600  
Epoch 86511/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0284 - accuracy:  
0.9592  
Epoch 86512/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0284 - accuracy:  
0.9592  
Epoch 86513/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
0.9604  
Epoch 86514/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
0.9599  
Epoch 86515/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy:  
0.9599  
Epoch 86516/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9604  
Epoch 86517/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy:  
0.9596  
Epoch 86518/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
0.9601  
Epoch 86519/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy:  
0.9596  
Epoch 86520/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0289 - accuracy:  
0.9591  
Epoch 86521/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:  
0.9597  
Epoch 86522/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0293 - accuracy:  
0.9596  
Epoch 86523/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:

0.9595  
 Epoch 86524/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
 0.9601  
 Epoch 86525/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
 0.9598  
 Epoch 86526/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy:  
 0.9596  
 Epoch 86527/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
 0.9594  
 Epoch 86528/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy:  
 0.9600  
 Epoch 86529/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy:  
 0.9602  
 Epoch 86530/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
 0.9598  
 Epoch 86531/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy:  
 0.9599  
 Epoch 86532/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
 0.9594  
 Epoch 86533/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0290 - accuracy:  
 0.9596  
 Epoch 86534/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy:  
 0.9589  
 Epoch 86535/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0293 - accuracy:  
 0.9595  
 Epoch 86536/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0294 - accuracy:  
 0.9596  
 Epoch 86537/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
 0.9595  
 Epoch 86538/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy:  
 0.9600  
 Epoch 86539/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:

0.9607  
 Epoch 86540/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
 0.9594  
 Epoch 86541/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
 0.9606  
 Epoch 86542/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy:  
 0.9600  
 Epoch 86543/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0285 - accuracy:  
 0.9587  
 Epoch 86544/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0293 - accuracy:  
 0.9598  
 Epoch 86545/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
 0.9609  
 Epoch 86546/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
 0.9587  
 Epoch 86547/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
 0.9600  
 Epoch 86548/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
 0.9595  
 Epoch 86549/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy:  
 0.9598  
 Epoch 86550/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy:  
 0.9597  
 Epoch 86551/100000  
 2/2 [=====] - 0s 121ms/step - loss: 0.0287 - accuracy:  
 0.9599  
 Epoch 86552/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0282 - accuracy:  
 0.9586  
 Epoch 86553/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
 0.9607  
 Epoch 86554/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
 0.9603  
 Epoch 86555/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:

0.9596  
Epoch 86556/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
0.9603  
Epoch 86557/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
0.9600  
Epoch 86558/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0281 - accuracy:  
0.9592  
Epoch 86559/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9600  
Epoch 86560/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9591  
Epoch 86561/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy:  
0.9597  
Epoch 86562/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0284 - accuracy:  
0.9596  
Epoch 86563/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0284 - accuracy:  
0.9592  
Epoch 86564/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0282 - accuracy:  
0.9591  
Epoch 86565/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy:  
0.9594  
Epoch 86566/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
0.9599  
Epoch 86567/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
0.9597  
Epoch 86568/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy:  
0.9596  
Epoch 86569/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0281 - accuracy:  
0.9598  
Epoch 86570/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0281 - accuracy:  
0.9594  
Epoch 86571/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy:

0.9592  
Epoch 86572/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy: 0.9607  
Epoch 86573/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy: 0.9597  
Epoch 86574/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy: 0.9589  
Epoch 86575/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy: 0.9606  
Epoch 86576/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0285 - accuracy: 0.9595  
Epoch 86577/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy: 0.9595  
Epoch 86578/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy: 0.9590  
Epoch 86579/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy: 0.9599  
Epoch 86580/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy: 0.9589  
Epoch 86581/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0282 - accuracy: 0.9598  
Epoch 86582/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy: 0.9598  
Epoch 86583/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0286 - accuracy: 0.9593  
Epoch 86584/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0281 - accuracy: 0.9591  
Epoch 86585/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0290 - accuracy: 0.9598  
Epoch 86586/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9591  
Epoch 86587/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy:

```

0.9591
Epoch 86588/100000
2/2 [=====] - 0s 118ms/step - loss: 0.0288 - accuracy:
0.9586
Epoch 86589/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:
0.9591
Epoch 86590/100000
2/2 [=====] - 0s 119ms/step - loss: 0.0288 - accuracy:
0.9597
Epoch 86591/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:
0.9600
Epoch 86592/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:
0.9603
Epoch 86593/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy:
0.9597
Epoch 86594/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:
0.9604
Epoch 86595/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:
0.9598
Epoch 86596/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:
0.9600
Epoch 86597/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:
0.9593
Epoch 86598/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:
0.9597
Epoch 86599/100000
2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy:
0.9605
Epoch 86600/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:
0.9592
Epoch 86601/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:
0.9602
Epoch 86602/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0282 - accuracy:
0.9598
Epoch 86603/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:

```

0.9608  
Epoch 86604/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9598  
Epoch 86605/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0283 - accuracy: 0.9591  
Epoch 86606/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy: 0.9582  
Epoch 86607/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy: 0.9596  
Epoch 86608/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy: 0.9596  
Epoch 86609/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy: 0.9587  
Epoch 86610/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0283 - accuracy: 0.9595  
Epoch 86611/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy: 0.9591  
Epoch 86612/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy: 0.9596  
Epoch 86613/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0288 - accuracy: 0.9601  
Epoch 86614/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy: 0.9596  
Epoch 86615/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy: 0.9591  
Epoch 86616/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy: 0.9602  
Epoch 86617/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy: 0.9598  
Epoch 86618/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0285 - accuracy: 0.9602  
Epoch 86619/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0284 - accuracy:

0.9598  
Epoch 86620/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy: 0.9602  
Epoch 86621/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0284 - accuracy: 0.9599  
Epoch 86622/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy: 0.9602  
Epoch 86623/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy: 0.9587  
Epoch 86624/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy: 0.9607  
Epoch 86625/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy: 0.9592  
Epoch 86626/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy: 0.9604  
Epoch 86627/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy: 0.9592  
Epoch 86628/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0287 - accuracy: 0.9601  
Epoch 86629/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0291 - accuracy: 0.9595  
Epoch 86630/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy: 0.9597  
Epoch 86631/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy: 0.9593  
Epoch 86632/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy: 0.9599  
Epoch 86633/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy: 0.9590  
Epoch 86634/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9594  
Epoch 86635/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:



0.9601  
 Epoch 86636/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
 0.9600  
 Epoch 86637/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0281 - accuracy:  
 0.9600  
 Epoch 86638/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
 0.9596  
 Epoch 86639/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
 0.9592  
 Epoch 86640/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0279 - accuracy:  
 0.9591  
 Epoch 86641/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy:  
 0.9596  
 Epoch 86642/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0286 - accuracy:  
 0.9594  
 Epoch 86643/100000  
 2/2 [=====] - 0s 126ms/step - loss: 0.0282 - accuracy:  
 0.9596  
 Epoch 86644/100000  
 2/2 [=====] - 0s 127ms/step - loss: 0.0284 - accuracy:  
 0.9595  
 Epoch 86645/100000  
 2/2 [=====] - 0s 123ms/step - loss: 0.0285 - accuracy:  
 0.9598  
 Epoch 86646/100000  
 2/2 [=====] - 0s 151ms/step - loss: 0.0280 - accuracy:  
 0.9600  
 Epoch 86647/100000  
 2/2 [=====] - 0s 123ms/step - loss: 0.0286 - accuracy:  
 0.9591  
 Epoch 86648/100000  
 2/2 [=====] - 0s 123ms/step - loss: 0.0281 - accuracy:  
 0.9591  
 Epoch 86649/100000  
 2/2 [=====] - 0s 135ms/step - loss: 0.0280 - accuracy:  
 0.9590  
 Epoch 86650/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0286 - accuracy:  
 0.9593  
 Epoch 86651/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0283 - accuracy:

0.9601  
Epoch 86652/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy:  
0.9595  
Epoch 86653/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9591  
Epoch 86654/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9594  
Epoch 86655/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0290 - accuracy:  
0.9599  
Epoch 86656/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
0.9592  
Epoch 86657/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
0.9597  
Epoch 86658/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9605  
Epoch 86659/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9601  
Epoch 86660/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
0.9595  
Epoch 86661/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0283 - accuracy:  
0.9589  
Epoch 86662/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy:  
0.9596  
Epoch 86663/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0290 - accuracy:  
0.9599  
Epoch 86664/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
0.9598  
Epoch 86665/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9594  
Epoch 86666/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
0.9593  
Epoch 86667/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:

0.9590  
Epoch 86668/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0281 - accuracy: 0.9588  
Epoch 86669/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0283 - accuracy: 0.9595  
Epoch 86670/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0283 - accuracy: 0.9595  
Epoch 86671/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy: 0.9604  
Epoch 86672/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy: 0.9596  
Epoch 86673/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy: 0.9590  
Epoch 86674/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy: 0.9597  
Epoch 86675/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy: 0.9603  
Epoch 86676/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy: 0.9600  
Epoch 86677/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy: 0.9602  
Epoch 86678/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy: 0.9588  
Epoch 86679/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9593  
Epoch 86680/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy: 0.9594  
Epoch 86681/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy: 0.9594  
Epoch 86682/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0288 - accuracy: 0.9595  
Epoch 86683/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:

0.9589  
 Epoch 86684/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
 0.9597  
 Epoch 86685/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:  
 0.9594  
 Epoch 86686/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
 0.9589  
 Epoch 86687/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
 0.9598  
 Epoch 86688/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
 0.9602  
 Epoch 86689/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0289 - accuracy:  
 0.9596  
 Epoch 86690/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0293 - accuracy:  
 0.9601  
 Epoch 86691/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy:  
 0.9591  
 Epoch 86692/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
 0.9598  
 Epoch 86693/100000  
 2/2 [=====] - 0s 122ms/step - loss: 0.0288 - accuracy:  
 0.9595  
 Epoch 86694/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0292 - accuracy:  
 0.9597  
 Epoch 86695/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
 0.9600  
 Epoch 86696/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
 0.9605  
 Epoch 86697/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy:  
 0.9604  
 Epoch 86698/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
 0.9593  
 Epoch 86699/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:

0.9591  
Epoch 86700/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy: 0.9596  
Epoch 86701/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9605  
Epoch 86702/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy: 0.9594  
Epoch 86703/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0291 - accuracy: 0.9596  
Epoch 86704/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy: 0.9598  
Epoch 86705/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9597  
Epoch 86706/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy: 0.9592  
Epoch 86707/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy: 0.9597  
Epoch 86708/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy: 0.9599  
Epoch 86709/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0280 - accuracy: 0.9584  
Epoch 86710/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy: 0.9597  
Epoch 86711/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0285 - accuracy: 0.9594  
Epoch 86712/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0284 - accuracy: 0.9598  
Epoch 86713/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0287 - accuracy: 0.9599  
Epoch 86714/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9593  
Epoch 86715/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:

0.9591  
Epoch 86716/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
0.9597  
Epoch 86717/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:  
0.9596  
Epoch 86718/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0291 - accuracy:  
0.9593  
Epoch 86719/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
0.9591  
Epoch 86720/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0289 - accuracy:  
0.9604  
Epoch 86721/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
0.9591  
Epoch 86722/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
0.9594  
Epoch 86723/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9588  
Epoch 86724/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9600  
Epoch 86725/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0279 - accuracy:  
0.9585  
Epoch 86726/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
0.9602  
Epoch 86727/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy:  
0.9598  
Epoch 86728/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9594  
Epoch 86729/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9603  
Epoch 86730/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
0.9593  
Epoch 86731/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0290 - accuracy:

0.9588  
 Epoch 86732/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy:  
 0.9595  
 Epoch 86733/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0288 - accuracy:  
 0.9594  
 Epoch 86734/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy:  
 0.9595  
 Epoch 86735/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy:  
 0.9601  
 Epoch 86736/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy:  
 0.9595  
 Epoch 86737/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy:  
 0.9596  
 Epoch 86738/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
 0.9602  
 Epoch 86739/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
 0.9592  
 Epoch 86740/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
 0.9588  
 Epoch 86741/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
 0.9601  
 Epoch 86742/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
 0.9595  
 Epoch 86743/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:  
 0.9589  
 Epoch 86744/100000  
 2/2 [=====] - 0s 124ms/step - loss: 0.0285 - accuracy:  
 0.9593  
 Epoch 86745/100000  
 2/2 [=====] - 0s 124ms/step - loss: 0.0290 - accuracy:  
 0.9596  
 Epoch 86746/100000  
 2/2 [=====] - 0s 125ms/step - loss: 0.0287 - accuracy:  
 0.9597  
 Epoch 86747/100000  
 2/2 [=====] - 0s 133ms/step - loss: 0.0291 - accuracy:

0.9595  
Epoch 86748/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0289 - accuracy: 0.9602  
Epoch 86749/100000  
2/2 [=====] - 0s 131ms/step - loss: 0.0295 - accuracy: 0.9609  
Epoch 86750/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0288 - accuracy: 0.9598  
Epoch 86751/100000  
2/2 [=====] - 0s 138ms/step - loss: 0.0285 - accuracy: 0.9599  
Epoch 86752/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy: 0.9595  
Epoch 86753/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0291 - accuracy: 0.9605  
Epoch 86754/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0292 - accuracy: 0.9590  
Epoch 86755/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy: 0.9605  
Epoch 86756/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy: 0.9593  
Epoch 86757/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy: 0.9590  
Epoch 86758/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy: 0.9592  
Epoch 86759/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0281 - accuracy: 0.9594  
Epoch 86760/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy: 0.9594  
Epoch 86761/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy: 0.9597  
Epoch 86762/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy: 0.9603  
Epoch 86763/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0284 - accuracy:



```

0.9593
Epoch 86764/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:
0.9593
Epoch 86765/100000
2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy:
0.9588
Epoch 86766/100000
2/2 [=====] - 0s 117ms/step - loss: 0.0283 - accuracy:
0.9597
Epoch 86767/100000
2/2 [=====] - 0s 116ms/step - loss: 0.0292 - accuracy:
0.9597
Epoch 86768/100000
2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy:
0.9592
Epoch 86769/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:
0.9598
Epoch 86770/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:
0.9601
Epoch 86771/100000
2/2 [=====] - 0s 118ms/step - loss: 0.0286 - accuracy:
0.9594
Epoch 86772/100000
2/2 [=====] - 0s 113ms/step - loss: 0.0290 - accuracy:
0.9596
Epoch 86773/100000
2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy:
0.9587
Epoch 86774/100000
2/2 [=====] - 0s 117ms/step - loss: 0.0286 - accuracy:
0.9604
Epoch 86775/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:
0.9598
Epoch 86776/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy:
0.9593
Epoch 86777/100000
2/2 [=====] - 0s 116ms/step - loss: 0.0280 - accuracy:
0.9591
Epoch 86778/100000
2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy:
0.9606
Epoch 86779/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy:

```

0.9601  
Epoch 86780/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy: 0.9585  
Epoch 86781/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy: 0.9585  
Epoch 86782/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy: 0.9599  
Epoch 86783/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy: 0.9594  
Epoch 86784/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy: 0.9592  
Epoch 86785/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0291 - accuracy: 0.9604  
Epoch 86786/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy: 0.9586  
Epoch 86787/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9598  
Epoch 86788/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy: 0.9593  
Epoch 86789/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy: 0.9598  
Epoch 86790/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy: 0.9600  
Epoch 86791/100000  
2/2 [=====] - 0s 127ms/step - loss: 0.0292 - accuracy: 0.9598  
Epoch 86792/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy: 0.9601  
Epoch 86793/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy: 0.9596  
Epoch 86794/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0291 - accuracy: 0.9593  
Epoch 86795/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:

0.9598  
Epoch 86796/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0284 - accuracy:  
0.9586  
Epoch 86797/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9599  
Epoch 86798/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:  
0.9597  
Epoch 86799/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0282 - accuracy:  
0.9595  
Epoch 86800/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
0.9600  
Epoch 86801/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9588  
Epoch 86802/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9602  
Epoch 86803/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0282 - accuracy:  
0.9593  
Epoch 86804/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0291 - accuracy:  
0.9600  
Epoch 86805/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
0.9600  
Epoch 86806/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9590  
Epoch 86807/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9610  
Epoch 86808/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0287 - accuracy:  
0.9596  
Epoch 86809/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
0.9590  
Epoch 86810/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
0.9608  
Epoch 86811/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:

0.9588  
Epoch 86812/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy: 0.9593  
Epoch 86813/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0281 - accuracy: 0.9593  
Epoch 86814/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy: 0.9596  
Epoch 86815/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9592  
Epoch 86816/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9588  
Epoch 86817/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy: 0.9594  
Epoch 86818/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy: 0.9596  
Epoch 86819/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0280 - accuracy: 0.9593  
Epoch 86820/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0280 - accuracy: 0.9598  
Epoch 86821/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy: 0.9584  
Epoch 86822/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy: 0.9593  
Epoch 86823/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy: 0.9595  
Epoch 86824/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0282 - accuracy: 0.9592  
Epoch 86825/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy: 0.9598  
Epoch 86826/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0292 - accuracy: 0.9597  
Epoch 86827/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0284 - accuracy:

0.9607  
 Epoch 86828/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0286 - accuracy:  
 0.9592  
 Epoch 86829/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
 0.9601  
 Epoch 86830/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
 0.9591  
 Epoch 86831/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
 0.9587  
 Epoch 86832/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0283 - accuracy:  
 0.9596  
 Epoch 86833/100000  
 2/2 [=====] - 0s 113ms/step - loss: 0.0285 - accuracy:  
 0.9596  
 Epoch 86834/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0284 - accuracy:  
 0.9594  
 Epoch 86835/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
 0.9599  
 Epoch 86836/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
 0.9599  
 Epoch 86837/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy:  
 0.9595  
 Epoch 86838/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
 0.9603  
 Epoch 86839/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0282 - accuracy:  
 0.9593  
 Epoch 86840/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0281 - accuracy:  
 0.9592  
 Epoch 86841/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
 0.9605  
 Epoch 86842/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy:  
 0.9586  
 Epoch 86843/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:

0.9599  
Epoch 86844/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy: 0.9595  
Epoch 86845/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0281 - accuracy: 0.9600  
Epoch 86846/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0287 - accuracy: 0.9597  
Epoch 86847/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9598  
Epoch 86848/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy: 0.9601  
Epoch 86849/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0280 - accuracy: 0.9589  
Epoch 86850/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy: 0.9602  
Epoch 86851/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy: 0.9603  
Epoch 86852/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy: 0.9595  
Epoch 86853/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0291 - accuracy: 0.9587  
Epoch 86854/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0296 - accuracy: 0.9608  
Epoch 86855/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy: 0.9598  
Epoch 86856/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy: 0.9596  
Epoch 86857/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy: 0.9604  
Epoch 86858/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9595  
Epoch 86859/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:

0.9594  
Epoch 86860/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0291 - accuracy: 0.9598  
Epoch 86861/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy: 0.9590  
Epoch 86862/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9595  
Epoch 86863/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy: 0.9592  
Epoch 86864/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy: 0.9600  
Epoch 86865/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy: 0.9603  
Epoch 86866/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0292 - accuracy: 0.9598  
Epoch 86867/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9599  
Epoch 86868/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy: 0.9591  
Epoch 86869/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy: 0.9588  
Epoch 86870/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy: 0.9592  
Epoch 86871/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy: 0.9592  
Epoch 86872/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0310 - accuracy: 0.9592  
Epoch 86873/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0303 - accuracy: 0.9598  
Epoch 86874/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy: 0.9585  
Epoch 86875/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0307 - accuracy:

0.9594  
 Epoch 86876/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:  
 0.9590  
 Epoch 86877/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy:  
 0.9602  
 Epoch 86878/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
 0.9604  
 Epoch 86879/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy:  
 0.9584  
 Epoch 86880/100000  
 Epoch 88596/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
 0.9595  
 Epoch 88597/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0308 - accuracy:  
 0.9600  
 Epoch 88598/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
 0.9602  
 Epoch 88599/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0295 - accuracy:  
 0.9595  
 Epoch 88600/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy:  
 0.9597  
 Epoch 88601/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0291 - accuracy:  
 0.9598  
 Epoch 88602/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
 0.9596  
 Epoch 88603/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
 0.9592  
 Epoch 88604/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy:  
 0.9602  
 Epoch 88605/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy:  
 0.9602  
 Epoch 88606/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0287 - accuracy:  
 0.9600  
 Epoch 88607/100000



2/2 [=====] - 0s 117ms/step - loss: 0.0288 - accuracy:  
0.9604  
Epoch 88608/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9594  
Epoch 88609/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9594  
Epoch 88610/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0292 - accuracy:  
0.9605  
Epoch 88611/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9589  
Epoch 88612/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:  
0.9594  
Epoch 88613/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
0.9589  
Epoch 88614/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9586  
Epoch 88615/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0285 - accuracy:  
0.9593  
Epoch 88616/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0284 - accuracy:  
0.9592  
Epoch 88617/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy:  
0.9586  
Epoch 88618/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0284 - accuracy:  
0.9602  
Epoch 88619/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy:  
0.9597  
Epoch 88620/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0282 - accuracy:  
0.9591  
Epoch 88621/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0282 - accuracy:  
0.9597  
Epoch 88622/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy:  
0.9593  
Epoch 88623/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
0.9603  
Epoch 88624/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
0.9589  
Epoch 88625/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0292 - accuracy:  
0.9601  
Epoch 88626/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy:  
0.9592  
Epoch 88627/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0286 - accuracy:  
0.9595  
Epoch 88628/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9599  
Epoch 88629/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
0.9593  
Epoch 88630/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:  
0.9591  
Epoch 88631/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
0.9597  
Epoch 88632/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9598  
Epoch 88633/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
0.9596  
Epoch 88634/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy:  
0.9591  
Epoch 88635/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy:  
0.9596  
Epoch 88636/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9594  
Epoch 88637/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0292 - accuracy:  
0.9599  
Epoch 88638/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
0.9596  
Epoch 88639/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9594  
Epoch 88640/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0296 - accuracy:  
0.9599  
Epoch 88641/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy:  
0.9590  
Epoch 88642/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9597  
Epoch 88643/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0301 - accuracy:  
0.9595  
Epoch 88644/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0305 - accuracy:  
0.9597  
Epoch 88645/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0306 - accuracy:  
0.9595  
Epoch 88646/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9593  
Epoch 88647/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9590  
Epoch 88648/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy:  
0.9598  
Epoch 88649/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9592  
Epoch 88650/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9594  
Epoch 88651/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9590  
Epoch 88652/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
0.9593  
Epoch 88653/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy:  
0.9599  
Epoch 88654/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0290 - accuracy:  
0.9604  
Epoch 88655/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy: 0.9587  
Epoch 88656/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0288 - accuracy: 0.9603  
Epoch 88657/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0292 - accuracy: 0.9598  
Epoch 88658/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy: 0.9597  
Epoch 88659/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0282 - accuracy: 0.9594  
Epoch 88660/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0287 - accuracy: 0.9589  
Epoch 88661/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0284 - accuracy: 0.9598  
Epoch 88662/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0290 - accuracy: 0.9601  
Epoch 88663/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0284 - accuracy: 0.9589  
Epoch 88664/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9610  
Epoch 88665/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy: 0.9593  
Epoch 88666/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy: 0.9602  
Epoch 88667/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9600  
Epoch 88668/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy: 0.9596  
Epoch 88669/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy: 0.9603  
Epoch 88670/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy: 0.9600  
Epoch 88671/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy: 0.9594  
Epoch 88672/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0283 - accuracy: 0.9595  
Epoch 88673/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0290 - accuracy: 0.9598  
Epoch 88674/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy: 0.9602  
Epoch 88675/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy: 0.9601  
Epoch 88676/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy: 0.9599  
Epoch 88677/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0284 - accuracy: 0.9592  
Epoch 88678/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy: 0.9597  
Epoch 88679/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy: 0.9600  
Epoch 88680/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0285 - accuracy: 0.9590  
Epoch 88681/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0281 - accuracy: 0.9596  
Epoch 88682/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy: 0.9595  
Epoch 88683/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy: 0.9602  
Epoch 88684/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy: 0.9600  
Epoch 88685/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0292 - accuracy: 0.9599  
Epoch 88686/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy: 0.9599  
Epoch 88687/100000

2/2 [=====] - 0s 119ms/step - loss: 0.0288 - accuracy:  
0.9597  
Epoch 88688/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy:  
0.9603  
Epoch 88689/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
0.9593  
Epoch 88690/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0280 - accuracy:  
0.9597  
Epoch 88691/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
0.9603  
Epoch 88692/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9597  
Epoch 88693/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9593  
Epoch 88694/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
0.9585  
Epoch 88695/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0293 - accuracy:  
0.9607  
Epoch 88696/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
0.9599  
Epoch 88697/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0303 - accuracy:  
0.9596  
Epoch 88698/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy:  
0.9590  
Epoch 88699/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9596  
Epoch 88700/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9596  
Epoch 88701/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy:  
0.9596  
Epoch 88702/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0296 - accuracy:  
0.9595  
Epoch 88703/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy:  
0.9603  
Epoch 88704/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0289 - accuracy:  
0.9601  
Epoch 88705/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9592  
Epoch 88706/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9596  
Epoch 88707/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0293 - accuracy:  
0.9596  
Epoch 88708/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9600  
Epoch 88709/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy:  
0.9593  
Epoch 88710/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0288 - accuracy:  
0.9594  
Epoch 88711/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0288 - accuracy:  
0.9589  
Epoch 88712/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy:  
0.9600  
Epoch 88713/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy:  
0.9596  
Epoch 88714/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0283 - accuracy:  
0.9599  
Epoch 88715/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0283 - accuracy:  
0.9602  
Epoch 88716/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9598  
Epoch 88717/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
0.9598  
Epoch 88718/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy:  
0.9598  
Epoch 88719/100000

2/2 [=====] - 0s 119ms/step - loss: 0.0286 - accuracy:  
0.9607  
Epoch 88720/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy:  
0.9595  
Epoch 88721/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
0.9600  
Epoch 88722/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
0.9605  
Epoch 88723/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9609  
Epoch 88724/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9594  
Epoch 88725/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0285 - accuracy:  
0.9592  
Epoch 88726/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
0.9599  
Epoch 88727/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
0.9599  
Epoch 88728/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0288 - accuracy:  
0.9599  
Epoch 88729/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy:  
0.9597  
Epoch 88730/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy:  
0.9598  
Epoch 88731/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy:  
0.9596  
Epoch 88732/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
0.9592  
Epoch 88733/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9604  
Epoch 88734/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0290 - accuracy:  
0.9600  
Epoch 88735/100000



2/2 [=====] - 0s 114ms/step - loss: 0.0282 - accuracy:  
0.9592  
Epoch 88736/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
0.9603  
Epoch 88737/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9605  
Epoch 88738/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy:  
0.9594  
Epoch 88739/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9603  
Epoch 88740/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy:  
0.9586  
Epoch 88741/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
0.9590  
Epoch 88742/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
0.9597  
Epoch 88743/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9594  
Epoch 88744/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9600  
Epoch 88745/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0286 - accuracy:  
0.9607  
Epoch 88746/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0289 - accuracy:  
0.9608  
Epoch 88747/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy:  
0.9596  
Epoch 88748/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0304 - accuracy:  
0.9596  
Epoch 88749/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
0.9593  
Epoch 88750/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0290 - accuracy:  
0.9605  
Epoch 88751/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0290 - accuracy:  
0.9599  
Epoch 88752/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
0.9599  
Epoch 88753/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9600  
Epoch 88754/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0292 - accuracy:  
0.9595  
Epoch 88755/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
0.9611  
Epoch 88756/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9594  
Epoch 88757/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:  
0.9594  
Epoch 88758/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0286 - accuracy:  
0.9597  
Epoch 88759/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0284 - accuracy:  
0.9602  
Epoch 88760/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0285 - accuracy:  
0.9602  
Epoch 88761/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0284 - accuracy:  
0.9585  
Epoch 88762/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0284 - accuracy:  
0.9600  
Epoch 88763/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9594  
Epoch 88764/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0290 - accuracy:  
0.9595  
Epoch 88765/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
0.9589  
Epoch 88766/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0288 - accuracy:  
0.9601  
Epoch 88767/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0285 - accuracy: 0.9597  
Epoch 88768/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0282 - accuracy: 0.9605  
Epoch 88769/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0285 - accuracy: 0.9599  
Epoch 88770/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0278 - accuracy: 0.9594  
Epoch 88771/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9599  
Epoch 88772/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0284 - accuracy: 0.9609  
Epoch 88773/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9594  
Epoch 88774/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0281 - accuracy: 0.9588  
Epoch 88775/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy: 0.9600  
Epoch 88776/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy: 0.9594  
Epoch 88777/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy: 0.9600  
Epoch 88778/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0286 - accuracy: 0.9608  
Epoch 88779/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy: 0.9604  
Epoch 88780/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy: 0.9594  
Epoch 88781/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0282 - accuracy: 0.9589  
Epoch 88782/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy: 0.9594  
Epoch 88783/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:  
0.9599  
Epoch 88784/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0280 - accuracy:  
0.9592  
Epoch 88785/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0281 - accuracy:  
0.9597  
Epoch 88786/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0280 - accuracy:  
0.9593  
Epoch 88787/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
0.9604  
Epoch 88788/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
0.9588  
Epoch 88789/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0283 - accuracy:  
0.9591  
Epoch 88790/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0286 - accuracy:  
0.9598  
Epoch 88791/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0284 - accuracy:  
0.9590  
Epoch 88792/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
0.9598  
Epoch 88793/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0282 - accuracy:  
0.9590  
Epoch 88794/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0280 - accuracy:  
0.9593  
Epoch 88795/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0283 - accuracy:  
0.9597  
Epoch 88796/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy:  
0.9597  
Epoch 88797/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9592  
Epoch 88798/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0279 - accuracy:  
0.9596  
Epoch 88799/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0288 - accuracy:  
0.9602  
Epoch 88800/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9597  
Epoch 88801/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9590  
Epoch 88802/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0285 - accuracy:  
0.9595  
Epoch 88803/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0282 - accuracy:  
0.9592  
Epoch 88804/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9595  
Epoch 88805/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0291 - accuracy:  
0.9602  
Epoch 88806/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0284 - accuracy:  
0.9596  
Epoch 88807/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
0.9588  
Epoch 88808/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy:  
0.9593  
Epoch 88809/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0287 - accuracy:  
0.9596  
Epoch 88810/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
0.9586  
Epoch 88811/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0284 - accuracy:  
0.9598  
Epoch 88812/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9598  
Epoch 88813/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
0.9593  
Epoch 88814/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0289 - accuracy:  
0.9596  
Epoch 88815/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
0.9584  
Epoch 89540/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0288 - accuracy:  
0.9601  
Epoch 89541/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy:  
0.9601  
Epoch 89542/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy:  
0.9591  
Epoch 89543/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:  
0.9594  
Epoch 89544/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9603  
Epoch 89545/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0287 - accuracy:  
0.9598  
Epoch 89546/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0285 - accuracy:  
0.9585  
Epoch 89547/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0281 - accuracy:  
0.9589  
Epoch 89548/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
0.9598  
Epoch 89549/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
0.9584  
Epoch 89550/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9595  
Epoch 89551/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
0.9595  
Epoch 89552/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9590  
Epoch 89553/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy:  
0.9595  
Epoch 89554/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9596  
Epoch 89555/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9599  
Epoch 89556/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy:  
0.9601  
Epoch 89557/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy:  
0.9594  
Epoch 89558/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9590  
Epoch 89559/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9596  
Epoch 89560/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9609  
Epoch 89561/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0302 - accuracy:  
0.9602  
Epoch 89562/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9594  
Epoch 89563/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0289 - accuracy:  
0.9598  
Epoch 89564/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9592  
Epoch 89565/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9592  
Epoch 89566/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9598  
Epoch 89567/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0291 - accuracy:  
0.9598  
Epoch 89568/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0292 - accuracy:  
0.9592  
Epoch 89569/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0289 - accuracy:  
0.9598  
Epoch 89570/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
0.9592  
Epoch 89571/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0284 - accuracy: 0.9592  
Epoch 89572/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy: 0.9587  
Epoch 89573/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0282 - accuracy: 0.9593  
Epoch 89574/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9591  
Epoch 89575/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy: 0.9589  
Epoch 89576/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0281 - accuracy: 0.9603  
Epoch 89577/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy: 0.9602  
Epoch 89578/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0282 - accuracy: 0.9600  
Epoch 89579/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy: 0.9603  
Epoch 89580/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy: 0.9589  
Epoch 89581/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy: 0.9593  
Epoch 89582/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0281 - accuracy: 0.9598  
Epoch 89583/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy: 0.9603  
Epoch 89584/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy: 0.9594  
Epoch 89585/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy: 0.9581  
Epoch 89586/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy: 0.9598  
Epoch 89587/100000



2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy:  
0.9601  
Epoch 89588/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
0.9591  
Epoch 89589/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy:  
0.9595  
Epoch 89590/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0287 - accuracy:  
0.9592  
Epoch 89591/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
0.9593  
Epoch 89592/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0289 - accuracy:  
0.9601  
Epoch 89593/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy:  
0.9598  
Epoch 89594/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
0.9590  
Epoch 89595/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9592  
Epoch 89596/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0292 - accuracy:  
0.9607  
Epoch 89597/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9599  
Epoch 89598/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0290 - accuracy:  
0.9601  
Epoch 89599/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy:  
0.9590  
Epoch 89600/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
0.9590  
Epoch 89601/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0283 - accuracy:  
0.9595  
Epoch 89602/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy:  
0.9598  
Epoch 89603/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy:  
0.9590  
Epoch 89604/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
0.9592  
Epoch 89605/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0283 - accuracy:  
0.9591  
Epoch 89606/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy:  
0.9597  
Epoch 89607/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy:  
0.9598  
Epoch 89608/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy:  
0.9600  
Epoch 89609/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy:  
0.9593  
Epoch 89610/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0282 - accuracy:  
0.9592  
Epoch 89611/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
0.9589  
Epoch 89612/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0282 - accuracy:  
0.9597  
Epoch 89613/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy:  
0.9596  
Epoch 89614/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0282 - accuracy:  
0.9595  
Epoch 89615/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0284 - accuracy:  
0.9587  
Epoch 89616/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy:  
0.9602  
Epoch 89617/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9591  
Epoch 89618/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0281 - accuracy:  
0.9590  
Epoch 89619/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9597  
Epoch 89620/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy:  
0.9598  
Epoch 89621/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9594  
Epoch 89622/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy:  
0.9597  
Epoch 89623/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0308 - accuracy:  
0.9600  
Epoch 89624/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0291 - accuracy:  
0.9602  
Epoch 89625/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
0.9592  
Epoch 89626/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9585  
Epoch 89627/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9598  
Epoch 89628/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9592  
Epoch 89629/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
0.9592  
Epoch 89630/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
0.9604  
Epoch 89631/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy:  
0.9598  
Epoch 89632/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0287 - accuracy:  
0.9598  
Epoch 89633/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9607  
Epoch 89634/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
0.9604  
Epoch 89635/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy: 0.9599  
Epoch 89636/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy: 0.9595  
Epoch 89637/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy: 0.9595  
Epoch 89638/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0283 - accuracy: 0.9596  
Epoch 89639/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy: 0.9596  
Epoch 89640/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy: 0.9598  
Epoch 89641/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy: 0.9598  
Epoch 89642/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy: 0.9595  
Epoch 89643/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy: 0.9598  
Epoch 89644/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy: 0.9592  
Epoch 89645/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0284 - accuracy: 0.9598  
Epoch 89646/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy: 0.9592  
Epoch 89647/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy: 0.9595  
Epoch 89648/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy: 0.9599  
Epoch 89649/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0282 - accuracy: 0.9589  
Epoch 89650/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0284 - accuracy: 0.9596  
Epoch 89651/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy: 0.9606  
Epoch 89652/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy: 0.9599  
Epoch 89653/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0279 - accuracy: 0.9595  
Epoch 89654/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0286 - accuracy: 0.9599  
Epoch 89655/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0282 - accuracy: 0.9591  
Epoch 89656/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0282 - accuracy: 0.9591  
Epoch 89657/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0287 - accuracy: 0.9599  
Epoch 89658/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy: 0.9593  
Epoch 89659/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0281 - accuracy: 0.9602  
Epoch 89660/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0279 - accuracy: 0.9591  
Epoch 89661/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0282 - accuracy: 0.9596  
Epoch 89662/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy: 0.9609  
Epoch 89663/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0285 - accuracy: 0.9603  
Epoch 89664/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9594  
Epoch 89665/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy: 0.9604  
Epoch 89666/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy: 0.9598  
Epoch 89667/100000

2/2 [=====] - 0s 117ms/step - loss: 0.0291 - accuracy:  
0.9591  
Epoch 89668/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0293 - accuracy:  
0.9604  
Epoch 89669/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0290 - accuracy:  
0.9594  
Epoch 89670/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0292 - accuracy:  
0.9596  
Epoch 89671/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy:  
0.9597  
Epoch 89672/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy:  
0.9597  
Epoch 89673/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy:  
0.9594  
Epoch 89674/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
0.9594  
Epoch 89675/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0291 - accuracy:  
0.9593  
Epoch 89676/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0287 - accuracy:  
0.9595  
Epoch 89677/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9599  
Epoch 89678/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0291 - accuracy:  
0.9593  
Epoch 89679/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9584  
Epoch 89680/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0288 - accuracy:  
0.9596  
Epoch 89681/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
0.9604  
Epoch 89682/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0285 - accuracy:  
0.9593  
Epoch 89683/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0289 - accuracy:  
0.9590  
Epoch 89684/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy:  
0.9593  
Epoch 89685/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy:  
0.9602  
Epoch 89686/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0286 - accuracy:  
0.9588  
Epoch 89687/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:  
0.9594  
Epoch 89688/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy:  
0.9601  
Epoch 89689/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9598  
Epoch 89690/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9599  
Epoch 89691/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy:  
0.9600  
Epoch 89692/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
0.9598  
Epoch 89693/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0290 - accuracy:  
0.9598  
Epoch 89694/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
0.9599  
Epoch 89695/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
0.9595  
Epoch 89696/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
0.9596  
Epoch 89697/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0281 - accuracy:  
0.9587  
Epoch 89698/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
0.9594  
Epoch 89699/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy: 0.9599  
Epoch 89700/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9593  
Epoch 89701/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy: 0.9584  
Epoch 89702/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy: 0.9600  
Epoch 89703/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy: 0.9592  
Epoch 89704/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy: 0.9606  
Epoch 89705/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy: 0.9599  
Epoch 89706/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0285 - accuracy: 0.9600  
Epoch 89707/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy: 0.9605  
Epoch 89708/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9595  
Epoch 89709/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy: 0.9603  
Epoch 89710/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy: 0.9584  
Epoch 89711/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy: 0.9586  
Epoch 89712/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy: 0.9596  
Epoch 89713/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy: 0.9595  
Epoch 89714/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy: 0.9594  
Epoch 89715/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
0.9599  
Epoch 89716/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy:  
0.9597  
Epoch 89717/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0295 - accuracy:  
0.9613  
Epoch 89718/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
0.9597  
Epoch 89719/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:  
0.9602  
Epoch 89720/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
0.9601  
Epoch 89721/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9600  
Epoch 89722/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
0.9592  
Epoch 89723/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
0.9596  
Epoch 89724/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9597  
Epoch 89725/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9597  
Epoch 89726/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
0.9602  
Epoch 89727/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0282 - accuracy:  
0.9589  
Epoch 89728/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
0.9615  
Epoch 89729/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
0.9598  
Epoch 89730/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
0.9599  
Epoch 89731/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
0.9601  
Epoch 89732/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0289 - accuracy:  
0.9599  
Epoch 89733/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
0.9594  
Epoch 89734/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy:  
0.9592  
Epoch 89735/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
0.9596  
Epoch 89736/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy:  
0.9594  
Epoch 89737/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0288 - accuracy:  
0.9602  
Epoch 89738/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9604  
Epoch 89739/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:  
0.9598  
Epoch 89740/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
0.9595  
Epoch 89741/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
0.9592  
Epoch 89742/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
0.9601  
Epoch 89743/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9597  
Epoch 89744/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy:  
0.9601  
Epoch 89745/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
0.9606  
Epoch 89746/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy:  
0.9598  
Epoch 89747/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy:  
0.9605  
Epoch 89748/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
0.9587  
Epoch 89749/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:  
0.9589  
Epoch 89750/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0291 - accuracy:  
0.9594  
Epoch 89751/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9596  
Epoch 89752/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9587  
Epoch 89753/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
0.9592  
Epoch 89754/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9590  
Epoch 89755/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
0.9609  
Epoch 89756/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:  
0.9601  
Epoch 89757/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9598  
Epoch 89758/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0293 - accuracy:  
0.9603  
Epoch 89759/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9596  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9591  
Epoch 90488/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:  
0.9587  
Epoch 90489/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
0.9596  
Epoch 90490/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0288 - accuracy:

0.9594  
Epoch 90491/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy:  
0.9597  
Epoch 90492/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0291 - accuracy:  
0.9596  
Epoch 90493/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0293 - accuracy:  
0.9605  
Epoch 90494/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9595  
Epoch 90495/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
0.9598  
Epoch 90496/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy:  
0.9590  
Epoch 90497/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy:  
0.9596  
Epoch 90498/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy:  
0.9590  
Epoch 90499/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:  
0.9597  
Epoch 90500/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy:  
0.9599  
Epoch 90501/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9598  
Epoch 90502/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy:  
0.9592  
Epoch 90503/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy:  
0.9591  
Epoch 90504/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0282 - accuracy:  
0.9585  
Epoch 90505/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9594  
Epoch 90506/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0282 - accuracy:

0.9603  
Epoch 90507/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0285 - accuracy: 0.9599  
Epoch 90508/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy: 0.9595  
Epoch 90509/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0281 - accuracy: 0.9600  
Epoch 90510/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9605  
Epoch 90511/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0285 - accuracy: 0.9600  
Epoch 90512/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0283 - accuracy: 0.9595  
Epoch 90513/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0282 - accuracy: 0.9596  
Epoch 90514/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0282 - accuracy: 0.9600  
Epoch 90515/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0290 - accuracy: 0.9603  
Epoch 90516/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy: 0.9593  
Epoch 90517/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy: 0.9595  
Epoch 90518/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy: 0.9590  
Epoch 90519/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy: 0.9594  
Epoch 90520/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0287 - accuracy: 0.9600  
Epoch 90521/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy: 0.9598  
Epoch 90522/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:

0.9602  
Epoch 90523/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy: 0.9598  
Epoch 90524/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0292 - accuracy: 0.9594  
Epoch 90525/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0293 - accuracy: 0.9600  
Epoch 90526/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy: 0.9602  
Epoch 90527/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy: 0.9600  
Epoch 90528/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy: 0.9599  
Epoch 90529/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0294 - accuracy: 0.9595  
Epoch 90530/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy: 0.9598  
Epoch 90531/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy: 0.9592  
Epoch 90532/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0290 - accuracy: 0.9595  
Epoch 90533/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy: 0.9592  
Epoch 90534/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0284 - accuracy: 0.9590  
Epoch 90535/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy: 0.9587  
Epoch 90536/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0287 - accuracy: 0.9600  
Epoch 90537/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy: 0.9593  
Epoch 90538/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:

0.9602  
 Epoch 90539/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy:  
 0.9595  
 Epoch 90540/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0283 - accuracy:  
 0.9589  
 Epoch 90541/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy:  
 0.9608  
 Epoch 90542/100000  
 2/2 [=====] - 0s 122ms/step - loss: 0.0288 - accuracy:  
 0.9604  
 Epoch 90543/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
 0.9603  
 Epoch 90544/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0283 - accuracy:  
 0.9591  
 Epoch 90545/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0282 - accuracy:  
 0.9595  
 Epoch 90546/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
 0.9606  
 Epoch 90547/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy:  
 0.9596  
 Epoch 90548/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy:  
 0.9593  
 Epoch 90549/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:  
 0.9605  
 Epoch 90550/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
 0.9593  
 Epoch 90551/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
 0.9597  
 Epoch 90552/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
 0.9591  
 Epoch 90553/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
 0.9600  
 Epoch 90554/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:

```

0.9597
Epoch 90555/100000
2/2 [=====] - 0s 118ms/step - loss: 0.0287 - accuracy:
0.9596
Epoch 90556/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:
0.9590
Epoch 90557/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:
0.9604
Epoch 90558/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:
0.9599
Epoch 90559/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:
0.9603
Epoch 90560/100000
2/2 [=====] - 0s 118ms/step - loss: 0.0292 - accuracy:
0.9597
Epoch 90561/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy:
0.9589
Epoch 90562/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy:
0.9601
Epoch 90563/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:
0.9591
Epoch 90564/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:
0.9601
Epoch 90565/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:
0.9601
Epoch 90566/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy:
0.9599
Epoch 90567/100000
2/2 [=====] - 0s 119ms/step - loss: 0.0284 - accuracy:
0.9600
Epoch 90568/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0282 - accuracy:
0.9594
Epoch 90569/100000
2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy:
0.9602
Epoch 90570/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0280 - accuracy:

```



0.9585  
Epoch 90571/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0281 - accuracy:  
0.9600  
Epoch 90572/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9613  
Epoch 90573/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:  
0.9610  
Epoch 90574/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
0.9594  
Epoch 90575/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0286 - accuracy:  
0.9603  
Epoch 90576/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy:  
0.9601  
Epoch 90577/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
0.9601  
Epoch 90578/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0287 - accuracy:  
0.9595  
Epoch 90579/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9589  
Epoch 90580/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy:  
0.9601  
Epoch 90581/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9599  
Epoch 90582/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9601  
Epoch 90583/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
0.9607  
Epoch 90584/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0285 - accuracy:  
0.9589  
Epoch 90585/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0291 - accuracy:  
0.9599  
Epoch 90586/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0291 - accuracy:

0.9599  
 Epoch 90587/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
 0.9604  
 Epoch 90588/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0295 - accuracy:  
 0.9594  
 Epoch 90589/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
 0.9587  
 Epoch 90590/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
 0.9601  
 Epoch 90591/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0291 - accuracy:  
 0.9605  
 Epoch 90592/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
 0.9602  
 Epoch 90593/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
 0.9597  
 Epoch 90594/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
 0.9599  
 Epoch 90595/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
 0.9597  
 Epoch 90596/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
 0.9598  
 Epoch 90597/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
 0.9593  
 Epoch 90598/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
 0.9596  
 Epoch 90599/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0293 - accuracy:  
 0.9592  
 Epoch 90600/100000  
 2/2 [=====] - 0s 120ms/step - loss: 0.0288 - accuracy:  
 0.9594  
 Epoch 90601/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
 0.9603  
 Epoch 90602/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:

0.9596  
 Epoch 90603/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
 0.9590  
 Epoch 90604/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
 0.9600  
 Epoch 90605/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0282 - accuracy:  
 0.9603  
 Epoch 90606/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:  
 0.9595  
 Epoch 90607/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0280 - accuracy:  
 0.9606  
 Epoch 90608/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0286 - accuracy:  
 0.9603  
 Epoch 90609/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0282 - accuracy:  
 0.9603  
 Epoch 90610/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy:  
 0.9599  
 Epoch 90611/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
 0.9599  
 Epoch 90612/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:  
 0.9606  
 Epoch 90613/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0285 - accuracy:  
 0.9595  
 Epoch 90614/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
 0.9599  
 Epoch 90615/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0280 - accuracy:  
 0.9592  
 Epoch 90616/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
 0.9599  
 Epoch 90617/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
 0.9597  
 Epoch 90618/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:

```

0.9595
Epoch 90619/100000
2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy:
0.9596
Epoch 90620/100000
2/2 [=====] - 0s 117ms/step - loss: 0.0288 - accuracy:
0.9601
Epoch 90621/100000
2/2 [=====] - 0s 118ms/step - loss: 0.0285 - accuracy:
0.9596
Epoch 90622/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:
0.9598
Epoch 90623/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:
0.9598
Epoch 90624/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:
0.9591
Epoch 90625/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy:
0.9604
Epoch 90626/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:
0.9589
Epoch 90627/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0281 - accuracy:
0.9593
Epoch 90628/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:
0.9594
Epoch 90629/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy:
0.9591
Epoch 90630/100000
2/2 [=====] - 0s 117ms/step - loss: 0.0289 - accuracy:
0.9600
Epoch 90631/100000
2/2 [=====] - 0s 116ms/step - loss: 0.0283 - accuracy:
0.9597
Epoch 90632/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0281 - accuracy:
0.9602
Epoch 90633/100000
2/2 [=====] - 0s 118ms/step - loss: 0.0284 - accuracy:
0.9600
Epoch 90634/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy:

```

0.9591  
Epoch 90635/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:  
0.9587  
Epoch 90636/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
0.9591  
Epoch 90637/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
0.9600  
Epoch 90638/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
0.9594  
Epoch 90639/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
0.9606  
Epoch 90640/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9592  
Epoch 90641/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy:  
0.9595  
Epoch 90642/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0282 - accuracy:  
0.9601  
Epoch 90643/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
0.9602  
Epoch 90644/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9603  
Epoch 90645/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
0.9604  
Epoch 90646/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0283 - accuracy:  
0.9589  
Epoch 90647/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
0.9604  
Epoch 90648/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0290 - accuracy:  
0.9600  
Epoch 90649/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9598  
Epoch 90650/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:

0.9599  
Epoch 90651/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0285 - accuracy:  
0.9586  
Epoch 90652/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
0.9590  
Epoch 90653/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0284 - accuracy:  
0.9590  
Epoch 90654/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9594  
Epoch 90655/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9604  
Epoch 90656/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy:  
0.9595  
Epoch 90657/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
0.9596  
Epoch 90658/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy:  
0.9592  
Epoch 90659/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0282 - accuracy:  
0.9604  
Epoch 90660/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9597  
Epoch 90661/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
0.9592  
Epoch 90662/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy:  
0.9597  
Epoch 90663/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:  
0.9587  
Epoch 90664/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9593  
Epoch 90665/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9601  
Epoch 90666/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:

0.9592  
 Epoch 90667/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
 0.9598  
 Epoch 90668/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
 0.9595  
 Epoch 90669/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0288 - accuracy:  
 0.9605  
 Epoch 90670/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
 0.9604  
 Epoch 90671/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
 0.9598  
 Epoch 90672/100000  
 2/2 [=====] - 0s 121ms/step - loss: 0.0283 - accuracy:  
 0.9589  
 Epoch 90673/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0282 - accuracy:  
 0.9592  
 Epoch 90674/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy:  
 0.9608  
 Epoch 90675/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy:  
 0.9595  
 Epoch 90676/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy:  
 0.9597  
 Epoch 90677/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
 0.9603  
 Epoch 90678/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
 0.9597  
 Epoch 90679/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
 0.9600  
 Epoch 90680/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0288 - accuracy:  
 0.9608  
 Epoch 90681/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy:  
 0.9593  
 Epoch 90682/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:

```

0.9594
Epoch 90683/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0282 - accuracy:
0.9589
Epoch 90684/100000
2/2 [=====] - 0s 119ms/step - loss: 0.0282 - accuracy:
0.9597
Epoch 90685/100000
2/2 [=====] - 0s 119ms/step - loss: 0.0285 - accuracy:
0.9605
Epoch 90686/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:
0.9595
Epoch 90687/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:
0.9591
Epoch 90688/100000
2/2 [=====] - 0s 116ms/step - loss: 0.0284 - accuracy:
0.9601
Epoch 90689/100000
2/2 [=====] - 0s 117ms/step - loss: 0.0286 - accuracy:
0.9597
Epoch 90690/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy:
0.9594
Epoch 90691/100000
2/2 [=====] - 0s 113ms/step - loss: 0.0285 - accuracy:
0.9594
Epoch 90692/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:
0.9599
Epoch 90693/100000
2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy:
0.9601
Epoch 90694/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:
0.9595
Epoch 90695/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:
0.9598
Epoch 90696/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:
0.9592
Epoch 90697/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:
0.9597
Epoch 90698/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:

```



0.9592  
Epoch 90699/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy:  
0.9593  
Epoch 90700/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:  
0.9594  
Epoch 90701/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0288 - accuracy:  
0.9594  
Epoch 90702/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy:  
0.9600  
2/2 [=====] - 0s 118ms/step - loss: 0.0284 - accuracy:  
0.9593  
Epoch 91429/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9597  
Epoch 91430/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9602  
Epoch 91431/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0286 - accuracy:  
0.9604  
Epoch 91432/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0291 - accuracy:  
0.9593  
Epoch 91433/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy:  
0.9597  
Epoch 91434/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9596  
Epoch 91435/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0289 - accuracy:  
0.9592  
Epoch 91436/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
0.9597  
Epoch 91437/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9596  
Epoch 91438/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
0.9607  
Epoch 91439/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9591

Epoch 91440/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0284 - accuracy:  
0.9596  
Epoch 91441/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0286 - accuracy:  
0.9592  
Epoch 91442/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9608  
Epoch 91443/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy:  
0.9589  
Epoch 91444/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
0.9614  
Epoch 91445/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9593  
Epoch 91446/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
0.9594  
Epoch 91447/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9595  
Epoch 91448/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9589  
Epoch 91449/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy:  
0.9588  
Epoch 91450/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0292 - accuracy:  
0.9592  
Epoch 91451/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9594  
Epoch 91452/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9598  
Epoch 91453/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9606  
Epoch 91454/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0303 - accuracy:  
0.9597  
Epoch 91455/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0289 - accuracy:  
0.9594

Epoch 91456/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0293 - accuracy:  
0.9598  
Epoch 91457/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
0.9597  
Epoch 91458/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9593  
Epoch 91459/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0288 - accuracy:  
0.9594  
Epoch 91460/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
0.9596  
Epoch 91461/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
0.9590  
Epoch 91462/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0282 - accuracy:  
0.9589  
Epoch 91463/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy:  
0.9588  
Epoch 91464/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0282 - accuracy:  
0.9595  
Epoch 91465/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9592  
Epoch 91466/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
0.9610  
Epoch 91467/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9607  
Epoch 91468/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
0.9599  
Epoch 91469/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0284 - accuracy:  
0.9603  
Epoch 91470/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy:  
0.9600  
Epoch 91471/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
0.9597

Epoch 91472/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9598  
Epoch 91473/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0287 - accuracy: 0.9594  
Epoch 91474/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy: 0.9593  
Epoch 91475/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy: 0.9599  
Epoch 91476/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy: 0.9603  
Epoch 91477/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy: 0.9590  
Epoch 91478/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy: 0.9601  
Epoch 91479/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9596  
Epoch 91480/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy: 0.9592  
Epoch 91481/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0285 - accuracy: 0.9589  
Epoch 91482/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy: 0.9601  
Epoch 91483/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0289 - accuracy: 0.9597  
Epoch 91484/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy: 0.9591  
Epoch 91485/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0282 - accuracy: 0.9593  
Epoch 91486/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0285 - accuracy: 0.9597  
Epoch 91487/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy: 0.9599

Epoch 91488/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy: 0.9593  
Epoch 91489/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy: 0.9597  
Epoch 91490/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0282 - accuracy: 0.9591  
Epoch 91491/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy: 0.9593  
Epoch 91492/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9603  
Epoch 91493/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy: 0.9595  
Epoch 91494/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0282 - accuracy: 0.9594  
Epoch 91495/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy: 0.9592  
Epoch 91496/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9605  
Epoch 91497/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy: 0.9594  
Epoch 91498/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0282 - accuracy: 0.9595  
Epoch 91499/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy: 0.9598  
Epoch 91500/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0283 - accuracy: 0.9592  
Epoch 91501/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0282 - accuracy: 0.9593  
Epoch 91502/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy: 0.9601  
Epoch 91503/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy: 0.9603

Epoch 91504/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
0.9606  
Epoch 91505/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0281 - accuracy:  
0.9594  
Epoch 91506/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0282 - accuracy:  
0.9603  
Epoch 91507/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9588  
Epoch 91508/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9601  
Epoch 91509/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy:  
0.9592  
Epoch 91510/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy:  
0.9596  
Epoch 91511/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:  
0.9609  
Epoch 91512/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9589  
Epoch 91513/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9603  
Epoch 91514/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9601  
Epoch 91515/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy:  
0.9596  
Epoch 91516/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
0.9586  
Epoch 91517/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9599  
Epoch 91518/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy:  
0.9607  
Epoch 91519/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0292 - accuracy:  
0.9595

Epoch 91520/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy: 0.9601  
Epoch 91521/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy: 0.9597  
Epoch 91522/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy: 0.9604  
Epoch 91523/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy: 0.9595  
Epoch 91524/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy: 0.9599  
Epoch 91525/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0284 - accuracy: 0.9601  
Epoch 91526/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy: 0.9590  
Epoch 91527/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0290 - accuracy: 0.9608  
Epoch 91528/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy: 0.9590  
Epoch 91529/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy: 0.9597  
Epoch 91530/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy: 0.9594  
Epoch 91531/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0288 - accuracy: 0.9590  
Epoch 91532/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy: 0.9600  
Epoch 91533/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy: 0.9595  
Epoch 91534/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy: 0.9595  
Epoch 91535/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0290 - accuracy: 0.9596

Epoch 91536/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy: 0.9593  
Epoch 91537/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy: 0.9600  
Epoch 91538/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy: 0.9598  
Epoch 91539/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy: 0.9601  
Epoch 91540/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0287 - accuracy: 0.9599  
Epoch 91541/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9596  
Epoch 91542/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy: 0.9598  
Epoch 91543/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0288 - accuracy: 0.9591  
Epoch 91544/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy: 0.9595  
Epoch 91545/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0282 - accuracy: 0.9596  
Epoch 91546/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0285 - accuracy: 0.9598  
Epoch 91547/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0280 - accuracy: 0.9600  
Epoch 91548/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy: 0.9597  
Epoch 91549/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy: 0.9591  
Epoch 91550/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9594  
Epoch 91551/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy: 0.9600



Epoch 91552/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy: 0.9588  
Epoch 91553/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy: 0.9597  
Epoch 91554/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0282 - accuracy: 0.9600  
Epoch 91555/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy: 0.9581  
Epoch 91556/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy: 0.9594  
Epoch 91557/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0283 - accuracy: 0.9598  
Epoch 91558/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy: 0.9592  
Epoch 91559/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0282 - accuracy: 0.9595  
Epoch 91560/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy: 0.9593  
Epoch 91561/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0281 - accuracy: 0.9591  
Epoch 91562/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9592  
Epoch 91563/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy: 0.9594  
Epoch 91564/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy: 0.9603  
Epoch 91565/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy: 0.9591  
Epoch 91566/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy: 0.9594  
Epoch 91567/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy: 0.9597

Epoch 91568/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0291 - accuracy: 0.9592  
Epoch 91569/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0290 - accuracy: 0.9598  
Epoch 91570/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0304 - accuracy: 0.9595  
Epoch 91571/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy: 0.9588  
Epoch 91572/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0294 - accuracy: 0.9597  
Epoch 91573/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0297 - accuracy: 0.9603  
Epoch 91574/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy: 0.9595  
Epoch 91575/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0288 - accuracy: 0.9605  
Epoch 91576/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy: 0.9601  
Epoch 91577/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy: 0.9594  
Epoch 91578/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0290 - accuracy: 0.9594  
Epoch 91579/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0286 - accuracy: 0.9590  
Epoch 91580/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy: 0.9605  
Epoch 91581/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0284 - accuracy: 0.9599  
Epoch 91582/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy: 0.9604  
Epoch 91583/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy: 0.9598

Epoch 91584/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy: 0.9590  
Epoch 91585/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9600  
Epoch 91586/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy: 0.9604  
Epoch 91587/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0290 - accuracy: 0.9596  
Epoch 91588/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9587  
Epoch 91589/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy: 0.9591  
Epoch 91590/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy: 0.9604  
Epoch 91591/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy: 0.9609  
Epoch 91592/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy: 0.9603  
Epoch 91593/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy: 0.9594  
Epoch 91594/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0293 - accuracy: 0.9598  
Epoch 91595/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy: 0.9598  
Epoch 91596/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy: 0.9594  
Epoch 91597/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy: 0.9591  
Epoch 91598/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0286 - accuracy: 0.9600  
Epoch 91599/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9593

Epoch 91600/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy:  
0.9606  
Epoch 91601/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9607  
Epoch 91602/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0286 - accuracy:  
0.9599  
Epoch 91603/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0292 - accuracy:  
0.9599  
Epoch 91604/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9592  
Epoch 91605/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9596  
Epoch 91606/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9596  
Epoch 91607/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9604  
Epoch 91608/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0284 - accuracy:  
0.9595  
Epoch 91609/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0287 - accuracy:  
0.9601  
Epoch 91610/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy:  
0.9595  
Epoch 91611/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy:  
0.9590  
Epoch 91612/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0282 - accuracy:  
0.9593  
Epoch 91613/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0283 - accuracy:  
0.9589  
Epoch 91614/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0282 - accuracy:  
0.9602  
Epoch 91615/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0282 - accuracy:  
0.9595

Epoch 91616/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0280 - accuracy: 0.9593

Epoch 91617/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0281 - accuracy: 0.9603

Epoch 91618/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0285 - accuracy: 0.9590

Epoch 91619/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy: 0.9595

Epoch 91620/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy: 0.9596

Epoch 91621/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9591

Epoch 91622/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9594

Epoch 91623/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy: 0.9594

Epoch 91624/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9602

Epoch 91625/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0286 - accuracy: 0.9590

Epoch 91626/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy: 0.9600

Epoch 91627/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy: 0.9601

Epoch 91628/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy: 0.9597

Epoch 91629/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0299 - accuracy: 0.9602

Epoch 91630/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0292 - accuracy: 0.9596

Epoch 91631/100000  
2/2 [=====] - 0s 130ms/step - loss: 0.0287 - accuracy: 0.9597

Epoch 91632/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0286 - accuracy:  
0.9601  
Epoch 91633/100000  
2/2 [=====] - 0s 127ms/step - loss: 0.0290 - accuracy:  
0.9593  
Epoch 91634/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0299 - accuracy:  
0.9603  
Epoch 91635/100000  
2/2 [=====] - 0s 133ms/step - loss: 0.0287 - accuracy:  
0.9596  
Epoch 91636/100000  
2/2 [=====] - 0s 132ms/step - loss: 0.0287 - accuracy:  
0.9598  
Epoch 91637/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0285 - accuracy:  
0.9592  
Epoch 91638/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
0.9597  
Epoch 91639/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
0.9590  
Epoch 91640/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0288 - accuracy:  
0.9604  
Epoch 91641/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy:  
0.9590  
Epoch 91642/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9594  
Epoch 91643/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
0.9594  
Epoch 91644/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
0.9599  
Epoch 91645/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9594  
Epoch 91646/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
0.9600  
Epoch 91647/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9598

Epoch 92382/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy: 0.9596  
Epoch 92383/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0286 - accuracy: 0.9587  
Epoch 92384/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0283 - accuracy: 0.9596  
Epoch 92385/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy: 0.9594  
Epoch 92386/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy: 0.9610  
Epoch 92387/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0292 - accuracy: 0.9593  
Epoch 92388/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9603  
Epoch 92389/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0299 - accuracy: 0.9596  
Epoch 92390/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9603  
Epoch 92391/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9605  
Epoch 92392/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy: 0.9595  
Epoch 92393/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy: 0.9587  
Epoch 92394/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy: 0.9596  
Epoch 92395/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy: 0.9595  
Epoch 92396/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0290 - accuracy: 0.9592  
Epoch 92397/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy: 0.9594

Epoch 92398/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9612  
Epoch 92399/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy: 0.9603  
Epoch 92400/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0281 - accuracy: 0.9592  
Epoch 92401/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0282 - accuracy: 0.9589  
Epoch 92402/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy: 0.9607  
Epoch 92403/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0284 - accuracy: 0.9601  
Epoch 92404/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9592  
Epoch 92405/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9597  
Epoch 92406/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy: 0.9597  
Epoch 92407/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy: 0.9602  
Epoch 92408/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy: 0.9593  
Epoch 92409/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy: 0.9598  
Epoch 92410/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy: 0.9588  
Epoch 92411/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy: 0.9597  
Epoch 92412/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy: 0.9595  
Epoch 92413/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy: 0.9598



Epoch 92414/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy: 0.9591  
Epoch 92415/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0283 - accuracy: 0.9595  
Epoch 92416/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0288 - accuracy: 0.9598  
Epoch 92417/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy: 0.9594  
Epoch 92418/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0281 - accuracy: 0.9591  
Epoch 92419/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0282 - accuracy: 0.9598  
Epoch 92420/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0278 - accuracy: 0.9595  
Epoch 92421/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy: 0.9595  
Epoch 92422/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0290 - accuracy: 0.9599  
Epoch 92423/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0283 - accuracy: 0.9594  
Epoch 92424/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9584  
Epoch 92425/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy: 0.9592  
Epoch 92426/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy: 0.9591  
Epoch 92427/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy: 0.9593  
Epoch 92428/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy: 0.9593  
Epoch 92429/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0282 - accuracy: 0.9604

Epoch 92430/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0281 - accuracy:  
0.9590  
Epoch 92431/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0286 - accuracy:  
0.9599  
Epoch 92432/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0285 - accuracy:  
0.9590  
Epoch 92433/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
0.9592  
Epoch 92434/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy:  
0.9597  
Epoch 92435/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0291 - accuracy:  
0.9598  
Epoch 92436/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0291 - accuracy:  
0.9597  
Epoch 92437/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0295 - accuracy:  
0.9591  
Epoch 92438/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0293 - accuracy:  
0.9595  
Epoch 92439/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy:  
0.9597  
Epoch 92440/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9594  
Epoch 92441/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy:  
0.9590  
Epoch 92442/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0294 - accuracy:  
0.9592  
Epoch 92443/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
0.9597  
Epoch 92444/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0284 - accuracy:  
0.9590  
Epoch 92445/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
0.9593

Epoch 92446/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0288 - accuracy:  
0.9598  
Epoch 92447/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy:  
0.9590  
Epoch 92448/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0285 - accuracy:  
0.9594  
Epoch 92449/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0282 - accuracy:  
0.9593  
Epoch 92450/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9607  
Epoch 92451/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9595  
Epoch 92452/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy:  
0.9598  
Epoch 92453/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
0.9595  
Epoch 92454/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
0.9595  
Epoch 92455/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9599  
Epoch 92456/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
0.9596  
Epoch 92457/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy:  
0.9588  
Epoch 92458/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
0.9585  
Epoch 92459/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0287 - accuracy:  
0.9597  
Epoch 92460/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy:  
0.9601  
Epoch 92461/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy:  
0.9584

Epoch 92462/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0282 - accuracy: 0.9597

Epoch 92463/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0283 - accuracy: 0.9605

Epoch 92464/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0282 - accuracy: 0.9590

Epoch 92465/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy: 0.9586

Epoch 92466/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy: 0.9606

Epoch 92467/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy: 0.9605

Epoch 92468/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy: 0.9600

Epoch 92469/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy: 0.9583

Epoch 92470/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0296 - accuracy: 0.9608

Epoch 92471/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy: 0.9600

Epoch 92472/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy: 0.9593

Epoch 92473/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy: 0.9585

Epoch 92474/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy: 0.9598

Epoch 92475/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy: 0.9591

Epoch 92476/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9592

Epoch 92477/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0290 - accuracy: 0.9585

Epoch 92478/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy: 0.9599  
Epoch 92479/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy: 0.9584  
Epoch 92480/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy: 0.9600  
Epoch 92481/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy: 0.9593  
Epoch 92482/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0286 - accuracy: 0.9590  
Epoch 92483/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy: 0.9595  
Epoch 92484/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy: 0.9601  
Epoch 92485/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy: 0.9600  
Epoch 92486/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy: 0.9591  
Epoch 92487/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0284 - accuracy: 0.9595  
Epoch 92488/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9603  
Epoch 92489/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0287 - accuracy: 0.9606  
Epoch 92490/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0280 - accuracy: 0.9595  
Epoch 92491/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy: 0.9586  
Epoch 92492/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy: 0.9594  
Epoch 92493/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0292 - accuracy: 0.9593

Epoch 92494/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy: 0.9600  
Epoch 92495/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0289 - accuracy: 0.9591  
Epoch 92496/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy: 0.9592  
Epoch 92497/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy: 0.9589  
Epoch 92498/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy: 0.9591  
Epoch 92499/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy: 0.9600  
Epoch 92500/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9594  
Epoch 92501/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy: 0.9593  
Epoch 92502/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9608  
Epoch 92503/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy: 0.9590  
Epoch 92504/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9594  
Epoch 92505/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy: 0.9591  
Epoch 92506/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy: 0.9591  
Epoch 92507/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy: 0.9596  
Epoch 92508/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0292 - accuracy: 0.9594  
Epoch 92509/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy: 0.9596

Epoch 92510/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
0.9601  
Epoch 92511/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy:  
0.9593  
Epoch 92512/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9595  
Epoch 92513/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0287 - accuracy:  
0.9591  
Epoch 92514/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:  
0.9599  
Epoch 92515/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9598  
Epoch 92516/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
0.9589  
Epoch 92517/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0284 - accuracy:  
0.9589  
Epoch 92518/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy:  
0.9595  
Epoch 92519/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
0.9599  
Epoch 92520/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9595  
Epoch 92521/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0292 - accuracy:  
0.9597  
Epoch 92522/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0289 - accuracy:  
0.9601  
Epoch 92523/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy:  
0.9593  
Epoch 92524/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
0.9596  
Epoch 92525/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
0.9590

Epoch 92526/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0281 - accuracy:  
0.9586  
Epoch 92527/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy:  
0.9587  
Epoch 92528/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
0.9592  
Epoch 92529/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0283 - accuracy:  
0.9599  
Epoch 92530/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:  
0.9610  
Epoch 92531/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy:  
0.9592  
Epoch 92532/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0287 - accuracy:  
0.9602  
Epoch 92533/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9594  
Epoch 92534/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
0.9590  
Epoch 92535/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy:  
0.9606  
Epoch 92536/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy:  
0.9599  
Epoch 92537/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0284 - accuracy:  
0.9590  
Epoch 92538/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:  
0.9588  
Epoch 92539/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
0.9609  
Epoch 92540/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9588  
Epoch 92541/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
0.9590



Epoch 92542/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy: 0.9599  
Epoch 92543/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy: 0.9600  
Epoch 92544/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy: 0.9596  
Epoch 92545/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy: 0.9593  
Epoch 92546/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy: 0.9594  
Epoch 92547/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0284 - accuracy: 0.9607  
Epoch 92548/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0282 - accuracy: 0.9596  
Epoch 92549/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0282 - accuracy: 0.9587  
Epoch 92550/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9603  
Epoch 92551/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy: 0.9599  
Epoch 92552/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0286 - accuracy: 0.9598  
Epoch 92553/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy: 0.9604  
Epoch 92554/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy: 0.9601  
Epoch 92555/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy: 0.9603  
Epoch 92556/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0284 - accuracy: 0.9589  
Epoch 92557/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy: 0.9583

Epoch 92558/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy: 0.9599  
Epoch 92559/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy: 0.9599  
Epoch 92560/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0303 - accuracy: 0.9591  
Epoch 92561/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy: 0.9585  
Epoch 92562/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy: 0.9601  
Epoch 92563/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy: 0.9597  
Epoch 92564/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy: 0.9596  
Epoch 92565/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0287 - accuracy: 0.9592  
Epoch 92566/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9593  
Epoch 92567/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9593  
Epoch 92568/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy: 0.9584  
Epoch 92569/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0286 - accuracy: 0.9593  
Epoch 92570/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy: 0.9590  
Epoch 92571/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy: 0.9596  
Epoch 92572/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0283 - accuracy: 0.9599  
Epoch 92573/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0291 - accuracy: 0.9598

Epoch 92574/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9596  
Epoch 92575/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy: 0.9592  
Epoch 92576/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy: 0.9603  
Epoch 92577/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0281 - accuracy: 0.9595  
Epoch 92578/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy: 0.9595  
Epoch 92579/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0282 - accuracy: 0.9588  
Epoch 92580/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy: 0.9586  
Epoch 92581/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy: 0.9597  
Epoch 92582/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy: 0.9598  
Epoch 92583/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy: 0.9592  
Epoch 92584/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy: 0.9587  
Epoch 92585/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy: 0.9604  
Epoch 92586/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy: 0.9594  
Epoch 92587/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9598  
Epoch 92588/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0291 - accuracy: 0.9599  
Epoch 92589/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy: 0.9596

Epoch 92590/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9597  
Epoch 92591/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy:  
0.9590  
Epoch 92592/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9613  
Epoch 92593/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
0.9608  
Epoch 92594/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:  
0.9602  
Epoch 92595/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0283 - accuracy:  
0.9600  
Epoch 92596/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
0.9596  
Epoch 92597/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
0.9596  
Epoch 92598/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
0.9596  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:  
0.9599  
Epoch 92965/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0301 - accuracy:  
0.9594  
Epoch 92966/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0294 - accuracy:  
0.9594  
Epoch 92967/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy:  
0.9595  
Epoch 92968/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy:  
0.9594  
Epoch 92969/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy:  
0.9590  
Epoch 92970/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0289 - accuracy:  
0.9595  
Epoch 92971/100000

2/2 [=====] - 0s 120ms/step - loss: 0.0290 - accuracy: 0.9594  
Epoch 92972/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy: 0.9596  
Epoch 92973/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy: 0.9600  
Epoch 92974/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy: 0.9600  
Epoch 92975/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9590  
Epoch 92976/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy: 0.9597  
Epoch 92977/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0287 - accuracy: 0.9597  
Epoch 92978/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9598  
Epoch 92979/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy: 0.9592  
Epoch 92980/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0281 - accuracy: 0.9587  
Epoch 92981/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy: 0.9594  
Epoch 92982/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0281 - accuracy: 0.9590  
Epoch 92983/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy: 0.9589  
Epoch 92984/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy: 0.9586  
Epoch 92985/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0285 - accuracy: 0.9603  
Epoch 92986/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy: 0.9591  
Epoch 92987/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0280 - accuracy: 0.9598  
Epoch 92988/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy: 0.9604  
Epoch 92989/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy: 0.9594  
Epoch 92990/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0285 - accuracy: 0.9596  
Epoch 92991/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0282 - accuracy: 0.9593  
Epoch 92992/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy: 0.9598  
Epoch 92993/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0280 - accuracy: 0.9589  
Epoch 92994/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy: 0.9607  
Epoch 92995/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy: 0.9598  
Epoch 92996/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy: 0.9599  
Epoch 92997/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy: 0.9587  
Epoch 92998/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0282 - accuracy: 0.9597  
Epoch 92999/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0289 - accuracy: 0.9594  
Epoch 93000/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0282 - accuracy: 0.9595  
Epoch 93001/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy: 0.9596  
Epoch 93002/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy: 0.9603  
Epoch 93003/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0290 - accuracy:  
0.9591  
Epoch 93004/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy:  
0.9593  
Epoch 93005/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy:  
0.9595  
Epoch 93006/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
0.9592  
Epoch 93007/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0282 - accuracy:  
0.9588  
Epoch 93008/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0284 - accuracy:  
0.9604  
Epoch 93009/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
0.9602  
Epoch 93010/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9602  
Epoch 93011/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0286 - accuracy:  
0.9605  
Epoch 93012/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9591  
Epoch 93013/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
0.9592  
Epoch 93014/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
0.9595  
Epoch 93015/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9588  
Epoch 93016/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy:  
0.9593  
Epoch 93017/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy:  
0.9595  
Epoch 93018/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0283 - accuracy:  
0.9595  
Epoch 93019/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0285 - accuracy:  
0.9593  
Epoch 93020/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
0.9592  
Epoch 93021/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9608  
Epoch 93022/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
0.9594  
Epoch 93023/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0288 - accuracy:  
0.9597  
Epoch 93024/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
0.9586  
Epoch 93025/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0286 - accuracy:  
0.9596  
Epoch 93026/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0281 - accuracy:  
0.9595  
Epoch 93027/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0283 - accuracy:  
0.9599  
Epoch 93028/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
0.9589  
Epoch 93029/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
0.9586  
Epoch 93030/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9598  
Epoch 93031/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy:  
0.9601  
Epoch 93032/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy:  
0.9600  
Epoch 93033/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
0.9595  
Epoch 93034/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0290 - accuracy:  
0.9593  
Epoch 93035/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
0.9603  
Epoch 93036/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
0.9591  
Epoch 93037/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0291 - accuracy:  
0.9596  
Epoch 93038/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9596  
Epoch 93039/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy:  
0.9606  
Epoch 93040/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:  
0.9599  
Epoch 93041/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9596  
Epoch 93042/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9598  
Epoch 93043/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy:  
0.9598  
Epoch 93044/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy:  
0.9599  
Epoch 93045/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0282 - accuracy:  
0.9588  
Epoch 93046/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9598  
Epoch 93047/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy:  
0.9592  
Epoch 93048/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9600  
Epoch 93049/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
0.9603  
Epoch 93050/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
0.9606  
Epoch 93051/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy: 0.9601  
Epoch 93052/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy: 0.9597  
Epoch 93053/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9594  
Epoch 93054/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9600  
Epoch 93055/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0282 - accuracy: 0.9598  
Epoch 93056/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0285 - accuracy: 0.9600  
Epoch 93057/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0282 - accuracy: 0.9594  
Epoch 93058/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9595  
Epoch 93059/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy: 0.9595  
Epoch 93060/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0296 - accuracy: 0.9592  
Epoch 93061/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0292 - accuracy: 0.9583  
Epoch 93062/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy: 0.9592  
Epoch 93063/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0285 - accuracy: 0.9597  
Epoch 93064/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9590  
Epoch 93065/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9598  
Epoch 93066/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0280 - accuracy: 0.9604  
Epoch 93067/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0282 - accuracy:  
0.9590  
Epoch 93068/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0281 - accuracy:  
0.9593  
Epoch 93069/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy:  
0.9597  
Epoch 93070/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0282 - accuracy:  
0.9595  
Epoch 93071/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9591  
Epoch 93072/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
0.9595  
Epoch 93073/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0282 - accuracy:  
0.9599  
Epoch 93074/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
0.9596  
Epoch 93075/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
0.9596  
Epoch 93076/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
0.9598  
Epoch 93077/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:  
0.9592  
Epoch 93078/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
0.9590  
Epoch 93079/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0280 - accuracy:  
0.9599  
Epoch 93080/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
0.9600  
Epoch 93081/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy:  
0.9601  
Epoch 93082/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0282 - accuracy:  
0.9591  
Epoch 93083/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy: 0.9596  
Epoch 93084/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0287 - accuracy: 0.9599  
Epoch 93085/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0289 - accuracy: 0.9586  
Epoch 93086/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9601  
Epoch 93087/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0291 - accuracy: 0.9595  
Epoch 93088/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy: 0.9592  
Epoch 93089/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0293 - accuracy: 0.9607  
Epoch 93090/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy: 0.9594  
Epoch 93091/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy: 0.9593  
Epoch 93092/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy: 0.9609  
Epoch 93093/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy: 0.9594  
Epoch 93094/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy: 0.9602  
Epoch 93095/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0285 - accuracy: 0.9603  
Epoch 93096/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy: 0.9600  
Epoch 93097/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy: 0.9589  
Epoch 93098/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9596  
Epoch 93099/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy: 0.9592  
Epoch 93100/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy: 0.9592  
Epoch 93101/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy: 0.9600  
Epoch 93102/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9590  
Epoch 93103/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy: 0.9600  
Epoch 93104/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy: 0.9597  
Epoch 93105/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0284 - accuracy: 0.9590  
Epoch 93106/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy: 0.9602  
Epoch 93107/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy: 0.9593  
Epoch 93108/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy: 0.9600  
Epoch 93109/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0282 - accuracy: 0.9596  
Epoch 93110/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy: 0.9607  
Epoch 93111/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy: 0.9592  
Epoch 93112/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy: 0.9602  
Epoch 93113/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy: 0.9594  
Epoch 93114/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9591  
Epoch 93115/100000

2/2 [=====] - 0s 118ms/step - loss: 0.0285 - accuracy:  
0.9596  
Epoch 93116/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy:  
0.9589  
Epoch 93117/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9602  
Epoch 93118/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9600  
Epoch 93119/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
0.9596  
Epoch 93120/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy:  
0.9603  
Epoch 93121/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0295 - accuracy:  
0.9594  
Epoch 93122/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9607  
Epoch 93123/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy:  
0.9596  
Epoch 93124/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
0.9585  
Epoch 93125/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
0.9601  
Epoch 93126/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
0.9601  
Epoch 93127/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
0.9588  
Epoch 93128/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9583  
Epoch 93129/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9600  
Epoch 93130/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
0.9608  
Epoch 93131/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy: 0.9587  
Epoch 93132/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy: 0.9593  
Epoch 93133/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy: 0.9602  
Epoch 93134/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy: 0.9596  
Epoch 93135/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy: 0.9594  
Epoch 93136/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0291 - accuracy: 0.9600  
Epoch 93137/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0295 - accuracy: 0.9598  
Epoch 93138/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy: 0.9610  
Epoch 93139/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0292 - accuracy: 0.9594  
Epoch 93140/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy: 0.9595  
Epoch 93141/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy: 0.9588  
Epoch 93142/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy: 0.9607  
Epoch 93143/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy: 0.9593  
Epoch 93144/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy: 0.9595  
Epoch 93145/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy: 0.9593  
Epoch 93146/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0288 - accuracy: 0.9601  
Epoch 93147/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
0.9602  
Epoch 93148/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0282 - accuracy:  
0.9588  
Epoch 93149/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9597  
Epoch 93150/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
0.9593  
Epoch 93151/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy:  
0.9591  
Epoch 93152/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0282 - accuracy:  
0.9588  
Epoch 93153/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0281 - accuracy:  
0.9592  
Epoch 93154/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0281 - accuracy:  
0.9598  
Epoch 93155/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0278 - accuracy:  
0.9588  
Epoch 93156/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
0.9597  
Epoch 93157/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
0.9595  
Epoch 93158/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
0.9598  
Epoch 93159/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:  
0.9596  
Epoch 93160/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
0.9597  
Epoch 93161/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy:  
0.9591  
Epoch 93162/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0287 - accuracy:  
0.9598  
Epoch 93163/100000



2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy: 0.9595  
Epoch 93164/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0282 - accuracy: 0.9602  
Epoch 93165/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy: 0.9595  
Epoch 93166/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0281 - accuracy: 0.9590  
Epoch 93167/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy: 0.9603  
Epoch 93168/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy: 0.9607  
Epoch 93169/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9597  
Epoch 93170/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9589  
Epoch 93171/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0289 - accuracy: 0.9597  
Epoch 93172/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9600  
Epoch 93173/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9591  
Epoch 93174/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0287 - accuracy: 0.9589  
Epoch 93175/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy: 0.9598  
Epoch 93176/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy: 0.9609  
Epoch 93177/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy: 0.9603  
Epoch 93178/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9588  
Epoch 93179/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
0.9591  
Epoch 93180/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9603  
Epoch 93181/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
0.9606  
Epoch 93182/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0290 - accuracy:  
0.9599  
Epoch 93183/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9608  
Epoch 93184/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy:  
0.9598  
Epoch 93185/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy:  
0.9590  
Epoch 93186/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0296 - accuracy:  
0.9601  
Epoch 93187/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
0.9591  
Epoch 93188/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
0.9591  
Epoch 93189/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
0.9587  
Epoch 93190/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0287 - accuracy:  
0.9587  
Epoch 93191/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9589  
Epoch 93192/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy:  
0.9600  
Epoch 93193/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9596  
Epoch 93194/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
0.9603  
Epoch 93195/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy: 0.9597  
Epoch 93196/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0281 - accuracy: 0.9588  
Epoch 93197/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy: 0.9592  
Epoch 93198/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0283 - accuracy: 0.9611  
Epoch 93199/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy: 0.9597  
Epoch 93200/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy: 0.9595  
Epoch 93201/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy: 0.9601  
Epoch 93202/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy: 0.9597  
Epoch 93203/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0278 - accuracy: 0.9593  
Epoch 93204/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy: 0.9602  
Epoch 93205/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy: 0.9598  
Epoch 93206/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0280 - accuracy: 0.9590  
Epoch 93207/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0282 - accuracy: 0.9599  
Epoch 93208/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy: 0.9600  
Epoch 93209/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0286 - accuracy: 0.9589  
Epoch 93210/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy: 0.9593  
Epoch 93211/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0281 - accuracy:  
0.9589  
Epoch 93212/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
0.9585  
Epoch 93213/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
0.9599  
Epoch 93214/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:  
0.9589  
Epoch 93215/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9589  
Epoch 93216/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy:  
0.9596  
Epoch 93217/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9597  
Epoch 93218/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy:  
0.9597  
Epoch 93219/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0287 - accuracy:  
0.9589  
Epoch 93220/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9595  
Epoch 93221/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy:  
0.9600  
Epoch 93222/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0285 - accuracy:  
0.9597  
Epoch 93223/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9596  
Epoch 93224/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy:  
0.9591  
Epoch 93225/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
0.9588  
Epoch 93226/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9596  
Epoch 93227/100000

2/2 [=====] - 0s 116ms/step - loss: 0.0281 - accuracy:  
0.9586  
Epoch 93228/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0281 - accuracy:  
0.9595  
Epoch 93229/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0284 - accuracy:  
0.9586  
Epoch 93230/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9602  
Epoch 93231/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
0.9593  
Epoch 93232/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0291 - accuracy:  
0.9586  
Epoch 93233/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9599  
Epoch 93234/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0295 - accuracy:  
0.9604  
Epoch 93235/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy:  
0.9594  
Epoch 93236/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0287 - accuracy:  
0.9597  
Epoch 93237/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9603  
Epoch 93238/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0286 - accuracy:  
0.9599  
Epoch 93239/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9595  
Epoch 93240/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9599  
Epoch 93241/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9594  
Epoch 93242/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9596  
Epoch 93243/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
0.9593  
Epoch 93244/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0288 - accuracy:  
0.9601  
Epoch 93245/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
0.9598  
Epoch 93246/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
0.9594  
Epoch 93247/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy:  
0.9594  
Epoch 93248/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy:  
0.9591  
Epoch 93249/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9607  
Epoch 93250/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
0.9603  
Epoch 93251/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
0.9590  
Epoch 93252/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy:  
0.9597  
Epoch 93253/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0299 - accuracy:  
0.9605  
Epoch 93254/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
0.9600  
Epoch 93255/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy:  
0.9590  
Epoch 93256/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy:  
0.9605  
Epoch 93257/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
0.9593  
Epoch 93258/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9602  
Epoch 93259/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9604  
Epoch 93260/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy:  
0.9595  
Epoch 93261/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
0.9594  
Epoch 93262/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
0.9594  
Epoch 93263/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
0.9604  
Epoch 93264/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9590  
Epoch 93265/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0285 - accuracy:  
0.9600  
Epoch 93266/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0281 - accuracy:  
0.9600  
Epoch 93267/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0280 - accuracy:  
0.9594  
Epoch 93268/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0281 - accuracy:  
0.9602  
Epoch 93269/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
0.9594  
Epoch 93270/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:  
0.9595  
Epoch 93271/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:  
0.9597  
Epoch 93272/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0282 - accuracy:  
0.9604  
Epoch 93273/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
0.9608  
Epoch 93274/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:  
0.9595  
Epoch 93275/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0281 - accuracy:  
0.9594  
Epoch 93276/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0281 - accuracy:  
0.9593  
Epoch 93277/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0284 - accuracy:  
0.9594  
Epoch 93278/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9597  
Epoch 93279/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
0.9603  
Epoch 93280/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0285 - accuracy:  
0.9593  
Epoch 93281/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0283 - accuracy:  
0.9595  
Epoch 93282/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0283 - accuracy:  
0.9593  
Epoch 93283/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
0.9589  
Epoch 93284/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0281 - accuracy:  
0.9594  
Epoch 93285/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0282 - accuracy:  
0.9605  
Epoch 93286/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
0.9601  
Epoch 93287/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9598  
Epoch 93288/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9595  
Epoch 93289/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy:  
0.9601  
Epoch 93290/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
0.9586  
Epoch 93291/100000



2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy:  
0.9594  
Epoch 93292/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0291 - accuracy:  
0.9595  
Epoch 93293/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy:  
0.9590  
Epoch 93294/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0287 - accuracy:  
0.9596  
Epoch 93295/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
0.9586  
Epoch 93296/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy:  
0.9604  
Epoch 93297/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
0.9594  
Epoch 93298/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9596  
Epoch 93299/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy:  
0.9598  
Epoch 93300/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0285 - accuracy:  
0.9604  
Epoch 93301/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0289 - accuracy:  
0.9599  
Epoch 93302/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
0.9597  
Epoch 93303/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0290 - accuracy:  
0.9605  
Epoch 93304/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
0.9589  
Epoch 93305/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
0.9601  
Epoch 93306/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0295 - accuracy:  
0.9598  
Epoch 93307/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
0.9606  
Epoch 93308/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy:  
0.9592  
Epoch 93309/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9589  
Epoch 93310/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0290 - accuracy:  
0.9599  
Epoch 93311/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0291 - accuracy:  
0.9598  
Epoch 93312/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
0.9596  
Epoch 93313/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0281 - accuracy:  
0.9586  
Epoch 93314/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0284 - accuracy:  
0.9607  
Epoch 93315/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy:  
0.9593  
Epoch 93316/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0279 - accuracy:  
0.9587  
Epoch 93317/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0281 - accuracy:  
0.9591  
Epoch 93318/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0281 - accuracy:  
0.9594  
Epoch 93319/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0282 - accuracy:  
0.9590  
Epoch 93320/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0282 - accuracy:  
0.9596  
Epoch 93321/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
0.9597  
Epoch 93322/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9611  
Epoch 93323/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
0.9600  
Epoch 93324/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy:  
0.9590  
Epoch 93325/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0282 - accuracy:  
0.9582  
Epoch 93326/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:  
0.9587  
Epoch 93327/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0281 - accuracy:  
0.9595  
Epoch 93328/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
0.9607  
Epoch 93329/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0286 - accuracy:  
0.9590  
Epoch 93330/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy:  
0.9595  
Epoch 93331/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy:  
0.9585  
Epoch 93332/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0279 - accuracy:  
0.9590  
Epoch 93333/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0281 - accuracy:  
0.9597  
Epoch 93334/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0281 - accuracy:  
0.9600  
Epoch 93335/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:  
0.9593  
Epoch 93336/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
0.9597  
Epoch 93337/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
0.9592  
Epoch 93338/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
0.9600  
Epoch 93339/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy: 0.9599  
Epoch 93340/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy: 0.9588  
Epoch 93341/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy: 0.9589  
Epoch 93342/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0280 - accuracy: 0.9593  
Epoch 93343/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy: 0.9594  
Epoch 93344/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy: 0.9593  
Epoch 93345/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0282 - accuracy: 0.9590  
Epoch 93346/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0283 - accuracy: 0.9599  
Epoch 93347/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy: 0.9607  
Epoch 93348/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy: 0.9591  
Epoch 93349/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0281 - accuracy: 0.9587  
Epoch 93350/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0280 - accuracy: 0.9595  
Epoch 93351/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0282 - accuracy: 0.9594  
Epoch 93352/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0286 - accuracy: 0.9606  
Epoch 93353/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0282 - accuracy: 0.9600  
Epoch 93354/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9596  
Epoch 93355/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9588  
Epoch 93356/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:  
0.9609  
Epoch 93357/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0285 - accuracy:  
0.9581  
Epoch 93358/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0291 - accuracy:  
0.9597  
Epoch 93359/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
0.9598  
Epoch 93360/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
0.9590  
Epoch 93361/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9593  
Epoch 93362/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
0.9594  
Epoch 93363/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9595  
Epoch 93364/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0282 - accuracy:  
0.9586  
Epoch 93365/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0281 - accuracy:  
0.9596  
Epoch 93366/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9603  
Epoch 93367/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0282 - accuracy:  
0.9606  
Epoch 93368/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0282 - accuracy:  
0.9594  
Epoch 93369/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0280 - accuracy:  
0.9594  
Epoch 93370/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0281 - accuracy:  
0.9590  
Epoch 93371/100000

2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:  
0.9594  
Epoch 93372/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0279 - accuracy:  
0.9593  
Epoch 93373/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0280 - accuracy:  
0.9595  
Epoch 93374/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
0.9591  
Epoch 93375/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0284 - accuracy:  
0.9591  
Epoch 93376/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0283 - accuracy:  
0.9591  
Epoch 93377/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0283 - accuracy:  
0.9592  
Epoch 93378/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy:  
0.9599  
Epoch 93379/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
0.9597  
Epoch 93380/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:  
0.9594  
Epoch 93381/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy:  
0.9595  
Epoch 93382/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
0.9602  
Epoch 93383/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
0.9602  
Epoch 93384/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
0.9597  
Epoch 93385/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9598  
Epoch 93386/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0291 - accuracy:  
0.9588  
Epoch 93387/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0297 - accuracy:  
0.9594  
Epoch 93388/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0315 - accuracy:  
0.9596  
Epoch 93389/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy:  
0.9599  
Epoch 93390/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9603  
Epoch 93391/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
0.9594  
Epoch 93392/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9591  
Epoch 93393/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0291 - accuracy:  
0.9586  
Epoch 93394/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0291 - accuracy:  
0.9606  
Epoch 93395/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
0.9603  
Epoch 93396/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy:  
0.9604  
Epoch 93397/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy:  
0.9593  
Epoch 93398/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9601  
Epoch 93399/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9591  
Epoch 93400/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
0.9597  
Epoch 93401/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
0.9592  
Epoch 93402/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
0.9583  
Epoch 93403/100000

2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy: 0.9599  
Epoch 93404/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy: 0.9591  
Epoch 93405/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy: 0.9589  
Epoch 93406/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0286 - accuracy: 0.9608  
Epoch 93407/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy: 0.9593  
Epoch 93408/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0296 - accuracy: 0.9590  
Epoch 93409/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9594  
Epoch 93410/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9600  
Epoch 93411/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0288 - accuracy: 0.9593  
Epoch 93412/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy: 0.9595  
Epoch 93413/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy: 0.9589  
Epoch 93414/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0293 - accuracy: 0.9598  
Epoch 93415/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy: 0.9603  
Epoch 93416/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy: 0.9597  
Epoch 93417/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0290 - accuracy: 0.9601  
Epoch 93418/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9591  
Epoch 93419/100000



2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
0.9605  
Epoch 93420/100000  
2/2 [=====] - ETA: 0s - loss: 0.0288 - accuracy:  
0.9593Epoch 95316/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
0.9593  
Epoch 95317/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
0.9587  
Epoch 95318/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9594  
Epoch 95319/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0286 - accuracy:  
0.9591  
Epoch 95320/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0290 - accuracy:  
0.9598  
Epoch 95321/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
0.9595  
Epoch 95322/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9588  
Epoch 95323/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9589  
Epoch 95324/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0280 - accuracy:  
0.9595  
Epoch 95325/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy:  
0.9592  
Epoch 95326/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9610  
Epoch 95327/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy:  
0.9611  
Epoch 95328/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9602  
Epoch 95329/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0284 - accuracy:  
0.9597  
Epoch 95330/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy:

0.9599  
Epoch 95331/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
0.9595  
Epoch 95332/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy:  
0.9594  
Epoch 95333/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0286 - accuracy:  
0.9604  
Epoch 95334/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0283 - accuracy:  
0.9595  
Epoch 95335/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy:  
0.9598  
Epoch 95336/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
0.9593  
Epoch 95337/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0283 - accuracy:  
0.9594  
Epoch 95338/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy:  
0.9592  
Epoch 95339/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0282 - accuracy:  
0.9583  
Epoch 95340/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0282 - accuracy:  
0.9606  
Epoch 95341/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0282 - accuracy:  
0.9601  
Epoch 95342/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
0.9594  
Epoch 95343/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
0.9594  
Epoch 95344/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy:  
0.9605  
Epoch 95345/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy:  
0.9595  
Epoch 95346/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0291 - accuracy:

0.9599  
Epoch 95347/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy: 0.9588  
Epoch 95348/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy: 0.9593  
Epoch 95349/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy: 0.9600  
Epoch 95350/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy: 0.9591  
Epoch 95351/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0284 - accuracy: 0.9605  
Epoch 95352/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy: 0.9597  
Epoch 95353/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy: 0.9593  
Epoch 95354/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9608  
Epoch 95355/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0294 - accuracy: 0.9597  
Epoch 95356/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9591  
Epoch 95357/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy: 0.9602  
Epoch 95358/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy: 0.9595  
Epoch 95359/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy: 0.9587  
Epoch 95360/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9592  
Epoch 95361/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy: 0.9600  
Epoch 95362/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0288 - accuracy:

0.9593  
Epoch 95363/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
0.9594  
Epoch 95364/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0297 - accuracy:  
0.9611  
Epoch 95365/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9601  
Epoch 95366/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0280 - accuracy:  
0.9598  
Epoch 95367/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy:  
0.9603  
Epoch 95368/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0296 - accuracy:  
0.9594  
Epoch 95369/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9596  
Epoch 95370/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
0.9596  
Epoch 95371/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0300 - accuracy:  
0.9594  
Epoch 95372/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy:  
0.9603  
Epoch 95373/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0290 - accuracy:  
0.9599  
Epoch 95374/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0290 - accuracy:  
0.9597  
Epoch 95375/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy:  
0.9595  
Epoch 95376/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
0.9598  
Epoch 95377/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9600  
Epoch 95378/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:

0.9607  
Epoch 95379/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
0.9590  
Epoch 95380/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0287 - accuracy:  
0.9600  
Epoch 95381/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
0.9591  
Epoch 95382/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9594  
Epoch 95383/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy:  
0.9601  
Epoch 95384/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0283 - accuracy:  
0.9596  
Epoch 95385/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0284 - accuracy:  
0.9597  
Epoch 95386/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0288 - accuracy:  
0.9590  
Epoch 95387/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0291 - accuracy:  
0.9606  
Epoch 95388/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0286 - accuracy:  
0.9595  
Epoch 95389/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0283 - accuracy:  
0.9586  
Epoch 95390/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0288 - accuracy:  
0.9600  
Epoch 95391/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:  
0.9601  
Epoch 95392/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0286 - accuracy:  
0.9596  
Epoch 95393/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
0.9591  
Epoch 95394/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0285 - accuracy:

0.9593  
 Epoch 95395/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
 0.9598  
 Epoch 95396/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
 0.9603  
 Epoch 95397/100000  
 2/2 [=====] - 0s 122ms/step - loss: 0.0282 - accuracy:  
 0.9598  
 Epoch 95398/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy:  
 0.9604  
 Epoch 95399/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
 0.9596  
 Epoch 95400/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
 0.9599  
 Epoch 95401/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
 0.9600  
 Epoch 95402/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0292 - accuracy:  
 0.9585  
 Epoch 95403/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
 0.9590  
 Epoch 95404/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:  
 0.9599  
 Epoch 95405/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0284 - accuracy:  
 0.9590  
 Epoch 95406/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
 0.9600  
 Epoch 95407/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0287 - accuracy:  
 0.9596  
 Epoch 95408/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0284 - accuracy:  
 0.9591  
 Epoch 95409/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0285 - accuracy:  
 0.9599  
 Epoch 95410/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0281 - accuracy:

0.9594  
Epoch 95411/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9601  
Epoch 95412/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9606  
Epoch 95413/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy:  
0.9585  
Epoch 95414/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0287 - accuracy:  
0.9599  
Epoch 95415/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy:  
0.9599  
Epoch 95416/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy:  
0.9597  
Epoch 95417/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9595  
Epoch 95418/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
0.9582  
Epoch 95419/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0290 - accuracy:  
0.9598  
Epoch 95420/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy:  
0.9590  
Epoch 95421/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy:  
0.9592  
Epoch 95422/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
0.9603  
Epoch 95423/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0282 - accuracy:  
0.9596  
Epoch 95424/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
0.9598  
Epoch 95425/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy:  
0.9593  
Epoch 95426/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0282 - accuracy:

0.9592  
 Epoch 95427/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0279 - accuracy:  
 0.9597  
 Epoch 95428/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0282 - accuracy:  
 0.9596  
 Epoch 95429/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0282 - accuracy:  
 0.9601  
 Epoch 95430/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0282 - accuracy:  
 0.9589  
 Epoch 95431/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0283 - accuracy:  
 0.9599  
 Epoch 95432/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy:  
 0.9608  
 Epoch 95433/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
 0.9598  
 Epoch 95434/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0284 - accuracy:  
 0.9591  
 Epoch 95435/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0279 - accuracy:  
 0.9594  
 Epoch 95436/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0290 - accuracy:  
 0.9598  
 Epoch 95437/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
 0.9605  
 Epoch 95438/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0291 - accuracy:  
 0.9601  
 Epoch 95439/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
 0.9599  
 Epoch 95440/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0281 - accuracy:  
 0.9597  
 Epoch 95441/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:  
 0.9600  
 Epoch 95442/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0287 - accuracy:



0.9597  
 Epoch 95443/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0287 - accuracy:  
 0.9589  
 Epoch 95444/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0290 - accuracy:  
 0.9598  
 Epoch 95445/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
 0.9596  
 Epoch 95446/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0285 - accuracy:  
 0.9598  
 Epoch 95447/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
 0.9604  
 Epoch 95448/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
 0.9590  
 Epoch 95449/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0287 - accuracy:  
 0.9590  
 Epoch 95450/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
 0.9595  
 Epoch 95451/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0282 - accuracy:  
 0.9599  
 Epoch 95452/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
 0.9597  
 Epoch 95453/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
 0.9589  
 Epoch 95454/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
 0.9598  
 Epoch 95455/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
 0.9591  
 Epoch 95456/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy:  
 0.9603  
 Epoch 95457/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
 0.9598  
 Epoch 95458/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy:

0.9598  
 Epoch 95459/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
 0.9600  
 Epoch 95460/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
 0.9597  
 Epoch 95461/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy:  
 0.9595  
 Epoch 95462/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
 0.9604  
 Epoch 95463/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0284 - accuracy:  
 0.9588  
 Epoch 95464/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy:  
 0.9596  
 Epoch 95465/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
 0.9596  
 Epoch 95466/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0290 - accuracy:  
 0.9598  
 Epoch 95467/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
 0.9589  
 Epoch 95468/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy:  
 0.9607  
 Epoch 95469/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy:  
 0.9595  
 Epoch 95470/100000  
 2/2 [=====] - 0s 113ms/step - loss: 0.0290 - accuracy:  
 0.9610  
 Epoch 95471/100000  
 2/2 [=====] - 0s 121ms/step - loss: 0.0284 - accuracy:  
 0.9593  
 Epoch 95472/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
 0.9602  
 Epoch 95473/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
 0.9588  
 Epoch 95474/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0292 - accuracy:

```

0.9589
Epoch 95475/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:
0.9592
Epoch 95476/100000
2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy:
0.9588
Epoch 95477/100000
2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy:
0.9595
Epoch 95478/100000
2/2 [=====] - 0s 117ms/step - loss: 0.0287 - accuracy:
0.9600
Epoch 95479/100000
2/2 [=====] - 0s 116ms/step - loss: 0.0282 - accuracy:
0.9593
Epoch 95480/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:
0.9593
Epoch 95481/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:
0.9602
Epoch 95482/100000
2/2 [=====] - 0s 117ms/step - loss: 0.0289 - accuracy:
0.9596
Epoch 95483/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:
0.9596
Epoch 95484/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:
0.9591
Epoch 95485/100000
2/2 [=====] - 0s 116ms/step - loss: 0.0283 - accuracy:
0.9589
Epoch 95486/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0279 - accuracy:
0.9590
Epoch 95487/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:
0.9594
Epoch 95488/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:
0.9602
Epoch 95489/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:
0.9589
Epoch 95490/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0282 - accuracy:

```

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0.9593
Epoch 95491/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0282 - accuracy:
0.9601
Epoch 95492/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:
0.9595
Epoch 95493/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:
0.9596
Epoch 95494/100000
2/2 [=====] - 0s 113ms/step - loss: 0.0288 - accuracy:
0.9598
Epoch 95495/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:
0.9590
Epoch 95496/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:
0.9597
Epoch 95497/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy:
0.9599
Epoch 95498/100000
2/2 [=====] - 0s 118ms/step - loss: 0.0300 - accuracy:
0.9598
Epoch 95499/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:
0.9594
Epoch 95500/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy:
0.9604
Epoch 95501/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:
0.9602
Epoch 95502/100000
2/2 [=====] - 0s 116ms/step - loss: 0.0291 - accuracy:
0.9596
Epoch 95503/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:
0.9596
Epoch 95504/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:
0.9607
Epoch 95505/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:
0.9598
Epoch 95506/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:

```

0.9599  
 Epoch 95507/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0293 - accuracy:  
 0.9604  
 Epoch 95508/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0291 - accuracy:  
 0.9608  
 Epoch 95509/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0293 - accuracy:  
 0.9588  
 Epoch 95510/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
 0.9600  
 Epoch 95511/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0290 - accuracy:  
 0.9591  
 Epoch 95512/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
 0.9593  
 Epoch 95513/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
 0.9591  
 Epoch 95514/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy:  
 0.9602  
 Epoch 95515/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy:  
 0.9590  
 Epoch 95516/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0281 - accuracy:  
 0.9598  
 Epoch 95517/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0282 - accuracy:  
 0.9598  
 Epoch 95518/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
 0.9594  
 Epoch 95519/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
 0.9603  
 Epoch 95520/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
 0.9597  
 Epoch 95521/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
 0.9594  
 Epoch 95522/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0283 - accuracy:

0.9597  
Epoch 95523/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0287 - accuracy:  
0.9595  
Epoch 95524/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0289 - accuracy:  
0.9602  
Epoch 95525/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0292 - accuracy:  
0.9604  
Epoch 95526/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0294 - accuracy:  
0.9593  
Epoch 95527/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
0.9596  
Epoch 95528/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9594  
Epoch 95529/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy:  
0.9606  
Epoch 95530/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy:  
0.9600  
Epoch 95531/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
0.9609  
Epoch 95532/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9587  
Epoch 95533/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0304 - accuracy:  
0.9594  
Epoch 95534/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0292 - accuracy:  
0.9592  
Epoch 95535/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
0.9593  
Epoch 95536/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy:  
0.9603  
Epoch 96263/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9592  
Epoch 96264/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:

```

0.9594
Epoch 96265/100000
2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy:
0.9600
Epoch 96266/100000
2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy:
0.9590
Epoch 96267/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:
0.9595
Epoch 96268/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:
0.9596
Epoch 96269/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:
0.9599
Epoch 96270/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:
0.9592
Epoch 96271/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:
0.9602
Epoch 96272/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:
0.9597
Epoch 96273/100000
2/2 [=====] - 0s 118ms/step - loss: 0.0289 - accuracy:
0.9589
Epoch 96274/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy:
0.9605
Epoch 96275/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy:
0.9597
Epoch 96276/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:
0.9593
Epoch 96277/100000
2/2 [=====] - 0s 117ms/step - loss: 0.0288 - accuracy:
0.9589
Epoch 96278/100000
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy:
0.9614
Epoch 96279/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:
0.9593
Epoch 96280/100000
2/2 [=====] - 0s 116ms/step - loss: 0.0290 - accuracy:

```

0.9593  
 Epoch 96281/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy:  
 0.9605  
 Epoch 96282/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
 0.9597  
 Epoch 96283/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy:  
 0.9596  
 Epoch 96284/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0290 - accuracy:  
 0.9605  
 Epoch 96285/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy:  
 0.9600  
 Epoch 96286/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
 0.9605  
 Epoch 96287/100000  
 2/2 [=====] - 0s 113ms/step - loss: 0.0288 - accuracy:  
 0.9597  
 Epoch 96288/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
 0.9597  
 Epoch 96289/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
 0.9591  
 Epoch 96290/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
 0.9594  
 Epoch 96291/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
 0.9596  
 Epoch 96292/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
 0.9597  
 Epoch 96293/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:  
 0.9581  
 Epoch 96294/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
 0.9601  
 Epoch 96295/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0290 - accuracy:  
 0.9599  
 Epoch 96296/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy:



0.9606  
 Epoch 96297/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
 0.9591  
 Epoch 96298/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
 0.9598  
 Epoch 96299/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0284 - accuracy:  
 0.9593  
 Epoch 96300/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy:  
 0.9592  
 Epoch 96301/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0280 - accuracy:  
 0.9595  
 Epoch 96302/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0283 - accuracy:  
 0.9591  
 Epoch 96303/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
 0.9598  
 Epoch 96304/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
 0.9601  
 Epoch 96305/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0283 - accuracy:  
 0.9609  
 Epoch 96306/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
 0.9604  
 Epoch 96307/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:  
 0.9605  
 Epoch 96308/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0281 - accuracy:  
 0.9597  
 Epoch 96309/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
 0.9605  
 Epoch 96310/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
 0.9591  
 Epoch 96311/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0287 - accuracy:  
 0.9593  
 Epoch 96312/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0284 - accuracy:

0.9591  
 Epoch 96313/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:  
 0.9594  
 Epoch 96314/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
 0.9610  
 Epoch 96315/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0289 - accuracy:  
 0.9597  
 Epoch 96316/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0281 - accuracy:  
 0.9590  
 Epoch 96317/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0289 - accuracy:  
 0.9597  
 Epoch 96318/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
 0.9590  
 Epoch 96319/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0290 - accuracy:  
 0.9590  
 Epoch 96320/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
 0.9594  
 Epoch 96321/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
 0.9596  
 Epoch 96322/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
 0.9602  
 Epoch 96323/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
 0.9598  
 Epoch 96324/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
 0.9587  
 Epoch 96325/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy:  
 0.9607  
 Epoch 96326/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
 0.9600  
 Epoch 96327/100000  
 2/2 [=====] - 0s 113ms/step - loss: 0.0286 - accuracy:  
 0.9588  
 Epoch 96328/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:

```

0.9595
Epoch 96329/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:
0.9600
Epoch 96330/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:
0.9596
Epoch 96331/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:
0.9592
Epoch 96332/100000
2/2 [=====] - 0s 117ms/step - loss: 0.0289 - accuracy:
0.9602
Epoch 96333/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:
0.9598
Epoch 96334/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:
0.9599
Epoch 96335/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:
0.9589
Epoch 96336/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:
0.9590
Epoch 96337/100000
2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy:
0.9600
Epoch 96338/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:
0.9601
Epoch 96339/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:
0.9599
Epoch 96340/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:
0.9596
Epoch 96341/100000
2/2 [=====] - 0s 116ms/step - loss: 0.0292 - accuracy:
0.9593
Epoch 96342/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:
0.9595
Epoch 96343/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:
0.9602
Epoch 96344/100000
2/2 [=====] - 0s 121ms/step - loss: 0.0284 - accuracy:

```

0.9592  
Epoch 96345/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:  
0.9595  
Epoch 96346/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0301 - accuracy:  
0.9601  
Epoch 96347/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy:  
0.9594  
Epoch 96348/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9584  
Epoch 96349/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0301 - accuracy:  
0.9591  
Epoch 96350/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0292 - accuracy:  
0.9601  
Epoch 96351/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
0.9594  
Epoch 96352/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy:  
0.9597  
Epoch 96353/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
0.9595  
Epoch 96354/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
0.9591  
Epoch 96355/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9602  
Epoch 96356/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0294 - accuracy:  
0.9605  
Epoch 96357/100000  
2/2 [=====] - 0s 126ms/step - loss: 0.0290 - accuracy:  
0.9588  
Epoch 96358/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0300 - accuracy:  
0.9594  
Epoch 96359/100000  
2/2 [=====] - 0s 129ms/step - loss: 0.0287 - accuracy:  
0.9594  
Epoch 96360/100000  
2/2 [=====] - 0s 122ms/step - loss: 0.0290 - accuracy:

0.9596  
Epoch 96361/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0289 - accuracy:  
0.9602  
Epoch 96362/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0286 - accuracy:  
0.9594  
Epoch 96363/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
0.9593  
Epoch 96364/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9599  
Epoch 96365/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
0.9598  
Epoch 96366/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
0.9596  
Epoch 96367/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9603  
Epoch 96368/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
0.9592  
Epoch 96369/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
0.9603  
Epoch 96370/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0283 - accuracy:  
0.9601  
Epoch 96371/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
0.9592  
Epoch 96372/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0280 - accuracy:  
0.9598  
Epoch 96373/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy:  
0.9597  
Epoch 96374/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy:  
0.9600  
Epoch 96375/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
0.9598  
Epoch 96376/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0282 - accuracy:

0.9593  
Epoch 96377/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0282 - accuracy: 0.9600  
Epoch 96378/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0282 - accuracy: 0.9599  
Epoch 96379/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0285 - accuracy: 0.9590  
Epoch 96380/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0281 - accuracy: 0.9600  
Epoch 96381/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy: 0.9596  
Epoch 96382/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0284 - accuracy: 0.9597  
Epoch 96383/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy: 0.9592  
Epoch 96384/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy: 0.9603  
Epoch 96385/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0282 - accuracy: 0.9601  
Epoch 96386/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0280 - accuracy: 0.9596  
Epoch 96387/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy: 0.9587  
Epoch 96388/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0278 - accuracy: 0.9586  
Epoch 96389/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy: 0.9591  
Epoch 96390/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy: 0.9597  
Epoch 96391/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy: 0.9606  
Epoch 96392/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0304 - accuracy:

0.9598  
Epoch 96393/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9598  
Epoch 96394/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy: 0.9594  
Epoch 96395/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0299 - accuracy: 0.9597  
Epoch 96396/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9599  
Epoch 96397/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9589  
Epoch 96398/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy: 0.9592  
Epoch 96399/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0293 - accuracy: 0.9588  
Epoch 96400/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy: 0.9602  
Epoch 96401/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy: 0.9597  
Epoch 96402/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9594  
Epoch 96403/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy: 0.9586  
Epoch 96404/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy: 0.9590  
Epoch 96405/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy: 0.9600  
Epoch 96406/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0291 - accuracy: 0.9599  
Epoch 96407/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy: 0.9602  
Epoch 96408/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0284 - accuracy:

0.9597  
Epoch 96409/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0284 - accuracy: 0.9595  
Epoch 96410/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0293 - accuracy: 0.9604  
Epoch 96411/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0291 - accuracy: 0.9598  
Epoch 96412/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy: 0.9596  
Epoch 96413/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy: 0.9592  
Epoch 96414/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy: 0.9597  
Epoch 96415/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy: 0.9592  
Epoch 96416/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9599  
Epoch 96417/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy: 0.9594  
Epoch 96418/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy: 0.9601  
Epoch 96419/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy: 0.9605  
Epoch 96420/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy: 0.9590  
Epoch 96421/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9603  
Epoch 96422/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy: 0.9589  
Epoch 96423/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy: 0.9597  
Epoch 96424/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:



0.9595  
Epoch 96425/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0281 - accuracy:  
0.9591  
Epoch 96426/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9602  
Epoch 96427/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0288 - accuracy:  
0.9593  
Epoch 96428/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:  
0.9598  
Epoch 96429/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy:  
0.9592  
Epoch 96430/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
0.9586  
Epoch 96431/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0291 - accuracy:  
0.9605  
Epoch 96432/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy:  
0.9592  
Epoch 96433/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0302 - accuracy:  
0.9592  
Epoch 96434/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
0.9598  
Epoch 96435/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9595  
Epoch 96436/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9594  
Epoch 96437/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
0.9596  
Epoch 96438/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:  
0.9589  
Epoch 96439/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0284 - accuracy:  
0.9598  
Epoch 96440/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0287 - accuracy:

0.9596  
 Epoch 96441/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0281 - accuracy:  
 0.9603  
 Epoch 96442/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:  
 0.9594  
 Epoch 96443/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0282 - accuracy:  
 0.9584  
 Epoch 96444/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0282 - accuracy:  
 0.9592  
 Epoch 96445/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
 0.9605  
 Epoch 96446/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
 0.9590  
 Epoch 96447/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
 0.9583  
 Epoch 96448/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
 0.9598  
 Epoch 96449/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
 0.9598  
 Epoch 96450/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0297 - accuracy:  
 0.9597  
 Epoch 96451/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy:  
 0.9602  
 Epoch 96452/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
 0.9592  
 Epoch 96453/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0292 - accuracy:  
 0.9607  
 Epoch 96454/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy:  
 0.9592  
 Epoch 96455/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
 0.9591  
 Epoch 96456/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:

```

0.9590
Epoch 96457/100000
2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy:
0.9596
Epoch 96458/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:
0.9594
Epoch 96459/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:
0.9605
Epoch 96460/100000
2/2 [=====] - 0s 122ms/step - loss: 0.0288 - accuracy:
0.9604
Epoch 96461/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:
0.9596
Epoch 96462/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy:
0.9592
Epoch 96463/100000
2/2 [=====] - 0s 116ms/step - loss: 0.0283 - accuracy:
0.9589
Epoch 96464/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:
0.9594
Epoch 96465/100000
2/2 [=====] - 0s 113ms/step - loss: 0.0284 - accuracy:
0.9593
Epoch 96466/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:
0.9592
Epoch 96467/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0282 - accuracy:
0.9594
Epoch 96468/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:
0.9601
Epoch 96469/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:
0.9594
Epoch 96470/100000
2/2 [=====] - 0s 117ms/step - loss: 0.0286 - accuracy:
0.9598
Epoch 96471/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:
0.9596
Epoch 96472/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:

```

0.9597  
Epoch 96473/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy: 0.9588  
Epoch 96474/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0288 - accuracy: 0.9598  
Epoch 96475/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy: 0.9600  
Epoch 96476/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy: 0.9592  
Epoch 96477/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9600  
Epoch 96478/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0283 - accuracy: 0.9597  
Epoch 96479/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy: 0.9591  
Epoch 96480/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0283 - accuracy: 0.9607  
Epoch 96481/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy: 0.9603  
Epoch 96482/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9596  
Epoch 96845/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy: 0.9596  
Epoch 96846/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy: 0.9590  
Epoch 96847/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0286 - accuracy: 0.9602  
Epoch 96848/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0289 - accuracy: 0.9596  
Epoch 96849/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy: 0.9602  
Epoch 96850/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0294 - accuracy:

0.9605  
 Epoch 96851/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:  
 0.9601  
 Epoch 96852/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
 0.9609  
 Epoch 96853/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy:  
 0.9600  
 Epoch 96854/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy:  
 0.9596  
 Epoch 96855/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
 0.9591  
 Epoch 96856/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0284 - accuracy:  
 0.9588  
 Epoch 96857/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0283 - accuracy:  
 0.9600  
 Epoch 96858/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
 0.9599  
 Epoch 96859/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0284 - accuracy:  
 0.9592  
 Epoch 96860/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
 0.9600  
 Epoch 96861/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0284 - accuracy:  
 0.9603  
 Epoch 96862/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0282 - accuracy:  
 0.9599  
 Epoch 96863/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0281 - accuracy:  
 0.9596  
 Epoch 96864/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
 0.9597  
 Epoch 96865/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy:  
 0.9597  
 Epoch 96866/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy:

0.9593  
Epoch 96867/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy: 0.9605  
Epoch 96868/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0283 - accuracy: 0.9598  
Epoch 96869/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0283 - accuracy: 0.9596  
Epoch 96870/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0283 - accuracy: 0.9595  
Epoch 96871/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0285 - accuracy: 0.9589  
Epoch 96872/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy: 0.9600  
Epoch 96873/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy: 0.9592  
Epoch 96874/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy: 0.9604  
Epoch 96875/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy: 0.9593  
Epoch 96876/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy: 0.9603  
Epoch 96877/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy: 0.9588  
Epoch 96878/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy: 0.9601  
Epoch 96879/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy: 0.9595  
Epoch 96880/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy: 0.9598  
Epoch 96881/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0281 - accuracy: 0.9587  
Epoch 96882/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:

0.9589  
Epoch 96883/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy: 0.9600  
Epoch 96884/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy: 0.9598  
Epoch 96885/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0292 - accuracy: 0.9611  
Epoch 96886/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0286 - accuracy: 0.9597  
Epoch 96887/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy: 0.9592  
Epoch 96888/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0282 - accuracy: 0.9597  
Epoch 96889/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy: 0.9598  
Epoch 96890/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy: 0.9590  
Epoch 96891/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0287 - accuracy: 0.9585  
Epoch 96892/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0280 - accuracy: 0.9589  
Epoch 96893/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy: 0.9594  
Epoch 96894/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy: 0.9595  
Epoch 96895/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0288 - accuracy: 0.9597  
Epoch 96896/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9597  
Epoch 96897/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy: 0.9588  
Epoch 96898/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0282 - accuracy:

0.9590  
Epoch 96899/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0285 - accuracy:  
0.9598  
Epoch 96900/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
0.9595  
Epoch 96901/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
0.9600  
Epoch 96902/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0284 - accuracy:  
0.9597  
Epoch 96903/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0291 - accuracy:  
0.9598  
Epoch 96904/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9604  
Epoch 96905/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9599  
Epoch 96906/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9596  
Epoch 96907/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
0.9605  
Epoch 96908/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy:  
0.9602  
Epoch 96909/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy:  
0.9598  
Epoch 96910/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9602  
Epoch 96911/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0283 - accuracy:  
0.9597  
Epoch 96912/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9592  
Epoch 96913/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0280 - accuracy:  
0.9594  
Epoch 96914/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:



0.9595  
 Epoch 96915/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0280 - accuracy:  
 0.9590  
 Epoch 96916/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
 0.9591  
 Epoch 96917/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy:  
 0.9600  
 Epoch 96918/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
 0.9603  
 Epoch 96919/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy:  
 0.9591  
 Epoch 96920/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0282 - accuracy:  
 0.9591  
 Epoch 96921/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:  
 0.9586  
 Epoch 96922/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0285 - accuracy:  
 0.9587  
 Epoch 96923/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
 0.9591  
 Epoch 96924/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy:  
 0.9594  
 Epoch 96925/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0282 - accuracy:  
 0.9597  
 Epoch 96926/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
 0.9604  
 Epoch 96927/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0282 - accuracy:  
 0.9602  
 Epoch 96928/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0292 - accuracy:  
 0.9597  
 Epoch 96929/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
 0.9600  
 Epoch 96930/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:

0.9591  
Epoch 96931/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0290 - accuracy:  
0.9600  
Epoch 96932/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9594  
Epoch 96933/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0296 - accuracy:  
0.9591  
Epoch 96934/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy:  
0.9606  
Epoch 96935/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0296 - accuracy:  
0.9601  
Epoch 96936/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy:  
0.9600  
Epoch 96937/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy:  
0.9589  
Epoch 96938/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0290 - accuracy:  
0.9587  
Epoch 96939/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0283 - accuracy:  
0.9593  
Epoch 96940/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0290 - accuracy:  
0.9591  
Epoch 96941/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
0.9593  
Epoch 96942/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0298 - accuracy:  
0.9595  
Epoch 96943/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0283 - accuracy:  
0.9593  
Epoch 96944/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy:  
0.9592  
Epoch 96945/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0283 - accuracy:  
0.9599  
Epoch 96946/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy:

```

0.9591
Epoch 96947/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:
0.9596
Epoch 96948/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:
0.9602
Epoch 96949/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:
0.9600
Epoch 96950/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0281 - accuracy:
0.9585
Epoch 96951/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:
0.9594
Epoch 96952/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:
0.9610
Epoch 96953/100000
2/2 [=====] - 0s 117ms/step - loss: 0.0287 - accuracy:
0.9585
Epoch 96954/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:
0.9593
Epoch 96955/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy:
0.9600
Epoch 96956/100000
2/2 [=====] - 0s 117ms/step - loss: 0.0287 - accuracy:
0.9592
Epoch 96957/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:
0.9606
Epoch 96958/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:
0.9593
Epoch 96959/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0281 - accuracy:
0.9593
Epoch 96960/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0282 - accuracy:
0.9594
Epoch 96961/100000
2/2 [=====] - 0s 116ms/step - loss: 0.0283 - accuracy:
0.9598
Epoch 96962/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:

```

```

0.9592
Epoch 96963/100000
2/2 [=====] - 0s 118ms/step - loss: 0.0283 - accuracy:
0.9590
Epoch 96964/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:
0.9601
Epoch 96965/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:
0.9596
Epoch 96966/100000
2/2 [=====] - 0s 122ms/step - loss: 0.0284 - accuracy:
0.9598
Epoch 96967/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy:
0.9597
Epoch 96968/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0281 - accuracy:
0.9594
Epoch 96969/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0282 - accuracy:
0.9595
Epoch 96970/100000
2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy:
0.9610
Epoch 96971/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy:
0.9588
Epoch 96972/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0281 - accuracy:
0.9586
Epoch 96973/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:
0.9600
Epoch 96974/100000
2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy:
0.9593
Epoch 96975/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:
0.9588
Epoch 96976/100000
2/2 [=====] - 0s 116ms/step - loss: 0.0283 - accuracy:
0.9597
Epoch 96977/100000
2/2 [=====] - 0s 118ms/step - loss: 0.0287 - accuracy:
0.9605
Epoch 96978/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:

```

0.9593  
Epoch 96979/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9594  
Epoch 96980/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy:  
0.9608  
Epoch 96981/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0281 - accuracy:  
0.9597  
Epoch 96982/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0284 - accuracy:  
0.9597  
Epoch 96983/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0282 - accuracy:  
0.9597  
Epoch 96984/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0279 - accuracy:  
0.9603  
Epoch 96985/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy:  
0.9597  
Epoch 96986/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0282 - accuracy:  
0.9595  
Epoch 96987/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy:  
0.9602  
Epoch 96988/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy:  
0.9601  
Epoch 96989/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0284 - accuracy:  
0.9599  
Epoch 96990/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9604  
Epoch 96991/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy:  
0.9600  
Epoch 96992/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9598  
Epoch 96993/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:  
0.9608  
Epoch 96994/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:

```

0.9598
Epoch 96995/100000
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:
0.9600
Epoch 96996/100000
2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy:
0.9595
Epoch 96997/100000
2/2 [=====] - 0s 116ms/step - loss: 0.0292 - accuracy:
0.9595
Epoch 96998/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:
0.9593
Epoch 96999/100000
2/2 [=====] - 0s 117ms/step - loss: 0.0283 - accuracy:
0.9595
Epoch 97000/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:
0.9601
Epoch 97001/100000
2/2 [=====] - 0s 117ms/step - loss: 0.0295 - accuracy:
0.9607
Epoch 97002/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:
0.9591
Epoch 97003/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:
0.9608
Epoch 97004/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0280 - accuracy:
0.9597
Epoch 97005/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:
0.9591
Epoch 97006/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy:
0.9598
Epoch 97007/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:
0.9594
Epoch 97008/100000
2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy:
0.9598
Epoch 97009/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:
0.9600
Epoch 97010/100000
2/2 [=====] - 0s 118ms/step - loss: 0.0282 - accuracy:

```

0.9598  
Epoch 97011/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
0.9595  
Epoch 97012/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0286 - accuracy:  
0.9600  
Epoch 97013/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0285 - accuracy:  
0.9586  
Epoch 97014/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy:  
0.9587  
Epoch 97015/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9597  
Epoch 97016/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0288 - accuracy:  
0.9595  
Epoch 97017/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
0.9590  
Epoch 97018/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0284 - accuracy:  
0.9593  
Epoch 97019/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
0.9594  
Epoch 97020/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0284 - accuracy:  
0.9592  
Epoch 97021/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
0.9596  
Epoch 97022/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0290 - accuracy:  
0.9602  
Epoch 97023/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0286 - accuracy:  
0.9600  
Epoch 97024/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:  
0.9596  
Epoch 97025/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0283 - accuracy:  
0.9593  
Epoch 97026/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0284 - accuracy:

0.9598  
 Epoch 97027/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy:  
 0.9601  
 Epoch 97028/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0281 - accuracy:  
 0.9594  
 Epoch 97029/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0286 - accuracy:  
 0.9598  
 Epoch 97030/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
 0.9597  
 Epoch 97031/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy:  
 0.9589  
 Epoch 97032/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:  
 0.9592  
 Epoch 97033/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0284 - accuracy:  
 0.9598  
 Epoch 97034/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
 0.9599  
 Epoch 97035/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0286 - accuracy:  
 0.9589  
 Epoch 97036/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy:  
 0.9601  
 Epoch 97037/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
 0.9594  
 Epoch 97038/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
 0.9592  
 Epoch 97039/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
 0.9600  
 Epoch 97040/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy:  
 0.9600  
 Epoch 97041/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
 0.9604  
 Epoch 97042/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0286 - accuracy:



0.9598  
 Epoch 97043/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy:  
 0.9591  
 Epoch 97044/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
 0.9601  
 Epoch 97045/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:  
 0.9603  
 Epoch 97046/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
 0.9590  
 Epoch 97047/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
 0.9602  
 Epoch 97048/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0291 - accuracy:  
 0.9597  
 Epoch 97049/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0289 - accuracy:  
 0.9602  
 Epoch 97050/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0293 - accuracy:  
 0.9599  
 Epoch 97051/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0291 - accuracy:  
 0.9586  
 Epoch 97052/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy:  
 0.9599  
 Epoch 97053/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
 0.9591  
 Epoch 97054/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0293 - accuracy:  
 0.9596  
 Epoch 97055/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
 0.9589  
 Epoch 97056/100000  
 2/2 [=====] - 0s 113ms/step - loss: 0.0294 - accuracy:  
 0.9604  
 Epoch 97057/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy:  
 0.9604  
 Epoch 97058/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0292 - accuracy:

0.9593  
 Epoch 97059/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0292 - accuracy:  
 0.9599  
 Epoch 97060/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
 0.9601  
 Epoch 97061/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0284 - accuracy:  
 0.9587  
 Epoch 97062/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
 0.9590  
 Epoch 97063/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
 0.9598  
 Epoch 97064/100000  
 2/2 [=====] - 0s 120ms/step - loss: 0.0290 - accuracy:  
 0.9603  
 Epoch 97065/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
 0.9596  
 Epoch 97066/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy:  
 0.9604  
 Epoch 97067/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0286 - accuracy:  
 0.9600  
 Epoch 97068/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
 0.9599  
 Epoch 97069/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
 0.9593  
 Epoch 97070/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
 0.9596  
 Epoch 97071/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0288 - accuracy:  
 0.9593  
 Epoch 97072/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
 0.9603  
 Epoch 97073/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy:  
 0.9606  
 Epoch 97074/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:

0.9604  
Epoch 97075/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy: 0.9596  
Epoch 97076/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0279 - accuracy: 0.9587  
Epoch 97077/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy: 0.9603  
Epoch 97078/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0282 - accuracy: 0.9592  
Epoch 97079/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0284 - accuracy: 0.9600  
Epoch 97080/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0281 - accuracy: 0.9598  
Epoch 97081/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy: 0.9601  
Epoch 97082/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy: 0.9596  
Epoch 97083/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy: 0.9591  
Epoch 97084/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy: 0.9590  
Epoch 97085/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy: 0.9593  
Epoch 97086/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0282 - accuracy: 0.9594  
Epoch 97087/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0281 - accuracy: 0.9594  
Epoch 97088/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0285 - accuracy: 0.9597  
Epoch 97089/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0297 - accuracy: 0.9603  
Epoch 97090/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0296 - accuracy:

0.9600  
Epoch 97091/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:  
0.9589  
Epoch 97092/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9596  
Epoch 97093/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
0.9603  
Epoch 97094/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:  
0.9592  
Epoch 97095/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy:  
0.9604  
Epoch 97096/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy:  
0.9605  
Epoch 97097/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy:  
0.9596  
Epoch 97098/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy:  
0.9599  
Epoch 97099/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy:  
0.9597  
Epoch 97100/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
0.9595  
Epoch 97101/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
0.9596  
Epoch 97102/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy:  
0.9590  
Epoch 97103/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0282 - accuracy:  
0.9598  
Epoch 97104/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
0.9598  
Epoch 97105/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
0.9603  
Epoch 97106/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0281 - accuracy:

0.9596  
 Epoch 97107/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0279 - accuracy:  
 0.9593  
 Epoch 97108/100000  
 2/2 [=====] - 0s 120ms/step - loss: 0.0282 - accuracy:  
 0.9588  
 Epoch 97109/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0281 - accuracy:  
 0.9594  
 Epoch 97110/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:  
 0.9595  
 Epoch 97111/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy:  
 0.9592  
 Epoch 97112/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
 0.9608  
 Epoch 97113/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0286 - accuracy:  
 0.9594  
 Epoch 97114/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy:  
 0.9583  
 Epoch 97115/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy:  
 0.9594  
 Epoch 97116/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy:  
 0.9591  
 Epoch 97117/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0298 - accuracy:  
 0.9599  
 Epoch 97118/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
 0.9591  
 Epoch 97119/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
 0.9595  
 Epoch 97120/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
 0.9606  
 Epoch 97121/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy:  
 0.9597  
 Epoch 97122/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy:

0.9594  
 Epoch 97123/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:  
 0.9601  
 Epoch 97124/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:  
 0.9597  
 Epoch 97125/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy:  
 0.9600  
 Epoch 97126/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0292 - accuracy:  
 0.9595  
 Epoch 97127/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0296 - accuracy:  
 0.9602  
 Epoch 97128/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy:  
 0.9598  
 Epoch 97129/100000  
 2/2 [=====] - 0s 121ms/step - loss: 0.0296 - accuracy:  
 0.9594  
 Epoch 97130/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0292 - accuracy:  
 0.9596  
 Epoch 97131/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy:  
 0.9597  
 Epoch 97132/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy:  
 0.9591  
 Epoch 97133/100000  
 2/2 [=====] - 0s 118ms/step - loss: 0.0289 - accuracy:  
 0.9595  
 Epoch 97134/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:  
 0.9595  
 Epoch 97135/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0282 - accuracy:  
 0.9593  
 Epoch 97136/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:  
 0.9593  
 Epoch 97137/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
 0.9591  
 Epoch 97138/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0282 - accuracy:

```

0.9589
Epoch 97139/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0282 - accuracy:
0.9598
Epoch 97140/100000
2/2 [=====] - 0s 121ms/step - loss: 0.0287 - accuracy:
0.9595
Epoch 97141/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0281 - accuracy:
0.9603
Epoch 97142/100000
2/2 [=====] - 0s 117ms/step - loss: 0.0284 - accuracy:
0.9598
Epoch 97143/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:
0.9604
Epoch 97144/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:
0.9594
Epoch 97145/100000
2/2 [=====] - 0s 117ms/step - loss: 0.0287 - accuracy:
0.9600
Epoch 97146/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0279 - accuracy:
0.9593
Epoch 97147/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:
0.9597
Epoch 97148/100000
2/2 [=====] - 0s 117ms/step - loss: 0.0287 - accuracy:
0.9597
Epoch 97149/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:
0.9595
Epoch 97150/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy:
0.9602
Epoch 97151/100000
2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy:
0.9591
Epoch 97152/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:
0.9599
Epoch 97153/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:
0.9590
Epoch 97154/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:

```

0.9594  
 Epoch 97155/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0291 - accuracy: 0.9597  
 Epoch 97156/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy: 0.9602  
 Epoch 97157/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0284 - accuracy: 0.9589  
 Epoch 97158/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy: 0.9593  
 Epoch 97159/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9598  
 Epoch 97160/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy: 0.9600  
 Epoch 97161/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy: 0.9595  
 Epoch 97162/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy: 0.9593  
 Epoch 97163/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy: 0.9592  
 Epoch 97164/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy: 0.9602  
 Epoch 97165/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy: 0.9605  
 Epoch 97166/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy: 0.9594  
 Epoch 97167/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy: 0.9599  
 Epoch 97168/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9600  
 Epoch 97169/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy: 0.9594  
 Epoch 97170/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:



0.9601  
Epoch 97171/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0282 - accuracy: 0.9592  
Epoch 97172/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy: 0.9606  
Epoch 97173/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy: 0.9599  
Epoch 97174/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy: 0.9603  
Epoch 97175/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0278 - accuracy: 0.9586  
Epoch 97176/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy: 0.9592  
Epoch 97177/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy: 0.9588  
Epoch 97178/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy: 0.9594  
Epoch 97179/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy: 0.9595  
Epoch 97180/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9590  
Epoch 97181/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy: 0.9594  
Epoch 97182/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy: 0.9606  
Epoch 97183/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy: 0.9596  
Epoch 97184/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy: 0.9611  
Epoch 97185/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy: 0.9602  
Epoch 97186/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:

0.9592  
Epoch 97187/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
0.9602  
Epoch 97188/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9600  
Epoch 97189/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0287 - accuracy:  
0.9602  
Epoch 97190/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy:  
0.9588  
Epoch 97191/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:  
0.9601  
Epoch 97192/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9597  
Epoch 97193/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9603  
Epoch 97194/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy:  
0.9603  
Epoch 97195/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0286 - accuracy:  
0.9600  
Epoch 97196/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0284 - accuracy:  
0.9604  
Epoch 97197/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
0.9595  
Epoch 97198/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
0.9611  
Epoch 97199/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy:  
0.9601  
Epoch 97200/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:  
0.9600  
Epoch 97201/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy:  
0.9591  
Epoch 97202/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy:

```

0.9598
Epoch 97203/100000
2/2 [=====] - 0s 121ms/step - loss: 0.0285 - accuracy:
0.9596
Epoch 97204/100000
2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy:
0.9598
Epoch 97205/100000
2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy:
0.9598
Epoch 97206/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:
0.9600
Epoch 97207/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:
0.9606
Epoch 97208/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:
0.9590
Epoch 97209/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:
0.9598
Epoch 97210/100000
2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy:
0.9593
Epoch 97211/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:
0.9594
Epoch 97212/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:
0.9593
Epoch 97213/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:
0.9599
Epoch 97214/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:
0.9593
Epoch 97215/100000
2/2 [=====] - 0s 117ms/step - loss: 0.0286 - accuracy:
0.9606
Epoch 97216/100000
2/2 [=====] - 0s 117ms/step - loss: 0.0285 - accuracy:
0.9604
Epoch 97217/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0282 - accuracy:
0.9598
Epoch 97218/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:

```

0.9607  
Epoch 97219/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy: 0.9591  
Epoch 97220/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0290 - accuracy: 0.9592  
Epoch 97221/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0290 - accuracy: 0.9586  
Epoch 97222/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy: 0.9601  
Epoch 97223/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0300 - accuracy: 0.9588  
Epoch 97224/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0291 - accuracy: 0.9590  
Epoch 97225/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy: 0.9600  
Epoch 97226/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0288 - accuracy: 0.9601  
Epoch 97227/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0291 - accuracy: 0.9590  
Epoch 97228/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy: 0.9603  
Epoch 97229/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy: 0.9592  
Epoch 97230/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy: 0.9590  
Epoch 97231/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy: 0.9594  
Epoch 97232/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy: 0.9603  
Epoch 97233/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0295 - accuracy: 0.9586  
Epoch 97234/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:

0.9597  
Epoch 97235/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy: 0.9587  
Epoch 97236/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0301 - accuracy: 0.9601  
Epoch 97237/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0298 - accuracy: 0.9592  
Epoch 97238/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0296 - accuracy: 0.9599  
Epoch 97239/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9597  
Epoch 97240/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy: 0.9597  
Epoch 97241/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9592  
Epoch 97242/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy: 0.9592  
Epoch 97243/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy: 0.9594  
Epoch 97244/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy: 0.9604  
Epoch 97245/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9595  
Epoch 97246/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy: 0.9593  
Epoch 97247/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy: 0.9592  
Epoch 97248/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy: 0.9596  
Epoch 97249/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy: 0.9604  
Epoch 97250/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0281 - accuracy:

0.9588  
Epoch 97251/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy: 0.9597  
Epoch 97252/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy: 0.9598  
Epoch 97253/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0282 - accuracy: 0.9598  
Epoch 97254/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy: 0.9589  
Epoch 97255/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0280 - accuracy: 0.9593  
Epoch 97256/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy: 0.9599  
Epoch 97257/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0282 - accuracy: 0.9602  
Epoch 97258/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0280 - accuracy: 0.9589  
Epoch 97259/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0280 - accuracy: 0.9587  
Epoch 97260/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0286 - accuracy: 0.9610  
Epoch 97261/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy: 0.9598  
Epoch 97262/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9591  
Epoch 97263/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy: 0.9609  
Epoch 97264/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0290 - accuracy: 0.9597  
Epoch 97265/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy: 0.9600  
Epoch 97266/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy:

0.9593  
Epoch 97267/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
0.9596  
Epoch 97268/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
0.9602  
Epoch 97269/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0293 - accuracy:  
0.9610  
Epoch 97270/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:  
0.9600  
Epoch 97271/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9602  
Epoch 97272/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
0.9590  
Epoch 97273/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0284 - accuracy:  
0.9603  
Epoch 97274/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy:  
0.9596  
Epoch 97275/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
0.9607  
Epoch 97276/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0281 - accuracy:  
0.9589  
Epoch 97277/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0285 - accuracy:  
0.9596  
Epoch 97278/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0288 - accuracy:  
0.9591  
Epoch 97279/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0282 - accuracy:  
0.9598  
Epoch 97280/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
0.9605  
Epoch 97281/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0289 - accuracy:  
0.9601  
Epoch 97282/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:

0.9595  
Epoch 97283/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0281 - accuracy: 0.9602  
Epoch 97284/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0281 - accuracy: 0.9588  
Epoch 97285/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9601  
Epoch 97286/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy: 0.9593  
Epoch 97287/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy: 0.9598  
Epoch 97288/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy: 0.9596  
Epoch 97289/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0291 - accuracy: 0.9597  
Epoch 97290/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9597  
Epoch 97291/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0294 - accuracy: 0.9599  
Epoch 99083/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy: 0.9592  
Epoch 99084/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy: 0.9601  
Epoch 99085/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0293 - accuracy: 0.9597  
Epoch 99086/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0298 - accuracy: 0.9604  
Epoch 99087/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0304 - accuracy: 0.9602  
Epoch 99088/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0293 - accuracy: 0.9586  
Epoch 99089/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:



0.9588  
 Epoch 99090/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0303 - accuracy:  
 0.9602  
 Epoch 99091/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0292 - accuracy:  
 0.9595  
 Epoch 99092/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0296 - accuracy:  
 0.9596  
 Epoch 99093/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:  
 0.9596  
 Epoch 99094/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
 0.9608  
 Epoch 99095/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0300 - accuracy:  
 0.9598  
 Epoch 99096/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0292 - accuracy:  
 0.9599  
 Epoch 99097/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0284 - accuracy:  
 0.9595  
 Epoch 99098/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0282 - accuracy:  
 0.9584  
 Epoch 99099/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0290 - accuracy:  
 0.9600  
 Epoch 99100/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
 0.9602  
 Epoch 99101/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0284 - accuracy:  
 0.9591  
 Epoch 99102/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy:  
 0.9591  
 Epoch 99103/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
 0.9605  
 Epoch 99104/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy:  
 0.9591  
 Epoch 99105/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0285 - accuracy:

0.9589  
 Epoch 99106/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
 0.9590  
 Epoch 99107/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
 0.9600  
 Epoch 99108/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
 0.9599  
 Epoch 99109/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
 0.9596  
 Epoch 99110/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0292 - accuracy:  
 0.9599  
 Epoch 99111/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0281 - accuracy:  
 0.9591  
 Epoch 99112/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
 0.9596  
 Epoch 99113/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:  
 0.9592  
 Epoch 99114/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy:  
 0.9589  
 Epoch 99115/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0283 - accuracy:  
 0.9593  
 Epoch 99116/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0282 - accuracy:  
 0.9599  
 Epoch 99117/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
 0.9601  
 Epoch 99118/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy:  
 0.9589  
 Epoch 99119/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0280 - accuracy:  
 0.9596  
 Epoch 99120/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0283 - accuracy:  
 0.9602  
 Epoch 99121/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0284 - accuracy:

0.9607  
Epoch 99122/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0282 - accuracy:  
0.9594  
Epoch 99123/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0280 - accuracy:  
0.9593  
Epoch 99124/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0285 - accuracy:  
0.9590  
Epoch 99125/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:  
0.9598  
Epoch 99126/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0284 - accuracy:  
0.9589  
Epoch 99127/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9587  
Epoch 99128/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9594  
Epoch 99129/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9595  
Epoch 99130/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0296 - accuracy:  
0.9600  
Epoch 99131/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
0.9601  
Epoch 99132/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0287 - accuracy:  
0.9600  
Epoch 99133/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
0.9597  
Epoch 99134/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy:  
0.9593  
Epoch 99135/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0281 - accuracy:  
0.9586  
Epoch 99136/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
0.9589  
Epoch 99137/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:

0.9598  
Epoch 99138/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9598  
Epoch 99139/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0284 - accuracy:  
0.9600  
Epoch 99140/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:  
0.9601  
Epoch 99141/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy:  
0.9604  
Epoch 99142/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9600  
Epoch 99143/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:  
0.9593  
Epoch 99144/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:  
0.9598  
Epoch 99145/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0286 - accuracy:  
0.9584  
Epoch 99146/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
0.9599  
Epoch 99147/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9585  
Epoch 99148/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy:  
0.9607  
Epoch 99149/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0287 - accuracy:  
0.9596  
Epoch 99150/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy:  
0.9591  
Epoch 99151/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
0.9599  
Epoch 99152/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:  
0.9599  
Epoch 99153/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0284 - accuracy:

0.9592  
Epoch 99154/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0288 - accuracy:  
0.9596  
Epoch 99155/100000  
2/2 [=====] - 0s 113ms/step - loss: 0.0282 - accuracy:  
0.9593  
Epoch 99156/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0284 - accuracy:  
0.9595  
Epoch 99157/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9601  
Epoch 99158/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy:  
0.9594  
Epoch 99159/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy:  
0.9600  
Epoch 99160/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy:  
0.9594  
Epoch 99161/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0285 - accuracy:  
0.9588  
Epoch 99162/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0284 - accuracy:  
0.9603  
Epoch 99163/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0293 - accuracy:  
0.9604  
Epoch 99164/100000  
2/2 [=====] - 0s 127ms/step - loss: 0.0291 - accuracy:  
0.9603  
Epoch 99165/100000  
2/2 [=====] - 0s 129ms/step - loss: 0.0286 - accuracy:  
0.9604  
Epoch 99166/100000  
2/2 [=====] - 0s 125ms/step - loss: 0.0287 - accuracy:  
0.9603  
Epoch 99167/100000  
2/2 [=====] - 0s 124ms/step - loss: 0.0287 - accuracy:  
0.9602  
Epoch 99168/100000  
2/2 [=====] - 0s 123ms/step - loss: 0.0287 - accuracy:  
0.9607  
Epoch 99169/100000  
2/2 [=====] - 0s 131ms/step - loss: 0.0288 - accuracy:

0.9593  
Epoch 99170/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0290 - accuracy: 0.9591  
Epoch 99171/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0283 - accuracy: 0.9601  
Epoch 99172/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy: 0.9591  
Epoch 99173/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0307 - accuracy: 0.9603  
Epoch 99174/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0294 - accuracy: 0.9585  
Epoch 99175/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0285 - accuracy: 0.9595  
Epoch 99176/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0290 - accuracy: 0.9597  
Epoch 99177/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy: 0.9603  
Epoch 99178/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0294 - accuracy: 0.9598  
Epoch 99179/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0282 - accuracy: 0.9593  
Epoch 99180/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0285 - accuracy: 0.9596  
Epoch 99181/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy: 0.9607  
Epoch 99182/100000  
2/2 [=====] - 0s 121ms/step - loss: 0.0283 - accuracy: 0.9585  
Epoch 99183/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy: 0.9591  
Epoch 99184/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy: 0.9597  
Epoch 99185/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy:

0.9593  
Epoch 99186/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy:  
0.9601  
Epoch 99187/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy:  
0.9608  
Epoch 99188/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0282 - accuracy:  
0.9592  
Epoch 99189/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:  
0.9603  
Epoch 99190/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
0.9589  
Epoch 99191/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
0.9595  
Epoch 99192/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
0.9604  
Epoch 99193/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0281 - accuracy:  
0.9597  
Epoch 99194/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0281 - accuracy:  
0.9597  
Epoch 99195/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0282 - accuracy:  
0.9598  
Epoch 99196/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0282 - accuracy:  
0.9591  
Epoch 99197/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0282 - accuracy:  
0.9599  
Epoch 99198/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy:  
0.9606  
Epoch 99199/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy:  
0.9607  
Epoch 99200/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
0.9588  
Epoch 99201/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0280 - accuracy:

0.9594  
Epoch 99202/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0282 - accuracy: 0.9598  
Epoch 99203/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0282 - accuracy: 0.9598  
Epoch 99204/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0281 - accuracy: 0.9601  
Epoch 99205/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0278 - accuracy: 0.9599  
Epoch 99206/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0279 - accuracy: 0.9592  
Epoch 99207/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0283 - accuracy: 0.9603  
Epoch 99208/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy: 0.9596  
Epoch 99209/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy: 0.9596  
Epoch 99210/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0280 - accuracy: 0.9605  
Epoch 99211/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0284 - accuracy: 0.9598  
Epoch 99212/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy: 0.9606  
Epoch 99213/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0289 - accuracy: 0.9584  
Epoch 99214/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy: 0.9583  
Epoch 99215/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0292 - accuracy: 0.9598  
Epoch 99216/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy: 0.9597  
Epoch 99217/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy:



0.9584  
Epoch 99218/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0292 - accuracy: 0.9593  
Epoch 99219/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0283 - accuracy: 0.9588  
Epoch 99220/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy: 0.9587  
Epoch 99221/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy: 0.9605  
Epoch 99222/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9599  
Epoch 99223/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy: 0.9591  
Epoch 99224/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy: 0.9604  
Epoch 99225/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy: 0.9603  
Epoch 99226/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0282 - accuracy: 0.9588  
Epoch 99227/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0280 - accuracy: 0.9590  
Epoch 99228/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy: 0.9583  
Epoch 99229/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0285 - accuracy: 0.9597  
Epoch 99230/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0288 - accuracy: 0.9598  
Epoch 99231/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9591  
Epoch 99232/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy: 0.9591  
Epoch 99233/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0281 - accuracy:

0.9590  
 Epoch 99234/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0284 - accuracy:  
 0.9605  
 Epoch 99235/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0281 - accuracy:  
 0.9599  
 Epoch 99236/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:  
 0.9602  
 Epoch 99237/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0288 - accuracy:  
 0.9596  
 Epoch 99238/100000  
 2/2 [=====] - 0s 122ms/step - loss: 0.0285 - accuracy:  
 0.9599  
 Epoch 99239/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:  
 0.9593  
 Epoch 99240/100000  
 2/2 [=====] - 0s 117ms/step - loss: 0.0283 - accuracy:  
 0.9590  
 Epoch 99241/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0279 - accuracy:  
 0.9596  
 Epoch 99242/100000  
 2/2 [=====] - 0s 116ms/step - loss: 0.0287 - accuracy:  
 0.9601  
 Epoch 99243/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0286 - accuracy:  
 0.9598  
 Epoch 99244/100000  
 2/2 [=====] - 0s 119ms/step - loss: 0.0285 - accuracy:  
 0.9596  
 Epoch 99245/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:  
 0.9603  
 Epoch 99246/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0283 - accuracy:  
 0.9587  
 Epoch 99247/100000  
 2/2 [=====] - 0s 114ms/step - loss: 0.0284 - accuracy:  
 0.9595  
 Epoch 99248/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:  
 0.9598  
 Epoch 99249/100000  
 2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:

0.9597  
Epoch 99250/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0286 - accuracy: 0.9583  
Epoch 99251/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy: 0.9600  
Epoch 99252/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9597  
Epoch 99253/100000  
2/2 [=====] - 0s 120ms/step - loss: 0.0286 - accuracy: 0.9586  
Epoch 99254/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy: 0.9599  
Epoch 99255/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0287 - accuracy: 0.9592  
Epoch 99256/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0282 - accuracy: 0.9591  
Epoch 99257/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0281 - accuracy: 0.9588  
Epoch 99258/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy: 0.9593  
Epoch 99259/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0292 - accuracy: 0.9596  
Epoch 99260/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0287 - accuracy: 0.9597  
Epoch 99261/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0282 - accuracy: 0.9599  
Epoch 99262/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy: 0.9598  
Epoch 99263/100000  
2/2 [=====] - 0s 116ms/step - loss: 0.0281 - accuracy: 0.9596  
Epoch 99264/100000  
2/2 [=====] - 0s 117ms/step - loss: 0.0288 - accuracy: 0.9596  
Epoch 99265/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:

```

0.9601
Epoch 99266/100000
2/2 [=====] - 0s 116ms/step - loss: 0.0288 - accuracy:
0.9598
Epoch 99267/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:
0.9598
Epoch 99268/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:
0.9588
Epoch 99269/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0286 - accuracy:
0.9605
Epoch 99270/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:
0.9588
Epoch 99271/100000
2/2 [=====] - 0s 116ms/step - loss: 0.0289 - accuracy:
0.9585
Epoch 99272/100000
2/2 [=====] - 0s 117ms/step - loss: 0.0287 - accuracy:
0.9598
Epoch 99273/100000
2/2 [=====] - 0s 119ms/step - loss: 0.0292 - accuracy:
0.9595
Epoch 99274/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0290 - accuracy:
0.9600
Epoch 99275/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:
0.9595
Epoch 99276/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:
0.9585
Epoch 99277/100000
2/2 [=====] - 0s 116ms/step - loss: 0.0283 - accuracy:
0.9601
Epoch 99278/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy:
0.9598
Epoch 99279/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0289 - accuracy:
0.9586
Epoch 99280/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0283 - accuracy:
0.9592
Epoch 99281/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0285 - accuracy:

```

0.9592  
Epoch 99282/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0282 - accuracy: 0.9602  
Epoch 99283/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy: 0.9596  
Epoch 99284/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0286 - accuracy: 0.9594  
Epoch 99285/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0289 - accuracy: 0.9594  
Epoch 99286/100000  
2/2 [=====] - 0s 118ms/step - loss: 0.0293 - accuracy: 0.9602  
Epoch 99287/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy: 0.9591  
Epoch 99288/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy: 0.9599  
Epoch 99289/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0289 - accuracy: 0.9594  
Epoch 99290/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0291 - accuracy: 0.9599  
Epoch 99291/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy: 0.9587  
Epoch 99292/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0303 - accuracy: 0.9594  
Epoch 99293/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0299 - accuracy: 0.9608  
Epoch 99294/100000  
2/2 [=====] - 0s 119ms/step - loss: 0.0294 - accuracy: 0.9594  
Epoch 99979/100000  
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy: 0.9594  
Epoch 99980/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0290 - accuracy: 0.9594  
Epoch 99981/100000  
2/2 [=====] - 0s 115ms/step - loss: 0.0284 - accuracy:

```

0.9589
Epoch 99982/100000
2/2 [=====] - 0s 117ms/step - loss: 0.0286 - accuracy:
0.9598
Epoch 99983/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0285 - accuracy:
0.9586
Epoch 99984/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0295 - accuracy:
0.9600
Epoch 99985/100000
2/2 [=====] - 0s 117ms/step - loss: 0.0296 - accuracy:
0.9603
Epoch 99986/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:
0.9598
Epoch 99987/100000
2/2 [=====] - 0s 116ms/step - loss: 0.0297 - accuracy:
0.9609
Epoch 99988/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0302 - accuracy:
0.9594
Epoch 99989/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:
0.9600
Epoch 99990/100000
2/2 [=====] - 0s 116ms/step - loss: 0.0295 - accuracy:
0.9597
Epoch 99991/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0294 - accuracy:
0.9603
Epoch 99992/100000
2/2 [=====] - 0s 114ms/step - loss: 0.0298 - accuracy:
0.9604
Epoch 99993/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0300 - accuracy:
0.9602
Epoch 99994/100000
2/2 [=====] - 0s 119ms/step - loss: 0.0291 - accuracy:
0.9600
Epoch 99995/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0288 - accuracy:
0.9597
Epoch 99996/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0295 - accuracy:
0.9600
Epoch 99997/100000
2/2 [=====] - 0s 112ms/step - loss: 0.0299 - accuracy:

```

```

0.9607
Epoch 99998/100000
2/2 [=====] - 0s 112ms/step - loss: 0.0310 - accuracy:
0.9601
Epoch 99999/100000
2/2 [=====] - 0s 113ms/step - loss: 0.0302 - accuracy:
0.9586
Epoch 100000/100000
2/2 [=====] - 0s 115ms/step - loss: 0.0297 - accuracy:
0.9601

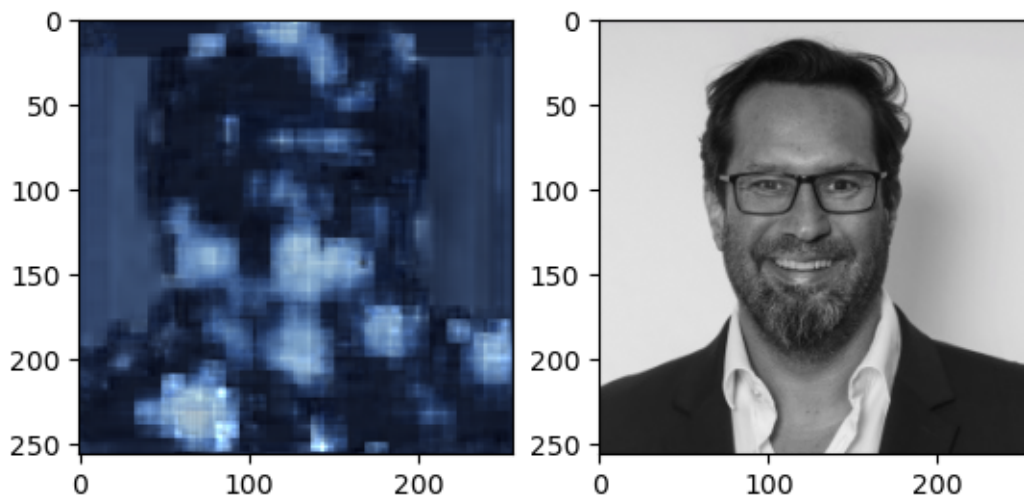
```

```
[22]: <tensorflow.python.keras.callbacks.History at 0x7fa11ff03730>
```

```
[23]: test_img = cv2.resize(cv2.imread("data/heisenberg_heisenberg/
↳ gernot-heisenberg-original.jpg"), (SIZE, SIZE))
test_img = test_img / 255
```

```
[24]: walter = autoencoder.predict(test_img[np.newaxis, :])
fig, axs = plt.subplots(1, 2)
axs[0].imshow(walter[0])
axs[1].imshow(test_img)
plt.show()
```

Clipping input data to the valid range for imshow with RGB data ([0..1] for floats or [0..255] for integers).



```
[25]: autoencoder.save("domain_adapt_autoenc_epochs_100000" + ".model")
```

2023-12-06 23:04:20.862217: W tensorflow/python/util/util.cc:348] Sets are not currently considered sequences, but this may change in the future, so consider

avoiding using them.

```
INFO:tensorflow:Assets written to:  
domain_adapt_autoenc_epochs_100000.model/assets
```

[ ]: