

C1_W1_Lab_2_multi-output

December 19, 2020

1 Ungraded Lab: Build a Multi-output Model

In this lab, we'll show how you can build models with more than one output. The dataset we will be working on is available from the [UCI Machine Learning Repository](#). It is an Energy Efficiency dataset which uses the building features (e.g. wall area, roof area) as inputs and has two outputs: Cooling Load and Heating Load. Let's see how we can build a model to train on this data.

1.1 Imports

```
[1]: try:
      # %tensorflow_version only exists in Colab.
      %tensorflow_version 2.x
    except Exception:
        pass

    import tensorflow as tf
    import numpy as np
    import matplotlib.pyplot as plt
    import pandas as pd
    from tensorflow.keras.models import Model
    from tensorflow.keras.layers import Dense, Input
    from sklearn.model_selection import train_test_split
```

1.2 Utilities

We define a few utilities for data conversion and visualization to make our code more neat.

```
[2]: def format_output(data):
      y1 = data.pop('Y1')
      y1 = np.array(y1)
      y2 = data.pop('Y2')
      y2 = np.array(y2)
      return y1, y2

    def norm(x):
```

```

    return (x - train_stats['mean']) / train_stats['std']

def plot_diff(y_true, y_pred, title=''):
    plt.scatter(y_true, y_pred)
    plt.title(title)
    plt.xlabel('True Values')
    plt.ylabel('Predictions')
    plt.axis('equal')
    plt.axis('square')
    plt.xlim(plt.xlim())
    plt.ylim(plt.ylim())
    plt.plot([-100, 100], [-100, 100])
    plt.show()

def plot_metrics(metric_name, title, ylim=5):
    plt.title(title)
    plt.ylim(0, ylim)
    plt.plot(history.history[metric_name], color='blue', label=metric_name)
    plt.plot(history.history['val_' + metric_name], color='green', label='val_' +
↪ metric_name)
    plt.show()

```

1.3 Prepare the Data

We download the dataset and format it for training.

```

[3]: # Get the data from UCI dataset
URL = 'https://archive.ics.uci.edu/ml/machine-learning-databases/00242/
↪ENB2012_data.xlsx'

# Use pandas excel reader
df = pd.read_excel(URL)
df = df.sample(frac=1).reset_index(drop=True)

# Split the data into train and test with 80 train / 20 test
train, test = train_test_split(df, test_size=0.2)
train_stats = train.describe()

# Get Y1 and Y2 as the 2 outputs and format them as np arrays
train_stats.pop('Y1')
train_stats.pop('Y2')
train_stats = train_stats.transpose()
train_Y = format_output(train)
test_Y = format_output(test)

```

```
# Normalize the training and test data
norm_train_X = norm(train)
norm_test_X = norm(test)
```

1.4 Build the Model

Here is how we'll build the model using the functional syntax. Notice that we can specify a list of outputs (i.e. [y1_output, y2_output]) when we instantiate the Model() class.

```
[4]: # Define model layers.
input_layer = Input(shape=(len(train.columns),))
first_dense = Dense(units='128', activation='relu')(input_layer)
second_dense = Dense(units='128', activation='relu')(first_dense)

# Y1 output will be fed directly from the second dense
y1_output = Dense(units='1', name='y1_output')(second_dense)
third_dense = Dense(units='64', activation='relu')(second_dense)

# Y2 output will come via the third dense
y2_output = Dense(units='1', name='y2_output')(third_dense)

# Define the model with the input layer and a list of output layers
model = Model(inputs=input_layer, outputs=[y1_output, y2_output])

print(model.summary())
```

Model: "model"

Layer (type)	Output Shape	Param #	Connected to
input_1 (InputLayer)	[(None, 8)]	0	
dense (Dense)	(None, 128)	1152	input_1[0][0]
dense_1 (Dense)	(None, 128)	16512	dense[0][0]
dense_2 (Dense)	(None, 64)	8256	dense_1[0][0]
y1_output (Dense)	(None, 1)	129	dense_1[0][0]

```
-----
y2_output (Dense)                (None, 1)                65                dense_2[0][0]
=====
```

```
=====
Total params: 26,114
Trainable params: 26,114
Non-trainable params: 0
-----
```

```
-----
None
```

1.5 Configure parameters

We specify the optimizer as well as the loss and metrics for each output.

```
[5]: # Specify the optimizer, and compile the model with loss functions for both
      ↪ outputs
optimizer = tf.keras.optimizers.SGD(lr=0.001)
model.compile(optimizer=optimizer,
              loss={'y1_output': 'mse', 'y2_output': 'mse'},
              metrics={'y1_output': tf.keras.metrics.RootMeanSquaredError(),
                       'y2_output': tf.keras.metrics.RootMeanSquaredError()})
```

1.6 Train the Model

```
[6]: # Train the model for 500 epochs
history = model.fit(norm_train_X, train_Y,
                    epochs=500, batch_size=10, validation_data=(norm_test_X,
      ↪ test_Y))
```

Train on 614 samples, validate on 154 samples

Epoch 1/500

```
614/614 [=====] - 1s 921us/sample - loss: 226.3378 -
y1_output_loss: 103.0009 - y2_output_loss: 121.9567 -
y1_output_root_mean_squared_error: 10.1789 - y2_output_root_mean_squared_error:
11.0782 - val_loss: 71.9175 - val_y1_output_loss: 18.6556 - val_y2_output_loss:
51.7822 - val_y1_output_root_mean_squared_error: 4.3918 -
val_y2_output_root_mean_squared_error: 7.2546
```

Epoch 2/500

```
614/614 [=====] - 0s 136us/sample - loss: 33.5812 -
y1_output_loss: 12.5817 - y2_output_loss: 20.7680 -
y1_output_root_mean_squared_error: 3.5590 - y2_output_root_mean_squared_error:
4.5733 - val_loss: 25.4223 - val_y1_output_loss: 10.6546 - val_y2_output_loss:
14.2026 - val_y1_output_root_mean_squared_error: 3.2929 -
val_y2_output_root_mean_squared_error: 3.8183
```

Epoch 3/500

614/614 [=====] - 0s 136us/sample - loss: 23.1171 -
y1_output_loss: 10.4198 - y2_output_loss: 12.8131 -
y1_output_root_mean_squared_error: 3.2061 - y2_output_root_mean_squared_error:
3.5831 - val_loss: 27.7435 - val_y1_output_loss: 13.0097 - val_y2_output_loss:
14.7475 - val_y1_output_root_mean_squared_error: 3.5852 -
val_y2_output_root_mean_squared_error: 3.8587

Epoch 4/500

614/614 [=====] - 0s 129us/sample - loss: 22.4823 -
y1_output_loss: 9.7579 - y2_output_loss: 12.6334 -
y1_output_root_mean_squared_error: 3.1233 - y2_output_root_mean_squared_error:
3.5675 - val_loss: 25.5607 - val_y1_output_loss: 11.3630 - val_y2_output_loss:
14.0629 - val_y1_output_root_mean_squared_error: 3.3529 -
val_y2_output_root_mean_squared_error: 3.7840

Epoch 5/500

614/614 [=====] - 0s 129us/sample - loss: 26.3320 -
y1_output_loss: 9.8894 - y2_output_loss: 16.2416 -
y1_output_root_mean_squared_error: 3.1589 - y2_output_root_mean_squared_error:
4.0439 - val_loss: 19.5947 - val_y1_output_loss: 8.3831 - val_y2_output_loss:
10.9852 - val_y1_output_root_mean_squared_error: 2.8971 -
val_y2_output_root_mean_squared_error: 3.3469

Epoch 6/500

614/614 [=====] - 0s 133us/sample - loss: 22.1376 -
y1_output_loss: 9.1318 - y2_output_loss: 12.9460 -
y1_output_root_mean_squared_error: 3.0208 - y2_output_root_mean_squared_error:
3.6073 - val_loss: 24.7342 - val_y1_output_loss: 12.1298 - val_y2_output_loss:
12.5410 - val_y1_output_root_mean_squared_error: 3.4708 -
val_y2_output_root_mean_squared_error: 3.5619

Epoch 7/500

614/614 [=====] - 0s 130us/sample - loss: 24.6229 -
y1_output_loss: 9.5237 - y2_output_loss: 14.9937 -
y1_output_root_mean_squared_error: 3.0880 - y2_output_root_mean_squared_error:
3.8842 - val_loss: 22.7599 - val_y1_output_loss: 8.8575 - val_y2_output_loss:
13.4796 - val_y1_output_root_mean_squared_error: 2.9914 -
val_y2_output_root_mean_squared_error: 3.7164

Epoch 8/500

614/614 [=====] - 0s 126us/sample - loss: 24.7508 -
y1_output_loss: 9.4388 - y2_output_loss: 15.1204 -
y1_output_root_mean_squared_error: 3.0842 - y2_output_root_mean_squared_error:
3.9036 - val_loss: 18.5552 - val_y1_output_loss: 7.8320 - val_y2_output_loss:
10.6153 - val_y1_output_root_mean_squared_error: 2.7816 -
val_y2_output_root_mean_squared_error: 3.2890

Epoch 9/500

614/614 [=====] - 0s 131us/sample - loss: 22.0416 -
y1_output_loss: 8.3899 - y2_output_loss: 13.4731 -
y1_output_root_mean_squared_error: 2.9092 - y2_output_root_mean_squared_error:
3.6848 - val_loss: 17.1202 - val_y1_output_loss: 7.1175 - val_y2_output_loss:
9.8873 - val_y1_output_root_mean_squared_error: 2.6579 -

```

val_y2_output_root_mean_squared_error: 3.1711
Epoch 10/500
614/614 [=====] - 0s 126us/sample - loss: 23.5137 -
y1_output_loss: 9.1123 - y2_output_loss: 14.5883 -
y1_output_root_mean_squared_error: 3.0153 - y2_output_root_mean_squared_error:
3.7976 - val_loss: 42.8089 - val_y1_output_loss: 11.8348 - val_y2_output_loss:
31.2262 - val_y1_output_root_mean_squared_error: 3.3796 -
val_y2_output_root_mean_squared_error: 5.6024
Epoch 11/500
614/614 [=====] - 0s 131us/sample - loss: 27.7904 -
y1_output_loss: 9.7943 - y2_output_loss: 17.8393 -
y1_output_root_mean_squared_error: 3.1284 - y2_output_root_mean_squared_error:
4.2431 - val_loss: 22.0653 - val_y1_output_loss: 10.7637 - val_y2_output_loss:
11.6526 - val_y1_output_root_mean_squared_error: 3.2232 -
val_y2_output_root_mean_squared_error: 3.4171
Epoch 12/500
614/614 [=====] - 0s 132us/sample - loss: 23.9271 -
y1_output_loss: 9.1138 - y2_output_loss: 14.6244 -
y1_output_root_mean_squared_error: 3.0326 - y2_output_root_mean_squared_error:
3.8381 - val_loss: 26.4790 - val_y1_output_loss: 10.9694 - val_y2_output_loss:
15.5332 - val_y1_output_root_mean_squared_error: 3.2857 -
val_y2_output_root_mean_squared_error: 3.9602
Epoch 13/500
614/614 [=====] - 0s 133us/sample - loss: 22.0656 -
y1_output_loss: 8.4346 - y2_output_loss: 13.4632 -
y1_output_root_mean_squared_error: 2.9163 - y2_output_root_mean_squared_error:
3.6825 - val_loss: 23.7356 - val_y1_output_loss: 7.9619 - val_y2_output_loss:
15.9681 - val_y1_output_root_mean_squared_error: 2.7701 -
val_y2_output_root_mean_squared_error: 4.0078
Epoch 14/500
614/614 [=====] - 0s 132us/sample - loss: 18.4365 -
y1_output_loss: 7.5394 - y2_output_loss: 10.8244 -
y1_output_root_mean_squared_error: 2.7559 - y2_output_root_mean_squared_error:
3.2926 - val_loss: 32.7727 - val_y1_output_loss: 9.0874 - val_y2_output_loss:
24.0496 - val_y1_output_root_mean_squared_error: 2.9456 -
val_y2_output_root_mean_squared_error: 4.9088
Epoch 15/500
614/614 [=====] - 0s 130us/sample - loss: 18.7420 -
y1_output_loss: 7.5668 - y2_output_loss: 11.0688 -
y1_output_root_mean_squared_error: 2.7582 - y2_output_root_mean_squared_error:
3.3368 - val_loss: 16.9806 - val_y1_output_loss: 6.6628 - val_y2_output_loss:
10.0365 - val_y1_output_root_mean_squared_error: 2.5820 -
val_y2_output_root_mean_squared_error: 3.2115
Epoch 16/500
614/614 [=====] - 0s 133us/sample - loss: 19.0911 -
y1_output_loss: 7.6298 - y2_output_loss: 11.4482 -
y1_output_root_mean_squared_error: 2.7582 - y2_output_root_mean_squared_error:
3.3887 - val_loss: 27.2164 - val_y1_output_loss: 7.6871 - val_y2_output_loss:

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18.9905 - val_y1_output_root_mean_squared_error: 2.7946 -
 val_y2_output_root_mean_squared_error: 4.4053
 Epoch 17/500
 614/614 [=====] - 0s 137us/sample - loss: 21.0696 -
 y1_output_loss: 7.8926 - y2_output_loss: 13.4582 -
 y1_output_root_mean_squared_error: 2.8159 - y2_output_root_mean_squared_error:
 3.6250 - val_loss: 59.5502 - val_y1_output_loss: 14.9433 - val_y2_output_loss:
 43.8973 - val_y1_output_root_mean_squared_error: 3.8548 -
 val_y2_output_root_mean_squared_error: 6.6851
 Epoch 18/500
 614/614 [=====] - 0s 134us/sample - loss: 16.8956 -
 y1_output_loss: 6.7087 - y2_output_loss: 10.0514 -
 y1_output_root_mean_squared_error: 2.5988 - y2_output_root_mean_squared_error:
 3.1846 - val_loss: 14.5929 - val_y1_output_loss: 6.1893 - val_y2_output_loss:
 8.4934 - val_y1_output_root_mean_squared_error: 2.4508 -
 val_y2_output_root_mean_squared_error: 2.9302
 Epoch 19/500
 614/614 [=====] - 0s 130us/sample - loss: 15.8730 -
 y1_output_loss: 6.1751 - y2_output_loss: 9.7235 -
 y1_output_root_mean_squared_error: 2.4754 - y2_output_root_mean_squared_error:
 3.1218 - val_loss: 22.1339 - val_y1_output_loss: 7.1593 - val_y2_output_loss:
 14.6405 - val_y1_output_root_mean_squared_error: 2.6680 -
 val_y2_output_root_mean_squared_error: 3.8750
 Epoch 20/500
 614/614 [=====] - 0s 127us/sample - loss: 18.9145 -
 y1_output_loss: 7.0914 - y2_output_loss: 11.6919 -
 y1_output_root_mean_squared_error: 2.6717 - y2_output_root_mean_squared_error:
 3.4317 - val_loss: 16.4689 - val_y1_output_loss: 5.3719 - val_y2_output_loss:
 11.0603 - val_y1_output_root_mean_squared_error: 2.2875 -
 val_y2_output_root_mean_squared_error: 3.3521
 Epoch 21/500
 614/614 [=====] - 0s 128us/sample - loss: 16.1425 -
 y1_output_loss: 6.1152 - y2_output_loss: 10.3011 -
 y1_output_root_mean_squared_error: 2.4561 - y2_output_root_mean_squared_error:
 3.1796 - val_loss: 15.6583 - val_y1_output_loss: 6.0092 - val_y2_output_loss:
 9.7964 - val_y1_output_root_mean_squared_error: 2.4065 -
 val_y2_output_root_mean_squared_error: 3.1412
 Epoch 22/500
 614/614 [=====] - 0s 132us/sample - loss: 16.1264 -
 y1_output_loss: 6.1808 - y2_output_loss: 10.0563 -
 y1_output_root_mean_squared_error: 2.4768 - y2_output_root_mean_squared_error:
 3.1610 - val_loss: 12.1367 - val_y1_output_loss: 5.2312 - val_y2_output_loss:
 7.0589 - val_y1_output_root_mean_squared_error: 2.2359 -
 val_y2_output_root_mean_squared_error: 2.6716
 Epoch 23/500
 614/614 [=====] - 0s 131us/sample - loss: 16.4727 -
 y1_output_loss: 6.1344 - y2_output_loss: 10.3780 -
 y1_output_root_mean_squared_error: 2.4752 - y2_output_root_mean_squared_error:

3.2165 - val_loss: 12.8273 - val_y1_output_loss: 5.0399 - val_y2_output_loss:
 7.7975 - val_y1_output_root_mean_squared_error: 2.2162 -
 val_y2_output_root_mean_squared_error: 2.8135
 Epoch 24/500
 614/614 [=====] - 0s 127us/sample - loss: 14.6982 -
 y1_output_loss: 5.8386 - y2_output_loss: 9.0015 -
 y1_output_root_mean_squared_error: 2.4020 - y2_output_root_mean_squared_error:
 2.9881 - val_loss: 14.9061 - val_y1_output_loss: 5.6507 - val_y2_output_loss:
 8.9763 - val_y1_output_root_mean_squared_error: 2.3819 -
 val_y2_output_root_mean_squared_error: 3.0386
 Epoch 25/500
 614/614 [=====] - 0s 122us/sample - loss: 12.7769 -
 y1_output_loss: 5.2122 - y2_output_loss: 7.6799 -
 y1_output_root_mean_squared_error: 2.2642 - y2_output_root_mean_squared_error:
 2.7659 - val_loss: 22.6394 - val_y1_output_loss: 7.2525 - val_y2_output_loss:
 14.7808 - val_y1_output_root_mean_squared_error: 2.7325 -
 val_y2_output_root_mean_squared_error: 3.8952
 Epoch 26/500
 614/614 [=====] - 0s 130us/sample - loss: 12.8561 -
 y1_output_loss: 4.9933 - y2_output_loss: 7.8407 -
 y1_output_root_mean_squared_error: 2.2308 - y2_output_root_mean_squared_error:
 2.8071 - val_loss: 12.8742 - val_y1_output_loss: 4.5078 - val_y2_output_loss:
 8.3377 - val_y1_output_root_mean_squared_error: 2.0896 -
 val_y2_output_root_mean_squared_error: 2.9168
 Epoch 27/500
 614/614 [=====] - 0s 133us/sample - loss: 13.7269 -
 y1_output_loss: 5.0006 - y2_output_loss: 8.6093 -
 y1_output_root_mean_squared_error: 2.2470 - y2_output_root_mean_squared_error:
 2.9459 - val_loss: 14.9326 - val_y1_output_loss: 5.8138 - val_y2_output_loss:
 9.0496 - val_y1_output_root_mean_squared_error: 2.3902 -
 val_y2_output_root_mean_squared_error: 3.0364
 Epoch 28/500
 614/614 [=====] - 0s 132us/sample - loss: 17.6756 -
 y1_output_loss: 5.7905 - y2_output_loss: 11.8277 -
 y1_output_root_mean_squared_error: 2.3982 - y2_output_root_mean_squared_error:
 3.4531 - val_loss: 14.7380 - val_y1_output_loss: 4.6732 - val_y2_output_loss:
 9.6862 - val_y1_output_root_mean_squared_error: 2.1723 -
 val_y2_output_root_mean_squared_error: 3.1653
 Epoch 29/500
 614/614 [=====] - 0s 130us/sample - loss: 13.9251 -
 y1_output_loss: 4.5620 - y2_output_loss: 9.2321 -
 y1_output_root_mean_squared_error: 2.1462 - y2_output_root_mean_squared_error:
 3.0527 - val_loss: 13.3924 - val_y1_output_loss: 5.1204 - val_y2_output_loss:
 8.2574 - val_y1_output_root_mean_squared_error: 2.2298 -
 val_y2_output_root_mean_squared_error: 2.9018
 Epoch 30/500
 614/614 [=====] - 0s 127us/sample - loss: 11.8913 -
 y1_output_loss: 4.3302 - y2_output_loss: 7.5651 -

y1_output_root_mean_squared_error: 2.0865 - y2_output_root_mean_squared_error:
 2.7455 - val_loss: 12.6235 - val_y1_output_loss: 4.0575 - val_y2_output_loss:
 8.5070 - val_y1_output_root_mean_squared_error: 1.9694 -
 val_y2_output_root_mean_squared_error: 2.9572
 Epoch 31/500
 614/614 [=====] - 0s 126us/sample - loss: 11.7039 -
 y1_output_loss: 4.2406 - y2_output_loss: 7.4489 -
 y1_output_root_mean_squared_error: 2.0506 - y2_output_root_mean_squared_error:
 2.7384 - val_loss: 8.8012 - val_y1_output_loss: 3.5048 - val_y2_output_loss:
 5.2695 - val_y1_output_root_mean_squared_error: 1.8423 -
 val_y2_output_root_mean_squared_error: 2.3253
 Epoch 32/500
 614/614 [=====] - 0s 131us/sample - loss: 12.1211 -
 y1_output_loss: 3.8174 - y2_output_loss: 8.1892 -
 y1_output_root_mean_squared_error: 1.9628 - y2_output_root_mean_squared_error:
 2.8755 - val_loss: 9.3755 - val_y1_output_loss: 3.5642 - val_y2_output_loss:
 5.7605 - val_y1_output_root_mean_squared_error: 1.8618 -
 val_y2_output_root_mean_squared_error: 2.4309
 Epoch 33/500
 614/614 [=====] - 0s 131us/sample - loss: 10.9124 -
 y1_output_loss: 3.7286 - y2_output_loss: 7.0822 -
 y1_output_root_mean_squared_error: 1.9396 - y2_output_root_mean_squared_error:
 2.6740 - val_loss: 12.1432 - val_y1_output_loss: 3.2321 - val_y2_output_loss:
 8.6364 - val_y1_output_root_mean_squared_error: 1.8012 -
 val_y2_output_root_mean_squared_error: 2.9831
 Epoch 34/500
 614/614 [=====] - 0s 128us/sample - loss: 17.8123 -
 y1_output_loss: 5.6875 - y2_output_loss: 12.0060 -
 y1_output_root_mean_squared_error: 2.3944 - y2_output_root_mean_squared_error:
 3.4755 - val_loss: 15.5560 - val_y1_output_loss: 4.1235 - val_y2_output_loss:
 11.3992 - val_y1_output_root_mean_squared_error: 1.9942 -
 val_y2_output_root_mean_squared_error: 3.4028
 Epoch 35/500
 614/614 [=====] - 0s 126us/sample - loss: 9.2239 -
 y1_output_loss: 3.1642 - y2_output_loss: 6.0971 -
 y1_output_root_mean_squared_error: 1.7688 - y2_output_root_mean_squared_error:
 2.4689 - val_loss: 7.6044 - val_y1_output_loss: 2.9041 - val_y2_output_loss:
 4.6434 - val_y1_output_root_mean_squared_error: 1.6787 -
 val_y2_output_root_mean_squared_error: 2.1878
 Epoch 36/500
 614/614 [=====] - 0s 130us/sample - loss: 9.7840 -
 y1_output_loss: 3.2699 - y2_output_loss: 6.4247 -
 y1_output_root_mean_squared_error: 1.8164 - y2_output_root_mean_squared_error:
 2.5465 - val_loss: 7.5369 - val_y1_output_loss: 3.0213 - val_y2_output_loss:
 4.5317 - val_y1_output_root_mean_squared_error: 1.6977 -
 val_y2_output_root_mean_squared_error: 2.1574
 Epoch 37/500
 614/614 [=====] - 0s 133us/sample - loss: 8.6747 -

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y1_output_loss: 2.9633 - y2_output_loss: 5.7643 -
y1_output_root_mean_squared_error: 1.7159 - y2_output_root_mean_squared_error:
2.3939 - val_loss: 8.5428 - val_y1_output_loss: 3.6118 - val_y2_output_loss:
4.8781 - val_y1_output_root_mean_squared_error: 1.8745 -
val_y2_output_root_mean_squared_error: 2.2426
Epoch 38/500
614/614 [=====] - 0s 130us/sample - loss: 9.6820 -
y1_output_loss: 3.1234 - y2_output_loss: 6.4678 -
y1_output_root_mean_squared_error: 1.7759 - y2_output_root_mean_squared_error:
2.5550 - val_loss: 8.1105 - val_y1_output_loss: 2.3748 - val_y2_output_loss:
5.5977 - val_y1_output_root_mean_squared_error: 1.5321 -
val_y2_output_root_mean_squared_error: 2.4006
Epoch 39/500
614/614 [=====] - 0s 132us/sample - loss: 8.5596 -
y1_output_loss: 2.9761 - y2_output_loss: 5.6432 -
y1_output_root_mean_squared_error: 1.7119 - y2_output_root_mean_squared_error:
2.3725 - val_loss: 9.9874 - val_y1_output_loss: 3.6413 - val_y2_output_loss:
6.1810 - val_y1_output_root_mean_squared_error: 1.8975 -
val_y2_output_root_mean_squared_error: 2.5272
Epoch 40/500
614/614 [=====] - 0s 132us/sample - loss: 9.5208 -
y1_output_loss: 2.9650 - y2_output_loss: 6.5009 -
y1_output_root_mean_squared_error: 1.7291 - y2_output_root_mean_squared_error:
2.5556 - val_loss: 7.0917 - val_y1_output_loss: 2.5727 - val_y2_output_loss:
4.4652 - val_y1_output_root_mean_squared_error: 1.5792 -
val_y2_output_root_mean_squared_error: 2.1443
Epoch 41/500
614/614 [=====] - 0s 132us/sample - loss: 9.8208 -
y1_output_loss: 3.2042 - y2_output_loss: 6.5344 -
y1_output_root_mean_squared_error: 1.7979 - y2_output_root_mean_squared_error:
2.5668 - val_loss: 8.3839 - val_y1_output_loss: 2.7494 - val_y2_output_loss:
5.4166 - val_y1_output_root_mean_squared_error: 1.6656 -
val_y2_output_root_mean_squared_error: 2.3684
Epoch 42/500
614/614 [=====] - 0s 133us/sample - loss: 9.2465 -
y1_output_loss: 2.7631 - y2_output_loss: 6.4881 -
y1_output_root_mean_squared_error: 1.6650 - y2_output_root_mean_squared_error:
2.5444 - val_loss: 8.2898 - val_y1_output_loss: 2.8802 - val_y2_output_loss:
5.3210 - val_y1_output_root_mean_squared_error: 1.6788 -
val_y2_output_root_mean_squared_error: 2.3391
Epoch 43/500
614/614 [=====] - 0s 129us/sample - loss: 9.7068 -
y1_output_loss: 3.0453 - y2_output_loss: 6.6235 -
y1_output_root_mean_squared_error: 1.7480 - y2_output_root_mean_squared_error:
2.5790 - val_loss: 9.3071 - val_y1_output_loss: 3.0907 - val_y2_output_loss:
6.1142 - val_y1_output_root_mean_squared_error: 1.7364 -
val_y2_output_root_mean_squared_error: 2.5084
Epoch 44/500

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614/614 [=====] - 0s 130us/sample - loss: 8.2911 -
y1_output_loss: 2.5325 - y2_output_loss: 5.8354 -
y1_output_root_mean_squared_error: 1.5959 - y2_output_root_mean_squared_error:
2.3967 - val_loss: 15.5493 - val_y1_output_loss: 4.8961 - val_y2_output_loss:
10.2187 - val_y1_output_root_mean_squared_error: 2.2293 -
val_y2_output_root_mean_squared_error: 3.2526
Epoch 45/500
614/614 [=====] - 0s 126us/sample - loss: 9.8822 -
y1_output_loss: 3.0341 - y2_output_loss: 6.9196 -
y1_output_root_mean_squared_error: 1.7336 - y2_output_root_mean_squared_error:
2.6224 - val_loss: 34.9295 - val_y1_output_loss: 13.1570 - val_y2_output_loss:
21.3351 - val_y1_output_root_mean_squared_error: 3.6241 -
val_y2_output_root_mean_squared_error: 4.6685
Epoch 46/500
614/614 [=====] - 0s 124us/sample - loss: 10.3394 -
y1_output_loss: 2.9744 - y2_output_loss: 7.3436 -
y1_output_root_mean_squared_error: 1.7299 - y2_output_root_mean_squared_error:
2.7105 - val_loss: 7.8239 - val_y1_output_loss: 2.6064 - val_y2_output_loss:
5.1942 - val_y1_output_root_mean_squared_error: 1.5804 -
val_y2_output_root_mean_squared_error: 2.3078
Epoch 47/500
614/614 [=====] - 0s 131us/sample - loss: 7.2293 -
y1_output_loss: 2.2862 - y2_output_loss: 4.9084 -
y1_output_root_mean_squared_error: 1.5144 - y2_output_root_mean_squared_error:
2.2217 - val_loss: 10.9926 - val_y1_output_loss: 2.5582 - val_y2_output_loss:
8.1958 - val_y1_output_root_mean_squared_error: 1.6100 -
val_y2_output_root_mean_squared_error: 2.8984
Epoch 48/500
614/614 [=====] - 0s 135us/sample - loss: 6.7176 -
y1_output_loss: 2.2052 - y2_output_loss: 4.4801 -
y1_output_root_mean_squared_error: 1.4893 - y2_output_root_mean_squared_error:
2.1212 - val_loss: 9.5450 - val_y1_output_loss: 2.4787 - val_y2_output_loss:
6.8160 - val_y1_output_root_mean_squared_error: 1.5931 -
val_y2_output_root_mean_squared_error: 2.6471
Epoch 49/500
614/614 [=====] - 0s 130us/sample - loss: 9.6096 -
y1_output_loss: 2.8534 - y2_output_loss: 6.7664 -
y1_output_root_mean_squared_error: 1.6917 - y2_output_root_mean_squared_error:
2.5977 - val_loss: 21.8822 - val_y1_output_loss: 6.4057 - val_y2_output_loss:
15.1681 - val_y1_output_root_mean_squared_error: 2.5186 -
val_y2_output_root_mean_squared_error: 3.9420
Epoch 50/500
614/614 [=====] - 0s 125us/sample - loss: 8.0492 -
y1_output_loss: 2.5660 - y2_output_loss: 5.5596 -
y1_output_root_mean_squared_error: 1.5861 - y2_output_root_mean_squared_error:
2.3523 - val_loss: 7.9752 - val_y1_output_loss: 3.4360 - val_y2_output_loss:
4.4440 - val_y1_output_root_mean_squared_error: 1.8399 -
val_y2_output_root_mean_squared_error: 2.1424

Epoch 51/500

614/614 [=====] - 0s 125us/sample - loss: 7.3060 -
y1_output_loss: 2.2934 - y2_output_loss: 5.0330 -
y1_output_root_mean_squared_error: 1.5044 - y2_output_root_mean_squared_error:
2.2456 - val_loss: 9.5959 - val_y1_output_loss: 2.8641 - val_y2_output_loss:
6.4778 - val_y1_output_root_mean_squared_error: 1.7158 -
val_y2_output_root_mean_squared_error: 2.5792

Epoch 52/500

614/614 [=====] - 0s 129us/sample - loss: 8.0608 -
y1_output_loss: 2.3362 - y2_output_loss: 5.7207 -
y1_output_root_mean_squared_error: 1.5334 - y2_output_root_mean_squared_error:
2.3894 - val_loss: 6.4421 - val_y1_output_loss: 2.4787 - val_y2_output_loss:
3.8536 - val_y1_output_root_mean_squared_error: 1.5651 -
val_y2_output_root_mean_squared_error: 1.9981

Epoch 53/500

614/614 [=====] - 0s 133us/sample - loss: 7.1848 -
y1_output_loss: 2.5092 - y2_output_loss: 4.6828 -
y1_output_root_mean_squared_error: 1.5717 - y2_output_root_mean_squared_error:
2.1713 - val_loss: 5.6607 - val_y1_output_loss: 1.7885 - val_y2_output_loss:
3.7488 - val_y1_output_root_mean_squared_error: 1.3389 -
val_y2_output_root_mean_squared_error: 1.9667

Epoch 54/500

614/614 [=====] - 0s 130us/sample - loss: 6.9383 -
y1_output_loss: 2.0194 - y2_output_loss: 4.8593 -
y1_output_root_mean_squared_error: 1.4275 - y2_output_root_mean_squared_error:
2.2137 - val_loss: 7.1817 - val_y1_output_loss: 2.1868 - val_y2_output_loss:
4.8977 - val_y1_output_root_mean_squared_error: 1.4608 -
val_y2_output_root_mean_squared_error: 2.2467

Epoch 55/500

614/614 [=====] - 0s 131us/sample - loss: 6.6886 -
y1_output_loss: 2.0776 - y2_output_loss: 4.6235 -
y1_output_root_mean_squared_error: 1.4283 - y2_output_root_mean_squared_error:
2.1561 - val_loss: 6.7369 - val_y1_output_loss: 2.1743 - val_y2_output_loss:
4.3683 - val_y1_output_root_mean_squared_error: 1.4922 -
val_y2_output_root_mean_squared_error: 2.1237

Epoch 56/500

614/614 [=====] - 0s 130us/sample - loss: 7.2248 -
y1_output_loss: 2.0917 - y2_output_loss: 5.0840 -
y1_output_root_mean_squared_error: 1.4471 - y2_output_root_mean_squared_error:
2.2651 - val_loss: 9.5191 - val_y1_output_loss: 2.0302 - val_y2_output_loss:
7.2941 - val_y1_output_root_mean_squared_error: 1.4256 -
val_y2_output_root_mean_squared_error: 2.7362

Epoch 57/500

614/614 [=====] - 0s 125us/sample - loss: 7.5658 -
y1_output_loss: 2.4011 - y2_output_loss: 5.1924 -
y1_output_root_mean_squared_error: 1.5567 - y2_output_root_mean_squared_error:
2.2677 - val_loss: 8.5492 - val_y1_output_loss: 3.4394 - val_y2_output_loss:
5.0480 - val_y1_output_root_mean_squared_error: 1.8298 -

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val_y2_output_root_mean_squared_error: 2.2806
Epoch 58/500
614/614 [=====] - 0s 132us/sample - loss: 6.7153 -
y1_output_loss: 2.1154 - y2_output_loss: 4.5924 -
y1_output_root_mean_squared_error: 1.4533 - y2_output_root_mean_squared_error:
2.1455 - val_loss: 6.2259 - val_y1_output_loss: 2.3075 - val_y2_output_loss:
3.8249 - val_y1_output_root_mean_squared_error: 1.5026 -
val_y2_output_root_mean_squared_error: 1.9920
Epoch 59/500
614/614 [=====] - 0s 130us/sample - loss: 8.2657 -
y1_output_loss: 2.4511 - y2_output_loss: 5.7551 -
y1_output_root_mean_squared_error: 1.5703 - y2_output_root_mean_squared_error:
2.4083 - val_loss: 7.3846 - val_y1_output_loss: 2.1080 - val_y2_output_loss:
5.0727 - val_y1_output_root_mean_squared_error: 1.4654 -
val_y2_output_root_mean_squared_error: 2.2885
Epoch 60/500
614/614 [=====] - 0s 128us/sample - loss: 7.8296 -
y1_output_loss: 2.2919 - y2_output_loss: 5.5897 -
y1_output_root_mean_squared_error: 1.5046 - y2_output_root_mean_squared_error:
2.3592 - val_loss: 18.3099 - val_y1_output_loss: 4.2053 - val_y2_output_loss:
13.6607 - val_y1_output_root_mean_squared_error: 2.0895 -
val_y2_output_root_mean_squared_error: 3.7341
Epoch 61/500
614/614 [=====] - 0s 123us/sample - loss: 8.6861 -
y1_output_loss: 2.7085 - y2_output_loss: 5.9021 -
y1_output_root_mean_squared_error: 1.6532 - y2_output_root_mean_squared_error:
2.4399 - val_loss: 8.8291 - val_y1_output_loss: 2.2168 - val_y2_output_loss:
6.4964 - val_y1_output_root_mean_squared_error: 1.4683 -
val_y2_output_root_mean_squared_error: 2.5833
Epoch 62/500
614/614 [=====] - 0s 133us/sample - loss: 8.4293 -
y1_output_loss: 2.3300 - y2_output_loss: 6.0894 -
y1_output_root_mean_squared_error: 1.5180 - y2_output_root_mean_squared_error:
2.4749 - val_loss: 13.3284 - val_y1_output_loss: 4.2338 - val_y2_output_loss:
8.6909 - val_y1_output_root_mean_squared_error: 2.0926 -
val_y2_output_root_mean_squared_error: 2.9916
Epoch 63/500
614/614 [=====] - 0s 129us/sample - loss: 6.7246 -
y1_output_loss: 1.9643 - y2_output_loss: 4.6989 -
y1_output_root_mean_squared_error: 1.4082 - y2_output_root_mean_squared_error:
2.1775 - val_loss: 7.5680 - val_y1_output_loss: 2.2452 - val_y2_output_loss:
5.1120 - val_y1_output_root_mean_squared_error: 1.5160 -
val_y2_output_root_mean_squared_error: 2.2956
Epoch 64/500
614/614 [=====] - 0s 133us/sample - loss: 9.6507 -
y1_output_loss: 2.7756 - y2_output_loss: 6.8569 -
y1_output_root_mean_squared_error: 1.6724 - y2_output_root_mean_squared_error:
2.6180 - val_loss: 8.7927 - val_y1_output_loss: 3.0698 - val_y2_output_loss:

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5.6544 - val_y1_output_root_mean_squared_error: 1.7308 -
val_y2_output_root_mean_squared_error: 2.4077
Epoch 65/500
614/614 [=====] - 0s 130us/sample - loss: 7.2162 -
y1_output_loss: 2.2226 - y2_output_loss: 4.9744 -
y1_output_root_mean_squared_error: 1.4919 - y2_output_root_mean_squared_error:
2.2339 - val_loss: 6.7123 - val_y1_output_loss: 2.4647 - val_y2_output_loss:
4.0887 - val_y1_output_root_mean_squared_error: 1.5735 -
val_y2_output_root_mean_squared_error: 2.0582
Epoch 66/500
614/614 [=====] - 0s 125us/sample - loss: 8.0432 -
y1_output_loss: 2.3465 - y2_output_loss: 5.6360 -
y1_output_root_mean_squared_error: 1.5376 - y2_output_root_mean_squared_error:
2.3830 - val_loss: 5.8845 - val_y1_output_loss: 2.1078 - val_y2_output_loss:
3.6375 - val_y1_output_root_mean_squared_error: 1.4530 -
val_y2_output_root_mean_squared_error: 1.9425
Epoch 67/500
614/614 [=====] - 0s 133us/sample - loss: 6.5270 -
y1_output_loss: 1.9653 - y2_output_loss: 4.5178 -
y1_output_root_mean_squared_error: 1.4077 - y2_output_root_mean_squared_error:
2.1320 - val_loss: 6.5297 - val_y1_output_loss: 2.3307 - val_y2_output_loss:
4.1399 - val_y1_output_root_mean_squared_error: 1.5022 -
val_y2_output_root_mean_squared_error: 2.0672
Epoch 68/500
614/614 [=====] - 0s 156us/sample - loss: 6.2085 -
y1_output_loss: 1.9315 - y2_output_loss: 4.3169 -
y1_output_root_mean_squared_error: 1.3929 - y2_output_root_mean_squared_error:
2.0660 - val_loss: 8.9564 - val_y1_output_loss: 2.3839 - val_y2_output_loss:
6.4270 - val_y1_output_root_mean_squared_error: 1.5284 -
val_y2_output_root_mean_squared_error: 2.5730
Epoch 69/500
614/614 [=====] - 0s 130us/sample - loss: 6.1606 -
y1_output_loss: 1.8747 - y2_output_loss: 4.2551 -
y1_output_root_mean_squared_error: 1.3683 - y2_output_root_mean_squared_error:
2.0709 - val_loss: 5.0156 - val_y1_output_loss: 1.4670 - val_y2_output_loss:
3.4492 - val_y1_output_root_mean_squared_error: 1.2054 -
val_y2_output_root_mean_squared_error: 1.8875
Epoch 70/500
614/614 [=====] - 0s 134us/sample - loss: 7.9288 -
y1_output_loss: 2.3189 - y2_output_loss: 5.5769 -
y1_output_root_mean_squared_error: 1.5268 - y2_output_root_mean_squared_error:
2.3659 - val_loss: 7.0030 - val_y1_output_loss: 2.7197 - val_y2_output_loss:
4.2542 - val_y1_output_root_mean_squared_error: 1.6368 -
val_y2_output_root_mean_squared_error: 2.0794
Epoch 71/500
614/614 [=====] - 0s 132us/sample - loss: 6.6460 -
y1_output_loss: 1.9608 - y2_output_loss: 4.6955 -
y1_output_root_mean_squared_error: 1.4027 - y2_output_root_mean_squared_error:

2.1630 - val_loss: 4.3993 - val_y1_output_loss: 1.3416 - val_y2_output_loss:
 2.9454 - val_y1_output_root_mean_squared_error: 1.1588 -
 val_y2_output_root_mean_squared_error: 1.7483
 Epoch 72/500
 614/614 [=====] - 0s 124us/sample - loss: 7.3577 -
 y1_output_loss: 2.2113 - y2_output_loss: 5.1738 -
 y1_output_root_mean_squared_error: 1.4823 - y2_output_root_mean_squared_error:
 2.2717 - val_loss: 17.0032 - val_y1_output_loss: 2.8018 - val_y2_output_loss:
 13.8396 - val_y1_output_root_mean_squared_error: 1.7032 -
 val_y2_output_root_mean_squared_error: 3.7553
 Epoch 73/500
 614/614 [=====] - 0s 134us/sample - loss: 6.3769 -
 y1_output_loss: 1.8751 - y2_output_loss: 4.4456 -
 y1_output_root_mean_squared_error: 1.3750 - y2_output_root_mean_squared_error:
 2.1181 - val_loss: 4.5881 - val_y1_output_loss: 1.6736 - val_y2_output_loss:
 2.8525 - val_y1_output_root_mean_squared_error: 1.2775 -
 val_y2_output_root_mean_squared_error: 1.7193
 Epoch 74/500
 614/614 [=====] - 0s 131us/sample - loss: 6.2130 -
 y1_output_loss: 1.5533 - y2_output_loss: 4.6037 -
 y1_output_root_mean_squared_error: 1.2519 - y2_output_root_mean_squared_error:
 2.1554 - val_loss: 4.7303 - val_y1_output_loss: 1.3322 - val_y2_output_loss:
 3.2825 - val_y1_output_root_mean_squared_error: 1.1566 -
 val_y2_output_root_mean_squared_error: 1.8419
 Epoch 75/500
 614/614 [=====] - 0s 135us/sample - loss: 5.4542 -
 y1_output_loss: 1.5510 - y2_output_loss: 3.8700 -
 y1_output_root_mean_squared_error: 1.2505 - y2_output_root_mean_squared_error:
 1.9724 - val_loss: 5.1539 - val_y1_output_loss: 1.3422 - val_y2_output_loss:
 3.6921 - val_y1_output_root_mean_squared_error: 1.1552 -
 val_y2_output_root_mean_squared_error: 1.9544
 Epoch 76/500
 614/614 [=====] - 0s 128us/sample - loss: 6.0989 -
 y1_output_loss: 1.4501 - y2_output_loss: 4.7767 -
 y1_output_root_mean_squared_error: 1.2093 - y2_output_root_mean_squared_error:
 2.1532 - val_loss: 18.5774 - val_y1_output_loss: 3.8911 - val_y2_output_loss:
 14.3799 - val_y1_output_root_mean_squared_error: 1.9640 -
 val_y2_output_root_mean_squared_error: 3.8367
 Epoch 77/500
 614/614 [=====] - 0s 130us/sample - loss: 5.4250 -
 y1_output_loss: 1.3934 - y2_output_loss: 3.9900 -
 y1_output_root_mean_squared_error: 1.1851 - y2_output_root_mean_squared_error:
 2.0051 - val_loss: 3.6556 - val_y1_output_loss: 1.0282 - val_y2_output_loss:
 2.5632 - val_y1_output_root_mean_squared_error: 1.0038 -
 val_y2_output_root_mean_squared_error: 1.6273
 Epoch 78/500
 614/614 [=====] - 0s 130us/sample - loss: 6.0708 -
 y1_output_loss: 1.7652 - y2_output_loss: 4.2594 -

y1_output_root_mean_squared_error: 1.3334 - y2_output_root_mean_squared_error:
 2.0719 - val_loss: 6.3980 - val_y1_output_loss: 1.5151 - val_y2_output_loss:
 4.7213 - val_y1_output_root_mean_squared_error: 1.2412 -
 val_y2_output_root_mean_squared_error: 2.2040
 Epoch 79/500
 614/614 [=====] - 0s 131us/sample - loss: 6.1027 -
 y1_output_loss: 1.3527 - y2_output_loss: 4.6987 -
 y1_output_root_mean_squared_error: 1.1685 - y2_output_root_mean_squared_error:
 2.1765 - val_loss: 6.5143 - val_y1_output_loss: 2.3660 - val_y2_output_loss:
 3.9976 - val_y1_output_root_mean_squared_error: 1.5394 -
 val_y2_output_root_mean_squared_error: 2.0358
 Epoch 80/500
 614/614 [=====] - 0s 134us/sample - loss: 6.3781 -
 y1_output_loss: 1.7429 - y2_output_loss: 4.5906 -
 y1_output_root_mean_squared_error: 1.3213 - y2_output_root_mean_squared_error:
 2.1523 - val_loss: 3.6403 - val_y1_output_loss: 0.8367 - val_y2_output_loss:
 2.7302 - val_y1_output_root_mean_squared_error: 0.9043 -
 val_y2_output_root_mean_squared_error: 1.6801
 Epoch 81/500
 614/614 [=====] - 0s 130us/sample - loss: 4.6100 -
 y1_output_loss: 1.1325 - y2_output_loss: 3.4369 -
 y1_output_root_mean_squared_error: 1.0691 - y2_output_root_mean_squared_error:
 1.8620 - val_loss: 3.0622 - val_y1_output_loss: 0.8362 - val_y2_output_loss:
 2.1454 - val_y1_output_root_mean_squared_error: 0.9174 -
 val_y2_output_root_mean_squared_error: 1.4901
 Epoch 82/500
 614/614 [=====] - 0s 131us/sample - loss: 3.9518 -
 y1_output_loss: 0.9811 - y2_output_loss: 2.9395 -
 y1_output_root_mean_squared_error: 0.9928 - y2_output_root_mean_squared_error:
 1.7223 - val_loss: 4.0863 - val_y1_output_loss: 1.4121 - val_y2_output_loss:
 2.6166 - val_y1_output_root_mean_squared_error: 1.1746 -
 val_y2_output_root_mean_squared_error: 1.6452
 Epoch 83/500
 614/614 [=====] - 0s 125us/sample - loss: 4.7908 -
 y1_output_loss: 1.1184 - y2_output_loss: 3.6567 -
 y1_output_root_mean_squared_error: 1.0535 - y2_output_root_mean_squared_error:
 1.9186 - val_loss: 3.6502 - val_y1_output_loss: 0.7526 - val_y2_output_loss:
 2.8396 - val_y1_output_root_mean_squared_error: 0.8595 -
 val_y2_output_root_mean_squared_error: 1.7063
 Epoch 84/500
 614/614 [=====] - 0s 126us/sample - loss: 4.0230 -
 y1_output_loss: 0.8329 - y2_output_loss: 3.2979 -
 y1_output_root_mean_squared_error: 0.9140 - y2_output_root_mean_squared_error:
 1.7854 - val_loss: 18.7984 - val_y1_output_loss: 4.0723 - val_y2_output_loss:
 14.2695 - val_y1_output_root_mean_squared_error: 2.0544 -
 val_y2_output_root_mean_squared_error: 3.8181
 Epoch 85/500
 614/614 [=====] - 0s 136us/sample - loss: 5.9774 -


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y1_output_loss: 1.6934 - y2_output_loss: 4.2689 -
y1_output_root_mean_squared_error: 1.3069 - y2_output_root_mean_squared_error:
2.0663 - val_loss: 5.8584 - val_y1_output_loss: 1.1077 - val_y2_output_loss:
4.6350 - val_y1_output_root_mean_squared_error: 1.0687 -
val_y2_output_root_mean_squared_error: 2.1717
Epoch 86/500
614/614 [=====] - 0s 130us/sample - loss: 4.3171 -
y1_output_loss: 1.0214 - y2_output_loss: 3.2803 -
y1_output_root_mean_squared_error: 1.0035 - y2_output_root_mean_squared_error:
1.8194 - val_loss: 7.0694 - val_y1_output_loss: 1.8199 - val_y2_output_loss:
5.0711 - val_y1_output_root_mean_squared_error: 1.3713 -
val_y2_output_root_mean_squared_error: 2.2779
Epoch 87/500
614/614 [=====] - 0s 128us/sample - loss: 4.0199 -
y1_output_loss: 0.9016 - y2_output_loss: 3.1492 -
y1_output_root_mean_squared_error: 0.9332 - y2_output_root_mean_squared_error:
1.7746 - val_loss: 3.9210 - val_y1_output_loss: 1.0449 - val_y2_output_loss:
2.8010 - val_y1_output_root_mean_squared_error: 1.0371 -
val_y2_output_root_mean_squared_error: 1.6869
Epoch 88/500
614/614 [=====] - 0s 132us/sample - loss: 4.1699 -
y1_output_loss: 1.0115 - y2_output_loss: 3.2109 -
y1_output_root_mean_squared_error: 0.9858 - y2_output_root_mean_squared_error:
1.7883 - val_loss: 6.5674 - val_y1_output_loss: 1.8007 - val_y2_output_loss:
4.7112 - val_y1_output_root_mean_squared_error: 1.3618 -
val_y2_output_root_mean_squared_error: 2.1709
Epoch 89/500
614/614 [=====] - 0s 128us/sample - loss: 5.2833 -
y1_output_loss: 1.2218 - y2_output_loss: 4.2199 -
y1_output_root_mean_squared_error: 1.0929 - y2_output_root_mean_squared_error:
2.0221 - val_loss: 19.9411 - val_y1_output_loss: 7.8318 - val_y2_output_loss:
12.3474 - val_y1_output_root_mean_squared_error: 2.7969 -
val_y2_output_root_mean_squared_error: 3.4811
Epoch 90/500
614/614 [=====] - 0s 131us/sample - loss: 4.6354 -
y1_output_loss: 1.2363 - y2_output_loss: 3.3683 -
y1_output_root_mean_squared_error: 1.1171 - y2_output_root_mean_squared_error:
1.8405 - val_loss: 4.2062 - val_y1_output_loss: 1.1146 - val_y2_output_loss:
2.9897 - val_y1_output_root_mean_squared_error: 1.0513 -
val_y2_output_root_mean_squared_error: 1.7609
Epoch 91/500
614/614 [=====] - 0s 130us/sample - loss: 4.2428 -
y1_output_loss: 0.9938 - y2_output_loss: 3.2780 -
y1_output_root_mean_squared_error: 0.9970 - y2_output_root_mean_squared_error:
1.8024 - val_loss: 8.5476 - val_y1_output_loss: 2.0050 - val_y2_output_loss:
6.3437 - val_y1_output_root_mean_squared_error: 1.4391 -
val_y2_output_root_mean_squared_error: 2.5449
Epoch 92/500

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614/614 [=====] - 0s 124us/sample - loss: 5.6242 -
y1_output_loss: 1.5323 - y2_output_loss: 4.0467 -
y1_output_root_mean_squared_error: 1.2424 - y2_output_root_mean_squared_error:
2.0201 - val_loss: 3.0430 - val_y1_output_loss: 0.7083 - val_y2_output_loss:
2.2722 - val_y1_output_root_mean_squared_error: 0.8442 -
val_y2_output_root_mean_squared_error: 1.5266
Epoch 93/500
614/614 [=====] - 0s 126us/sample - loss: 3.6232 -
y1_output_loss: 0.8164 - y2_output_loss: 2.7900 -
y1_output_root_mean_squared_error: 0.8989 - y2_output_root_mean_squared_error:
1.6779 - val_loss: 2.4024 - val_y1_output_loss: 0.5176 - val_y2_output_loss:
1.8267 - val_y1_output_root_mean_squared_error: 0.7260 -
val_y2_output_root_mean_squared_error: 1.3694
Epoch 94/500
614/614 [=====] - 0s 129us/sample - loss: 5.2544 -
y1_output_loss: 1.4362 - y2_output_loss: 3.8117 -
y1_output_root_mean_squared_error: 1.1971 - y2_output_root_mean_squared_error:
1.9548 - val_loss: 3.2052 - val_y1_output_loss: 0.5650 - val_y2_output_loss:
2.5815 - val_y1_output_root_mean_squared_error: 0.7534 -
val_y2_output_root_mean_squared_error: 1.6241
Epoch 95/500
614/614 [=====] - 0s 126us/sample - loss: 3.2450 -
y1_output_loss: 0.6217 - y2_output_loss: 2.6417 -
y1_output_root_mean_squared_error: 0.7899 - y2_output_root_mean_squared_error:
1.6189 - val_loss: 3.8990 - val_y1_output_loss: 1.2898 - val_y2_output_loss:
2.4942 - val_y1_output_root_mean_squared_error: 1.1505 -
val_y2_output_root_mean_squared_error: 1.6048
Epoch 96/500
614/614 [=====] - 0s 132us/sample - loss: 4.2283 -
y1_output_loss: 0.9606 - y2_output_loss: 3.2723 -
y1_output_root_mean_squared_error: 0.9819 - y2_output_root_mean_squared_error:
1.8067 - val_loss: 3.3009 - val_y1_output_loss: 0.6118 - val_y2_output_loss:
2.6494 - val_y1_output_root_mean_squared_error: 0.7677 -
val_y2_output_root_mean_squared_error: 1.6467
Epoch 97/500
614/614 [=====] - 0s 133us/sample - loss: 3.8484 -
y1_output_loss: 0.8562 - y2_output_loss: 3.0229 -
y1_output_root_mean_squared_error: 0.9288 - y2_output_root_mean_squared_error:
1.7280 - val_loss: 7.3495 - val_y1_output_loss: 0.8622 - val_y2_output_loss:
6.2964 - val_y1_output_root_mean_squared_error: 0.9256 -
val_y2_output_root_mean_squared_error: 2.5481
Epoch 98/500
614/614 [=====] - 0s 129us/sample - loss: 5.9868 -
y1_output_loss: 1.8162 - y2_output_loss: 4.1167 -
y1_output_root_mean_squared_error: 1.3536 - y2_output_root_mean_squared_error:
2.0383 - val_loss: 2.6354 - val_y1_output_loss: 0.6277 - val_y2_output_loss:
1.9708 - val_y1_output_root_mean_squared_error: 0.7880 -
val_y2_output_root_mean_squared_error: 1.4193

Epoch 99/500
614/614 [=====] - 0s 129us/sample - loss: 4.7783 -
y1_output_loss: 0.9224 - y2_output_loss: 3.8469 -
y1_output_root_mean_squared_error: 0.9639 - y2_output_root_mean_squared_error:
1.9620 - val_loss: 5.0255 - val_y1_output_loss: 1.2630 - val_y2_output_loss:
3.6444 - val_y1_output_root_mean_squared_error: 1.1197 -
val_y2_output_root_mean_squared_error: 1.9421
Epoch 100/500
614/614 [=====] - 0s 131us/sample - loss: 3.5735 -
y1_output_loss: 0.8190 - y2_output_loss: 2.7212 -
y1_output_root_mean_squared_error: 0.9092 - y2_output_root_mean_squared_error:
1.6574 - val_loss: 3.0111 - val_y1_output_loss: 0.9028 - val_y2_output_loss:
2.0228 - val_y1_output_root_mean_squared_error: 0.9592 -
val_y2_output_root_mean_squared_error: 1.4460
Epoch 101/500
614/614 [=====] - 0s 128us/sample - loss: 3.3243 -
y1_output_loss: 0.7614 - y2_output_loss: 2.5638 -
y1_output_root_mean_squared_error: 0.8725 - y2_output_root_mean_squared_error:
1.6009 - val_loss: 3.6382 - val_y1_output_loss: 0.8630 - val_y2_output_loss:
2.7371 - val_y1_output_root_mean_squared_error: 0.9208 -
val_y2_output_root_mean_squared_error: 1.6705
Epoch 102/500
614/614 [=====] - 0s 137us/sample - loss: 3.4195 -
y1_output_loss: 0.7513 - y2_output_loss: 2.7130 -
y1_output_root_mean_squared_error: 0.8691 - y2_output_root_mean_squared_error:
1.6322 - val_loss: 2.7885 - val_y1_output_loss: 0.8463 - val_y2_output_loss:
1.8712 - val_y1_output_root_mean_squared_error: 0.9244 -
val_y2_output_root_mean_squared_error: 1.3907
Epoch 103/500
614/614 [=====] - 0s 126us/sample - loss: 3.1355 -
y1_output_loss: 0.8080 - y2_output_loss: 2.3558 -
y1_output_root_mean_squared_error: 0.9027 - y2_output_root_mean_squared_error:
1.5233 - val_loss: 4.4358 - val_y1_output_loss: 0.5067 - val_y2_output_loss:
3.8557 - val_y1_output_root_mean_squared_error: 0.7109 -
val_y2_output_root_mean_squared_error: 1.9825
Epoch 104/500
614/614 [=====] - 0s 129us/sample - loss: 3.4304 -
y1_output_loss: 0.6828 - y2_output_loss: 2.7156 -
y1_output_root_mean_squared_error: 0.8301 - y2_output_root_mean_squared_error:
1.6557 - val_loss: 2.2762 - val_y1_output_loss: 0.5100 - val_y2_output_loss:
1.7182 - val_y1_output_root_mean_squared_error: 0.7218 -
val_y2_output_root_mean_squared_error: 1.3248
Epoch 105/500
614/614 [=====] - 0s 130us/sample - loss: 2.6900 -
y1_output_loss: 0.6180 - y2_output_loss: 2.0827 -
y1_output_root_mean_squared_error: 0.7845 - y2_output_root_mean_squared_error:
1.4403 - val_loss: 2.1205 - val_y1_output_loss: 0.3595 - val_y2_output_loss:
1.7278 - val_y1_output_root_mean_squared_error: 0.6000 -

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val_y2_output_root_mean_squared_error: 1.3268
Epoch 106/500
614/614 [=====] - 0s 129us/sample - loss: 3.7694 -
y1_output_loss: 0.9528 - y2_output_loss: 2.7896 -
y1_output_root_mean_squared_error: 0.9776 - y2_output_root_mean_squared_error:
1.6774 - val_loss: 2.4228 - val_y1_output_loss: 0.6510 - val_y2_output_loss:
1.7096 - val_y1_output_root_mean_squared_error: 0.8062 -
val_y2_output_root_mean_squared_error: 1.3315
Epoch 107/500
614/614 [=====] - 0s 140us/sample - loss: 3.1720 -
y1_output_loss: 0.7311 - y2_output_loss: 2.4218 -
y1_output_root_mean_squared_error: 0.8572 - y2_output_root_mean_squared_error:
1.5612 - val_loss: 2.9791 - val_y1_output_loss: 0.6361 - val_y2_output_loss:
2.3009 - val_y1_output_root_mean_squared_error: 0.8064 -
val_y2_output_root_mean_squared_error: 1.5261
Epoch 108/500
614/614 [=====] - 0s 124us/sample - loss: 3.5637 -
y1_output_loss: 0.8513 - y2_output_loss: 2.6913 -
y1_output_root_mean_squared_error: 0.9263 - y2_output_root_mean_squared_error:
1.6449 - val_loss: 3.0674 - val_y1_output_loss: 0.6016 - val_y2_output_loss:
2.3891 - val_y1_output_root_mean_squared_error: 0.7697 -
val_y2_output_root_mean_squared_error: 1.5732
Epoch 109/500
614/614 [=====] - 0s 129us/sample - loss: 2.7891 -
y1_output_loss: 0.5698 - y2_output_loss: 2.2082 -
y1_output_root_mean_squared_error: 0.7505 - y2_output_root_mean_squared_error:
1.4920 - val_loss: 1.9276 - val_y1_output_loss: 0.4017 - val_y2_output_loss:
1.4828 - val_y1_output_root_mean_squared_error: 0.6315 -
val_y2_output_root_mean_squared_error: 1.2365
Epoch 110/500
614/614 [=====] - 0s 131us/sample - loss: 5.3755 -
y1_output_loss: 1.3354 - y2_output_loss: 4.0064 -
y1_output_root_mean_squared_error: 1.1598 - y2_output_root_mean_squared_error:
2.0075 - val_loss: 2.4370 - val_y1_output_loss: 0.5763 - val_y2_output_loss:
1.8039 - val_y1_output_root_mean_squared_error: 0.7535 -
val_y2_output_root_mean_squared_error: 1.3672
Epoch 111/500
614/614 [=====] - 0s 130us/sample - loss: 2.8018 -
y1_output_loss: 0.5506 - y2_output_loss: 2.2260 -
y1_output_root_mean_squared_error: 0.7452 - y2_output_root_mean_squared_error:
1.4988 - val_loss: 2.0585 - val_y1_output_loss: 0.4105 - val_y2_output_loss:
1.6004 - val_y1_output_root_mean_squared_error: 0.6435 -
val_y2_output_root_mean_squared_error: 1.2824
Epoch 112/500
614/614 [=====] - 0s 123us/sample - loss: 2.6329 -
y1_output_loss: 0.6346 - y2_output_loss: 1.9905 -
y1_output_root_mean_squared_error: 0.7933 - y2_output_root_mean_squared_error:
1.4155 - val_loss: 3.0622 - val_y1_output_loss: 1.0692 - val_y2_output_loss:

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1.8999 - val_y1_output_root_mean_squared_error: 1.0492 -
 val_y2_output_root_mean_squared_error: 1.4005
 Epoch 113/500
 614/614 [=====] - 0s 126us/sample - loss: 2.7793 -
 y1_output_loss: 0.6223 - y2_output_loss: 2.1580 -
 y1_output_root_mean_squared_error: 0.7888 - y2_output_root_mean_squared_error:
 1.4687 - val_loss: 5.1884 - val_y1_output_loss: 0.9563 - val_y2_output_loss:
 4.1921 - val_y1_output_root_mean_squared_error: 0.9921 -
 val_y2_output_root_mean_squared_error: 2.0504
 Epoch 114/500
 614/614 [=====] - 0s 132us/sample - loss: 3.1435 -
 y1_output_loss: 0.6920 - y2_output_loss: 2.5166 -
 y1_output_root_mean_squared_error: 0.8319 - y2_output_root_mean_squared_error:
 1.5657 - val_loss: 19.5549 - val_y1_output_loss: 1.7233 - val_y2_output_loss:
 17.3886 - val_y1_output_root_mean_squared_error: 1.3178 -
 val_y2_output_root_mean_squared_error: 4.2212
 Epoch 115/500
 614/614 [=====] - 0s 131us/sample - loss: 8.0149 -
 y1_output_loss: 2.7764 - y2_output_loss: 5.1696 -
 y1_output_root_mean_squared_error: 1.6727 - y2_output_root_mean_squared_error:
 2.2841 - val_loss: 2.5761 - val_y1_output_loss: 0.5833 - val_y2_output_loss:
 1.9235 - val_y1_output_root_mean_squared_error: 0.7686 -
 val_y2_output_root_mean_squared_error: 1.4090
 Epoch 116/500
 614/614 [=====] - 0s 126us/sample - loss: 3.8066 -
 y1_output_loss: 1.0030 - y2_output_loss: 2.9663 -
 y1_output_root_mean_squared_error: 0.9706 - y2_output_root_mean_squared_error:
 1.6925 - val_loss: 36.3385 - val_y1_output_loss: 11.1786 - val_y2_output_loss:
 23.9992 - val_y1_output_root_mean_squared_error: 3.4070 -
 val_y2_output_root_mean_squared_error: 4.9730
 Epoch 117/500
 614/614 [=====] - 0s 127us/sample - loss: 5.0891 -
 y1_output_loss: 1.2164 - y2_output_loss: 3.8399 -
 y1_output_root_mean_squared_error: 1.1062 - y2_output_root_mean_squared_error:
 1.9661 - val_loss: 3.5473 - val_y1_output_loss: 0.9535 - val_y2_output_loss:
 2.4986 - val_y1_output_root_mean_squared_error: 0.9927 -
 val_y2_output_root_mean_squared_error: 1.6006
 Epoch 118/500
 614/614 [=====] - 0s 123us/sample - loss: 3.0650 -
 y1_output_loss: 0.6223 - y2_output_loss: 2.4805 -
 y1_output_root_mean_squared_error: 0.7921 - y2_output_root_mean_squared_error:
 1.5613 - val_loss: 7.5168 - val_y1_output_loss: 1.6829 - val_y2_output_loss:
 5.5901 - val_y1_output_root_mean_squared_error: 1.3117 -
 val_y2_output_root_mean_squared_error: 2.4075
 Epoch 119/500
 614/614 [=====] - 0s 130us/sample - loss: 2.8787 -
 y1_output_loss: 0.6518 - y2_output_loss: 2.2000 -
 y1_output_root_mean_squared_error: 0.8108 - y2_output_root_mean_squared_error:

1.4904 - val_loss: 1.7835 - val_y1_output_loss: 0.3489 - val_y2_output_loss:
 1.3850 - val_y1_output_root_mean_squared_error: 0.5925 -
 val_y2_output_root_mean_squared_error: 1.1968
 Epoch 120/500
 614/614 [=====] - 0s 131us/sample - loss: 2.8803 -
 y1_output_loss: 0.5706 - y2_output_loss: 2.2856 -
 y1_output_root_mean_squared_error: 0.7582 - y2_output_root_mean_squared_error:
 1.5184 - val_loss: 2.2910 - val_y1_output_loss: 0.6098 - val_y2_output_loss:
 1.6160 - val_y1_output_root_mean_squared_error: 0.7841 -
 val_y2_output_root_mean_squared_error: 1.2947
 Epoch 121/500
 614/614 [=====] - 0s 127us/sample - loss: 2.4324 -
 y1_output_loss: 0.4556 - y2_output_loss: 2.0022 -
 y1_output_root_mean_squared_error: 0.6761 - y2_output_root_mean_squared_error:
 1.4054 - val_loss: 11.0770 - val_y1_output_loss: 2.1091 - val_y2_output_loss:
 8.7112 - val_y1_output_root_mean_squared_error: 1.4786 -
 val_y2_output_root_mean_squared_error: 2.9817
 Epoch 122/500
 614/614 [=====] - 0s 130us/sample - loss: 2.9696 -
 y1_output_loss: 0.6972 - y2_output_loss: 2.2536 -
 y1_output_root_mean_squared_error: 0.8370 - y2_output_root_mean_squared_error:
 1.5063 - val_loss: 1.8636 - val_y1_output_loss: 0.4169 - val_y2_output_loss:
 1.3962 - val_y1_output_root_mean_squared_error: 0.6484 -
 val_y2_output_root_mean_squared_error: 1.2013
 Epoch 123/500
 614/614 [=====] - 0s 140us/sample - loss: 2.3902 -
 y1_output_loss: 0.5377 - y2_output_loss: 1.8615 -
 y1_output_root_mean_squared_error: 0.7332 - y2_output_root_mean_squared_error:
 1.3611 - val_loss: 3.0361 - val_y1_output_loss: 0.5087 - val_y2_output_loss:
 2.4685 - val_y1_output_root_mean_squared_error: 0.7220 -
 val_y2_output_root_mean_squared_error: 1.5858
 Epoch 124/500
 614/614 [=====] - 0s 131us/sample - loss: 3.1724 -
 y1_output_loss: 0.5698 - y2_output_loss: 2.5857 -
 y1_output_root_mean_squared_error: 0.7518 - y2_output_root_mean_squared_error:
 1.6147 - val_loss: 3.1751 - val_y1_output_loss: 0.4963 - val_y2_output_loss:
 2.6178 - val_y1_output_root_mean_squared_error: 0.7075 -
 val_y2_output_root_mean_squared_error: 1.6354
 Epoch 125/500
 614/614 [=====] - 0s 140us/sample - loss: 2.6530 -
 y1_output_loss: 0.5842 - y2_output_loss: 2.0536 -
 y1_output_root_mean_squared_error: 0.7628 - y2_output_root_mean_squared_error:
 1.4391 - val_loss: 3.5742 - val_y1_output_loss: 1.0713 - val_y2_output_loss:
 2.4077 - val_y1_output_root_mean_squared_error: 1.0509 -
 val_y2_output_root_mean_squared_error: 1.5716
 Epoch 126/500
 614/614 [=====] - 0s 132us/sample - loss: 2.9214 -
 y1_output_loss: 0.6976 - y2_output_loss: 2.2414 -

y1_output_root_mean_squared_error: 0.8358 - y2_output_root_mean_squared_error:
1.4909 - val_loss: 6.2046 - val_y1_output_loss: 1.8860 - val_y2_output_loss:
4.1528 - val_y1_output_root_mean_squared_error: 1.3841 -
val_y2_output_root_mean_squared_error: 2.0709
Epoch 127/500
614/614 [=====] - 0s 132us/sample - loss: 2.5718 -
y1_output_loss: 0.5810 - y2_output_loss: 1.9709 -
y1_output_root_mean_squared_error: 0.7638 - y2_output_root_mean_squared_error:
1.4101 - val_loss: 3.1747 - val_y1_output_loss: 1.0556 - val_y2_output_loss:
2.0125 - val_y1_output_root_mean_squared_error: 1.0425 -
val_y2_output_root_mean_squared_error: 1.4450
Epoch 128/500
614/614 [=====] - 0s 131us/sample - loss: 2.4030 -
y1_output_loss: 0.4534 - y2_output_loss: 1.9359 -
y1_output_root_mean_squared_error: 0.6753 - y2_output_root_mean_squared_error:
1.3953 - val_loss: 1.9880 - val_y1_output_loss: 0.4682 - val_y2_output_loss:
1.4708 - val_y1_output_root_mean_squared_error: 0.6894 -
val_y2_output_root_mean_squared_error: 1.2299
Epoch 129/500
614/614 [=====] - 0s 125us/sample - loss: 4.2996 -
y1_output_loss: 1.1275 - y2_output_loss: 3.1339 -
y1_output_root_mean_squared_error: 1.0666 - y2_output_root_mean_squared_error:
1.7782 - val_loss: 1.8374 - val_y1_output_loss: 0.3554 - val_y2_output_loss:
1.4315 - val_y1_output_root_mean_squared_error: 0.6010 -
val_y2_output_root_mean_squared_error: 1.2150
Epoch 130/500
614/614 [=====] - 0s 136us/sample - loss: 2.9798 -
y1_output_loss: 0.7369 - y2_output_loss: 2.2263 -
y1_output_root_mean_squared_error: 0.8601 - y2_output_root_mean_squared_error:
1.4967 - val_loss: 2.5969 - val_y1_output_loss: 0.4782 - val_y2_output_loss:
2.0660 - val_y1_output_root_mean_squared_error: 0.6996 -
val_y2_output_root_mean_squared_error: 1.4517
Epoch 131/500
614/614 [=====] - 0s 133us/sample - loss: 2.9757 -
y1_output_loss: 0.7410 - y2_output_loss: 2.2101 -
y1_output_root_mean_squared_error: 0.8641 - y2_output_root_mean_squared_error:
1.4930 - val_loss: 1.7710 - val_y1_output_loss: 0.3491 - val_y2_output_loss:
1.3761 - val_y1_output_root_mean_squared_error: 0.5935 -
val_y2_output_root_mean_squared_error: 1.1911
Epoch 132/500
614/614 [=====] - 0s 130us/sample - loss: 2.2956 -
y1_output_loss: 0.5102 - y2_output_loss: 1.7657 -
y1_output_root_mean_squared_error: 0.7170 - y2_output_root_mean_squared_error:
1.3347 - val_loss: 2.0252 - val_y1_output_loss: 0.5285 - val_y2_output_loss:
1.4418 - val_y1_output_root_mean_squared_error: 0.7290 -
val_y2_output_root_mean_squared_error: 1.2222
Epoch 133/500
614/614 [=====] - 0s 129us/sample - loss: 2.4432 -

y1_output_loss: 0.5895 - y2_output_loss: 1.8508 -
y1_output_root_mean_squared_error: 0.7714 - y2_output_root_mean_squared_error:
1.3595 - val_loss: 2.5092 - val_y1_output_loss: 0.3641 - val_y2_output_loss:
2.0867 - val_y1_output_root_mean_squared_error: 0.6051 -
val_y2_output_root_mean_squared_error: 1.4639
Epoch 134/500
614/614 [=====] - 0s 145us/sample - loss: 2.1147 -
y1_output_loss: 0.4443 - y2_output_loss: 1.6616 -
y1_output_root_mean_squared_error: 0.6643 - y2_output_root_mean_squared_error:
1.2936 - val_loss: 1.5593 - val_y1_output_loss: 0.3277 - val_y2_output_loss:
1.1813 - val_y1_output_root_mean_squared_error: 0.5783 -
val_y2_output_root_mean_squared_error: 1.1067
Epoch 135/500
614/614 [=====] - 0s 128us/sample - loss: 2.2816 -
y1_output_loss: 0.4601 - y2_output_loss: 1.8130 -
y1_output_root_mean_squared_error: 0.6794 - y2_output_root_mean_squared_error:
1.3491 - val_loss: 1.9074 - val_y1_output_loss: 0.3750 - val_y2_output_loss:
1.4749 - val_y1_output_root_mean_squared_error: 0.6144 -
val_y2_output_root_mean_squared_error: 1.2369
Epoch 136/500
614/614 [=====] - 0s 133us/sample - loss: 2.2321 -
y1_output_loss: 0.4997 - y2_output_loss: 1.7209 -
y1_output_root_mean_squared_error: 0.7092 - y2_output_root_mean_squared_error:
1.3150 - val_loss: 2.6807 - val_y1_output_loss: 0.4188 - val_y2_output_loss:
2.1980 - val_y1_output_root_mean_squared_error: 0.6493 -
val_y2_output_root_mean_squared_error: 1.5030
Epoch 137/500
614/614 [=====] - 0s 141us/sample - loss: 2.7532 -
y1_output_loss: 0.6650 - y2_output_loss: 2.0810 -
y1_output_root_mean_squared_error: 0.8177 - y2_output_root_mean_squared_error:
1.4438 - val_loss: 2.5965 - val_y1_output_loss: 0.4911 - val_y2_output_loss:
2.0430 - val_y1_output_root_mean_squared_error: 0.7108 -
val_y2_output_root_mean_squared_error: 1.4462
Epoch 138/500
614/614 [=====] - 0s 127us/sample - loss: 2.2825 -
y1_output_loss: 0.5284 - y2_output_loss: 1.7479 -
y1_output_root_mean_squared_error: 0.7297 - y2_output_root_mean_squared_error:
1.3229 - val_loss: 5.1164 - val_y1_output_loss: 0.5111 - val_y2_output_loss:
4.5006 - val_y1_output_root_mean_squared_error: 0.7214 -
val_y2_output_root_mean_squared_error: 2.1438
Epoch 139/500
614/614 [=====] - 0s 133us/sample - loss: 2.7926 -
y1_output_loss: 0.6458 - y2_output_loss: 2.1926 -
y1_output_root_mean_squared_error: 0.8044 - y2_output_root_mean_squared_error:
1.4647 - val_loss: 8.5877 - val_y1_output_loss: 1.1119 - val_y2_output_loss:
7.2396 - val_y1_output_root_mean_squared_error: 1.0642 -
val_y2_output_root_mean_squared_error: 2.7304
Epoch 140/500

614/614 [=====] - 0s 123us/sample - loss: 3.4470 -
y1_output_loss: 0.7934 - y2_output_loss: 2.6242 -
y1_output_root_mean_squared_error: 0.8948 - y2_output_root_mean_squared_error:
1.6268 - val_loss: 1.7753 - val_y1_output_loss: 0.3927 - val_y2_output_loss:
1.3344 - val_y1_output_root_mean_squared_error: 0.6309 -
val_y2_output_root_mean_squared_error: 1.1736
Epoch 141/500
614/614 [=====] - 0s 131us/sample - loss: 2.8003 -
y1_output_loss: 0.6805 - y2_output_loss: 2.1074 -
y1_output_root_mean_squared_error: 0.8250 - y2_output_root_mean_squared_error:
1.4559 - val_loss: 2.6269 - val_y1_output_loss: 0.6773 - val_y2_output_loss:
1.8782 - val_y1_output_root_mean_squared_error: 0.8299 -
val_y2_output_root_mean_squared_error: 1.3922
Epoch 142/500
614/614 [=====] - 0s 131us/sample - loss: 4.1849 -
y1_output_loss: 1.0845 - y2_output_loss: 3.0668 -
y1_output_root_mean_squared_error: 1.0460 - y2_output_root_mean_squared_error:
1.7581 - val_loss: 2.9240 - val_y1_output_loss: 0.4350 - val_y2_output_loss:
2.4094 - val_y1_output_root_mean_squared_error: 0.6697 -
val_y2_output_root_mean_squared_error: 1.5734
Epoch 143/500
614/614 [=====] - 0s 124us/sample - loss: 2.2916 -
y1_output_loss: 0.5171 - y2_output_loss: 1.7869 -
y1_output_root_mean_squared_error: 0.7123 - y2_output_root_mean_squared_error:
1.3358 - val_loss: 5.3276 - val_y1_output_loss: 1.1556 - val_y2_output_loss:
4.0446 - val_y1_output_root_mean_squared_error: 1.0920 -
val_y2_output_root_mean_squared_error: 2.0335
Epoch 144/500
614/614 [=====] - 0s 131us/sample - loss: 2.7524 -
y1_output_loss: 0.7262 - y2_output_loss: 2.0392 -
y1_output_root_mean_squared_error: 0.8474 - y2_output_root_mean_squared_error:
1.4263 - val_loss: 2.3724 - val_y1_output_loss: 0.4873 - val_y2_output_loss:
1.8726 - val_y1_output_root_mean_squared_error: 0.6965 -
val_y2_output_root_mean_squared_error: 1.3738
Epoch 145/500
614/614 [=====] - 0s 125us/sample - loss: 3.0363 -
y1_output_loss: 0.5620 - y2_output_loss: 2.4492 -
y1_output_root_mean_squared_error: 0.7526 - y2_output_root_mean_squared_error:
1.5716 - val_loss: 1.7433 - val_y1_output_loss: 0.4107 - val_y2_output_loss:
1.2796 - val_y1_output_root_mean_squared_error: 0.6464 -
val_y2_output_root_mean_squared_error: 1.1513
Epoch 146/500
614/614 [=====] - 0s 129us/sample - loss: 2.5724 -
y1_output_loss: 0.6667 - y2_output_loss: 2.0301 -
y1_output_root_mean_squared_error: 0.7705 - y2_output_root_mean_squared_error:
1.4067 - val_loss: 16.3269 - val_y1_output_loss: 5.7397 - val_y2_output_loss:
10.1229 - val_y1_output_root_mean_squared_error: 2.4371 -
val_y2_output_root_mean_squared_error: 3.2230

Epoch 147/500
614/614 [=====] - 0s 139us/sample - loss: 2.5180 -
y1_output_loss: 0.6966 - y2_output_loss: 1.8063 -
y1_output_root_mean_squared_error: 0.8337 - y2_output_root_mean_squared_error:
1.3502 - val_loss: 1.7171 - val_y1_output_loss: 0.4120 - val_y2_output_loss:
1.2539 - val_y1_output_root_mean_squared_error: 0.6457 -
val_y2_output_root_mean_squared_error: 1.1402
Epoch 148/500
614/614 [=====] - 0s 140us/sample - loss: 3.1724 -
y1_output_loss: 0.7905 - y2_output_loss: 2.3614 -
y1_output_root_mean_squared_error: 0.8920 - y2_output_root_mean_squared_error:
1.5417 - val_loss: 2.7905 - val_y1_output_loss: 0.7281 - val_y2_output_loss:
1.9995 - val_y1_output_root_mean_squared_error: 0.8563 -
val_y2_output_root_mean_squared_error: 1.4343
Epoch 149/500
614/614 [=====] - 0s 134us/sample - loss: 2.4582 -
y1_output_loss: 0.5157 - y2_output_loss: 1.9282 -
y1_output_root_mean_squared_error: 0.7210 - y2_output_root_mean_squared_error:
1.3922 - val_loss: 1.7874 - val_y1_output_loss: 0.4014 - val_y2_output_loss:
1.3559 - val_y1_output_root_mean_squared_error: 0.6314 -
val_y2_output_root_mean_squared_error: 1.1785
Epoch 150/500
614/614 [=====] - 0s 126us/sample - loss: 1.8543 -
y1_output_loss: 0.4100 - y2_output_loss: 1.4651 -
y1_output_root_mean_squared_error: 0.6417 - y2_output_root_mean_squared_error:
1.2011 - val_loss: 4.3453 - val_y1_output_loss: 0.5904 - val_y2_output_loss:
3.6607 - val_y1_output_root_mean_squared_error: 0.7732 -
val_y2_output_root_mean_squared_error: 1.9358
Epoch 151/500
614/614 [=====] - 0s 125us/sample - loss: 2.3096 -
y1_output_loss: 0.4552 - y2_output_loss: 1.8391 -
y1_output_root_mean_squared_error: 0.6761 - y2_output_root_mean_squared_error:
1.3611 - val_loss: 1.6010 - val_y1_output_loss: 0.3990 - val_y2_output_loss:
1.1636 - val_y1_output_root_mean_squared_error: 0.6324 -
val_y2_output_root_mean_squared_error: 1.0959
Epoch 152/500
614/614 [=====] - 0s 131us/sample - loss: 3.5645 -
y1_output_loss: 0.9867 - y2_output_loss: 2.5855 -
y1_output_root_mean_squared_error: 0.9881 - y2_output_root_mean_squared_error:
1.6088 - val_loss: 2.9900 - val_y1_output_loss: 1.1304 - val_y2_output_loss:
1.8003 - val_y1_output_root_mean_squared_error: 1.0696 -
val_y2_output_root_mean_squared_error: 1.3587
Epoch 153/500
614/614 [=====] - 0s 128us/sample - loss: 3.2478 -
y1_output_loss: 0.8034 - y2_output_loss: 2.4339 -
y1_output_root_mean_squared_error: 0.8965 - y2_output_root_mean_squared_error:
1.5634 - val_loss: 2.4248 - val_y1_output_loss: 0.5220 - val_y2_output_loss:
1.8477 - val_y1_output_root_mean_squared_error: 0.7340 -

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val_y2_output_root_mean_squared_error: 1.3733
Epoch 154/500
614/614 [=====] - 0s 125us/sample - loss: 2.1239 -
y1_output_loss: 0.4726 - y2_output_loss: 1.6561 -
y1_output_root_mean_squared_error: 0.6820 - y2_output_root_mean_squared_error:
1.2879 - val_loss: 2.3597 - val_y1_output_loss: 0.5426 - val_y2_output_loss:
1.7765 - val_y1_output_root_mean_squared_error: 0.7461 -
val_y2_output_root_mean_squared_error: 1.3428
Epoch 155/500
614/614 [=====] - 0s 130us/sample - loss: 2.2340 -
y1_output_loss: 0.5646 - y2_output_loss: 1.6625 -
y1_output_root_mean_squared_error: 0.7516 - y2_output_root_mean_squared_error:
1.2919 - val_loss: 2.0328 - val_y1_output_loss: 0.3555 - val_y2_output_loss:
1.6203 - val_y1_output_root_mean_squared_error: 0.6001 -
val_y2_output_root_mean_squared_error: 1.2933
Epoch 156/500
614/614 [=====] - 0s 130us/sample - loss: 2.0367 -
y1_output_loss: 0.4841 - y2_output_loss: 1.5477 -
y1_output_root_mean_squared_error: 0.6940 - y2_output_root_mean_squared_error:
1.2470 - val_loss: 2.0300 - val_y1_output_loss: 0.4931 - val_y2_output_loss:
1.4668 - val_y1_output_root_mean_squared_error: 0.7127 -
val_y2_output_root_mean_squared_error: 1.2337
Epoch 157/500
614/614 [=====] - 0s 131us/sample - loss: 1.8441 -
y1_output_loss: 0.3878 - y2_output_loss: 1.4680 -
y1_output_root_mean_squared_error: 0.6249 - y2_output_root_mean_squared_error:
1.2056 - val_loss: 7.6384 - val_y1_output_loss: 0.9770 - val_y2_output_loss:
6.4378 - val_y1_output_root_mean_squared_error: 1.0029 -
val_y2_output_root_mean_squared_error: 2.5754
Epoch 158/500
614/614 [=====] - 0s 128us/sample - loss: 2.1341 -
y1_output_loss: 0.4130 - y2_output_loss: 1.7080 -
y1_output_root_mean_squared_error: 0.6440 - y2_output_root_mean_squared_error:
1.3112 - val_loss: 1.4782 - val_y1_output_loss: 0.3628 - val_y2_output_loss:
1.0675 - val_y1_output_root_mean_squared_error: 0.6092 -
val_y2_output_root_mean_squared_error: 1.0522
Epoch 159/500
614/614 [=====] - 0s 122us/sample - loss: 2.0815 -
y1_output_loss: 0.4830 - y2_output_loss: 1.5903 -
y1_output_root_mean_squared_error: 0.6932 - y2_output_root_mean_squared_error:
1.2653 - val_loss: 1.3851 - val_y1_output_loss: 0.2850 - val_y2_output_loss:
1.0577 - val_y1_output_root_mean_squared_error: 0.5381 -
val_y2_output_root_mean_squared_error: 1.0467
Epoch 160/500
614/614 [=====] - 0s 134us/sample - loss: 2.7450 -
y1_output_loss: 0.6282 - y2_output_loss: 2.1030 -
y1_output_root_mean_squared_error: 0.7955 - y2_output_root_mean_squared_error:
1.4533 - val_loss: 1.8560 - val_y1_output_loss: 0.4117 - val_y2_output_loss:

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1.4016 - val_y1_output_root_mean_squared_error: 0.6428 -
 val_y2_output_root_mean_squared_error: 1.2011
 Epoch 161/500
 614/614 [=====] - 0s 129us/sample - loss: 1.5786 -
 y1_output_loss: 0.4123 - y2_output_loss: 1.1684 -
 y1_output_root_mean_squared_error: 0.6367 - y2_output_root_mean_squared_error:
 1.0831 - val_loss: 2.2001 - val_y1_output_loss: 0.3984 - val_y2_output_loss:
 1.7439 - val_y1_output_root_mean_squared_error: 0.6389 -
 val_y2_output_root_mean_squared_error: 1.3386
 Epoch 162/500
 614/614 [=====] - 0s 130us/sample - loss: 1.8380 -
 y1_output_loss: 0.4218 - y2_output_loss: 1.4043 -
 y1_output_root_mean_squared_error: 0.6493 - y2_output_root_mean_squared_error:
 1.1902 - val_loss: 1.4796 - val_y1_output_loss: 0.3506 - val_y2_output_loss:
 1.0810 - val_y1_output_root_mean_squared_error: 0.5987 -
 val_y2_output_root_mean_squared_error: 1.0588
 Epoch 163/500
 614/614 [=====] - 0s 129us/sample - loss: 2.2550 -
 y1_output_loss: 0.6475 - y2_output_loss: 1.8893 -
 y1_output_root_mean_squared_error: 0.7530 - y2_output_root_mean_squared_error:
 1.2992 - val_loss: 125.5858 - val_y1_output_loss: 38.3004 - val_y2_output_loss:
 84.0928 - val_y1_output_root_mean_squared_error: 6.2776 -
 val_y2_output_root_mean_squared_error: 9.2832
 Epoch 164/500
 614/614 [=====] - 0s 133us/sample - loss: 4.3822 -
 y1_output_loss: 1.3393 - y2_output_loss: 3.0603 -
 y1_output_root_mean_squared_error: 1.1592 - y2_output_root_mean_squared_error:
 1.7431 - val_loss: 24.2101 - val_y1_output_loss: 6.3085 - val_y2_output_loss:
 17.1587 - val_y1_output_root_mean_squared_error: 2.5571 -
 val_y2_output_root_mean_squared_error: 4.2037
 Epoch 165/500
 614/614 [=====] - 0s 128us/sample - loss: 2.6046 -
 y1_output_loss: 0.6994 - y2_output_loss: 1.9051 -
 y1_output_root_mean_squared_error: 0.8350 - y2_output_root_mean_squared_error:
 1.3811 - val_loss: 1.6806 - val_y1_output_loss: 0.3353 - val_y2_output_loss:
 1.3215 - val_y1_output_root_mean_squared_error: 0.5813 -
 val_y2_output_root_mean_squared_error: 1.1587
 Epoch 166/500
 614/614 [=====] - 0s 127us/sample - loss: 1.7801 -
 y1_output_loss: 0.4040 - y2_output_loss: 1.3640 -
 y1_output_root_mean_squared_error: 0.6373 - y2_output_root_mean_squared_error:
 1.1722 - val_loss: 2.2866 - val_y1_output_loss: 0.3848 - val_y2_output_loss:
 1.8502 - val_y1_output_root_mean_squared_error: 0.6249 -
 val_y2_output_root_mean_squared_error: 1.3770
 Epoch 167/500
 614/614 [=====] - 0s 133us/sample - loss: 2.0995 -
 y1_output_loss: 0.4643 - y2_output_loss: 1.6263 -
 y1_output_root_mean_squared_error: 0.6841 - y2_output_root_mean_squared_error:

1.2773 - val_loss: 1.8428 - val_y1_output_loss: 0.3122 - val_y2_output_loss:
 1.4800 - val_y1_output_root_mean_squared_error: 0.5635 -
 val_y2_output_root_mean_squared_error: 1.2350
 Epoch 168/500
 614/614 [=====] - 0s 129us/sample - loss: 1.9877 -
 y1_output_loss: 0.3907 - y2_output_loss: 1.5975 -
 y1_output_root_mean_squared_error: 0.6244 - y2_output_root_mean_squared_error:
 1.2641 - val_loss: 2.6148 - val_y1_output_loss: 0.4753 - val_y2_output_loss:
 2.0998 - val_y1_output_root_mean_squared_error: 0.6931 -
 val_y2_output_root_mean_squared_error: 1.4609
 Epoch 169/500
 614/614 [=====] - 0s 123us/sample - loss: 2.2813 -
 y1_output_loss: 0.4356 - y2_output_loss: 1.8511 -
 y1_output_root_mean_squared_error: 0.6601 - y2_output_root_mean_squared_error:
 1.3585 - val_loss: 2.1071 - val_y1_output_loss: 0.5740 - val_y2_output_loss:
 1.4892 - val_y1_output_root_mean_squared_error: 0.7652 -
 val_y2_output_root_mean_squared_error: 1.2335
 Epoch 170/500
 614/614 [=====] - 0s 132us/sample - loss: 2.6665 -
 y1_output_loss: 0.5454 - y2_output_loss: 2.1034 -
 y1_output_root_mean_squared_error: 0.7407 - y2_output_root_mean_squared_error:
 1.4553 - val_loss: 3.4149 - val_y1_output_loss: 0.5914 - val_y2_output_loss:
 2.7228 - val_y1_output_root_mean_squared_error: 0.7816 -
 val_y2_output_root_mean_squared_error: 1.6745
 Epoch 171/500
 614/614 [=====] - 0s 158us/sample - loss: 2.1920 -
 y1_output_loss: 0.4891 - y2_output_loss: 1.7034 -
 y1_output_root_mean_squared_error: 0.6982 - y2_output_root_mean_squared_error:
 1.3056 - val_loss: 5.5613 - val_y1_output_loss: 0.9132 - val_y2_output_loss:
 4.5295 - val_y1_output_root_mean_squared_error: 0.9649 -
 val_y2_output_root_mean_squared_error: 2.1518
 Epoch 172/500
 614/614 [=====] - 0s 130us/sample - loss: 1.9971 -
 y1_output_loss: 0.4391 - y2_output_loss: 1.5736 -
 y1_output_root_mean_squared_error: 0.6628 - y2_output_root_mean_squared_error:
 1.2481 - val_loss: 3.6437 - val_y1_output_loss: 0.3942 - val_y2_output_loss:
 3.1348 - val_y1_output_root_mean_squared_error: 0.6345 -
 val_y2_output_root_mean_squared_error: 1.8003
 Epoch 173/500
 614/614 [=====] - 0s 132us/sample - loss: 1.7446 -
 y1_output_loss: 0.4100 - y2_output_loss: 1.3225 -
 y1_output_root_mean_squared_error: 0.6417 - y2_output_root_mean_squared_error:
 1.1545 - val_loss: 2.0283 - val_y1_output_loss: 0.3812 - val_y2_output_loss:
 1.5935 - val_y1_output_root_mean_squared_error: 0.6243 -
 val_y2_output_root_mean_squared_error: 1.2800
 Epoch 174/500
 614/614 [=====] - 0s 128us/sample - loss: 2.0342 -
 y1_output_loss: 0.3733 - y2_output_loss: 1.6677 -

y1_output_root_mean_squared_error: 0.6130 - y2_output_root_mean_squared_error:
 1.2878 - val_loss: 1.5573 - val_y1_output_loss: 0.3766 - val_y2_output_loss:
 1.1379 - val_y1_output_root_mean_squared_error: 0.6210 -
 val_y2_output_root_mean_squared_error: 1.0824
 Epoch 175/500
 614/614 [=====] - 0s 130us/sample - loss: 2.8979 -
 y1_output_loss: 0.7171 - y2_output_loss: 2.1822 -
 y1_output_root_mean_squared_error: 0.8491 - y2_output_root_mean_squared_error:
 1.4755 - val_loss: 2.4596 - val_y1_output_loss: 0.4609 - val_y2_output_loss:
 2.0310 - val_y1_output_root_mean_squared_error: 0.6759 -
 val_y2_output_root_mean_squared_error: 1.4152
 Epoch 176/500
 614/614 [=====] - 0s 122us/sample - loss: 2.0175 -
 y1_output_loss: 0.4828 - y2_output_loss: 1.5252 -
 y1_output_root_mean_squared_error: 0.6946 - y2_output_root_mean_squared_error:
 1.2389 - val_loss: 2.3167 - val_y1_output_loss: 0.5800 - val_y2_output_loss:
 1.6698 - val_y1_output_root_mean_squared_error: 0.7733 -
 val_y2_output_root_mean_squared_error: 1.3110
 Epoch 177/500
 614/614 [=====] - 0s 128us/sample - loss: 1.7893 -
 y1_output_loss: 0.3615 - y2_output_loss: 1.4115 -
 y1_output_root_mean_squared_error: 0.6038 - y2_output_root_mean_squared_error:
 1.1936 - val_loss: 1.3535 - val_y1_output_loss: 0.3048 - val_y2_output_loss:
 1.0224 - val_y1_output_root_mean_squared_error: 0.5550 -
 val_y2_output_root_mean_squared_error: 1.0225
 Epoch 178/500
 614/614 [=====] - 0s 137us/sample - loss: 1.5587 -
 y1_output_loss: 0.3335 - y2_output_loss: 1.2194 -
 y1_output_root_mean_squared_error: 0.5798 - y2_output_root_mean_squared_error:
 1.1057 - val_loss: 1.4228 - val_y1_output_loss: 0.2905 - val_y2_output_loss:
 1.0896 - val_y1_output_root_mean_squared_error: 0.5465 -
 val_y2_output_root_mean_squared_error: 1.0603
 Epoch 179/500
 614/614 [=====] - 0s 128us/sample - loss: 1.8518 -
 y1_output_loss: 0.4188 - y2_output_loss: 1.4172 -
 y1_output_root_mean_squared_error: 0.6501 - y2_output_root_mean_squared_error:
 1.1955 - val_loss: 1.3849 - val_y1_output_loss: 0.3648 - val_y2_output_loss:
 0.9782 - val_y1_output_root_mean_squared_error: 0.6113 -
 val_y2_output_root_mean_squared_error: 1.0056
 Epoch 180/500
 614/614 [=====] - 0s 126us/sample - loss: 1.7366 -
 y1_output_loss: 0.3209 - y2_output_loss: 1.4131 -
 y1_output_root_mean_squared_error: 0.5676 - y2_output_root_mean_squared_error:
 1.1893 - val_loss: 1.5218 - val_y1_output_loss: 0.3283 - val_y2_output_loss:
 1.1625 - val_y1_output_root_mean_squared_error: 0.5786 -
 val_y2_output_root_mean_squared_error: 1.0895
 Epoch 181/500
 614/614 [=====] - 0s 127us/sample - loss: 1.6591 -

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y1_output_loss: 0.3795 - y2_output_loss: 1.2767 -
y1_output_root_mean_squared_error: 0.6131 - y2_output_root_mean_squared_error:
1.1328 - val_loss: 1.4786 - val_y1_output_loss: 0.4014 - val_y2_output_loss:
1.0372 - val_y1_output_root_mean_squared_error: 0.6410 -
val_y2_output_root_mean_squared_error: 1.0333
Epoch 182/500
614/614 [=====] - 0s 126us/sample - loss: 1.6206 -
y1_output_loss: 0.4034 - y2_output_loss: 1.2202 -
y1_output_root_mean_squared_error: 0.6363 - y2_output_root_mean_squared_error:
1.1026 - val_loss: 1.8786 - val_y1_output_loss: 0.3234 - val_y2_output_loss:
1.4994 - val_y1_output_root_mean_squared_error: 0.5762 -
val_y2_output_root_mean_squared_error: 1.2436
Epoch 183/500
614/614 [=====] - 0s 129us/sample - loss: 1.6000 -
y1_output_loss: 0.2998 - y2_output_loss: 1.2955 -
y1_output_root_mean_squared_error: 0.5445 - y2_output_root_mean_squared_error:
1.1417 - val_loss: 1.5272 - val_y1_output_loss: 0.2904 - val_y2_output_loss:
1.1854 - val_y1_output_root_mean_squared_error: 0.5474 -
val_y2_output_root_mean_squared_error: 1.1079
Epoch 184/500
614/614 [=====] - 0s 134us/sample - loss: 2.5932 -
y1_output_loss: 0.5772 - y2_output_loss: 2.0021 -
y1_output_root_mean_squared_error: 0.7615 - y2_output_root_mean_squared_error:
1.4189 - val_loss: 2.1481 - val_y1_output_loss: 0.5700 - val_y2_output_loss:
1.5073 - val_y1_output_root_mean_squared_error: 0.7669 -
val_y2_output_root_mean_squared_error: 1.2490
Epoch 185/500
614/614 [=====] - 0s 131us/sample - loss: 1.4976 -
y1_output_loss: 0.3322 - y2_output_loss: 1.1665 -
y1_output_root_mean_squared_error: 0.5774 - y2_output_root_mean_squared_error:
1.0789 - val_loss: 3.4372 - val_y1_output_loss: 0.3777 - val_y2_output_loss:
2.9581 - val_y1_output_root_mean_squared_error: 0.6233 -
val_y2_output_root_mean_squared_error: 1.7461
Epoch 186/500
614/614 [=====] - 0s 124us/sample - loss: 2.0726 -
y1_output_loss: 0.4508 - y2_output_loss: 1.6058 -
y1_output_root_mean_squared_error: 0.6741 - y2_output_root_mean_squared_error:
1.2721 - val_loss: 1.3220 - val_y1_output_loss: 0.2466 - val_y2_output_loss:
1.0313 - val_y1_output_root_mean_squared_error: 0.5039 -
val_y2_output_root_mean_squared_error: 1.0335
Epoch 187/500
614/614 [=====] - 0s 133us/sample - loss: 1.5946 -
y1_output_loss: 0.3477 - y2_output_loss: 1.2660 -
y1_output_root_mean_squared_error: 0.5779 - y2_output_root_mean_squared_error:
1.1228 - val_loss: 1.4945 - val_y1_output_loss: 0.3345 - val_y2_output_loss:
1.1296 - val_y1_output_root_mean_squared_error: 0.5822 -
val_y2_output_root_mean_squared_error: 1.0750
Epoch 188/500

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614/614 [=====] - 0s 130us/sample - loss: 1.5060 -
y1_output_loss: 0.3147 - y2_output_loss: 1.1819 -
y1_output_root_mean_squared_error: 0.5617 - y2_output_root_mean_squared_error:
1.0911 - val_loss: 1.2695 - val_y1_output_loss: 0.2581 - val_y2_output_loss:
0.9742 - val_y1_output_root_mean_squared_error: 0.5145 -
val_y2_output_root_mean_squared_error: 1.0024
Epoch 189/500
614/614 [=====] - 0s 138us/sample - loss: 1.2003 -
y1_output_loss: 0.2284 - y2_output_loss: 0.9668 -
y1_output_root_mean_squared_error: 0.4795 - y2_output_root_mean_squared_error:
0.9851 - val_loss: 2.0690 - val_y1_output_loss: 0.5552 - val_y2_output_loss:
1.4493 - val_y1_output_root_mean_squared_error: 0.7570 -
val_y2_output_root_mean_squared_error: 1.2231
Epoch 190/500
614/614 [=====] - 0s 123us/sample - loss: 1.8445 -
y1_output_loss: 0.3651 - y2_output_loss: 1.4699 -
y1_output_root_mean_squared_error: 0.6046 - y2_output_root_mean_squared_error:
1.2161 - val_loss: 2.1842 - val_y1_output_loss: 0.3679 - val_y2_output_loss:
1.7608 - val_y1_output_root_mean_squared_error: 0.6161 -
val_y2_output_root_mean_squared_error: 1.3433
Epoch 191/500
614/614 [=====] - 0s 124us/sample - loss: 1.5172 -
y1_output_loss: 0.2952 - y2_output_loss: 1.2340 -
y1_output_root_mean_squared_error: 0.5420 - y2_output_root_mean_squared_error:
1.1061 - val_loss: 2.9027 - val_y1_output_loss: 0.5786 - val_y2_output_loss:
2.2396 - val_y1_output_root_mean_squared_error: 0.7688 -
val_y2_output_root_mean_squared_error: 1.5204
Epoch 192/500
614/614 [=====] - 0s 126us/sample - loss: 1.5406 -
y1_output_loss: 0.3278 - y2_output_loss: 1.2002 -
y1_output_root_mean_squared_error: 0.5740 - y2_output_root_mean_squared_error:
1.1005 - val_loss: 1.1934 - val_y1_output_loss: 0.3192 - val_y2_output_loss:
0.8451 - val_y1_output_root_mean_squared_error: 0.5730 -
val_y2_output_root_mean_squared_error: 0.9301
Epoch 193/500
614/614 [=====] - 0s 128us/sample - loss: 1.4641 -
y1_output_loss: 0.3674 - y2_output_loss: 1.0881 -
y1_output_root_mean_squared_error: 0.6066 - y2_output_root_mean_squared_error:
1.0469 - val_loss: 1.2773 - val_y1_output_loss: 0.2602 - val_y2_output_loss:
0.9989 - val_y1_output_root_mean_squared_error: 0.5167 -
val_y2_output_root_mean_squared_error: 1.0052
Epoch 194/500
614/614 [=====] - 0s 129us/sample - loss: 1.9263 -
y1_output_loss: 0.4014 - y2_output_loss: 1.5105 -
y1_output_root_mean_squared_error: 0.6362 - y2_output_root_mean_squared_error:
1.2335 - val_loss: 1.2770 - val_y1_output_loss: 0.3114 - val_y2_output_loss:
0.9564 - val_y1_output_root_mean_squared_error: 0.5627 -
val_y2_output_root_mean_squared_error: 0.9800

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Epoch 195/500
614/614 [=====] - 0s 127us/sample - loss: 1.5108 -
y1_output_loss: 0.2857 - y2_output_loss: 1.2179 -
y1_output_root_mean_squared_error: 0.5357 - y2_output_root_mean_squared_error:
1.1063 - val_loss: 1.2139 - val_y1_output_loss: 0.2471 - val_y2_output_loss:
0.9441 - val_y1_output_root_mean_squared_error: 0.5040 -
val_y2_output_root_mean_squared_error: 0.9797
Epoch 196/500
614/614 [=====] - 0s 122us/sample - loss: 1.8442 -
y1_output_loss: 0.4650 - y2_output_loss: 1.3670 -
y1_output_root_mean_squared_error: 0.6848 - y2_output_root_mean_squared_error:
1.1727 - val_loss: 1.4814 - val_y1_output_loss: 0.3473 - val_y2_output_loss:
1.1144 - val_y1_output_root_mean_squared_error: 0.5984 -
val_y2_output_root_mean_squared_error: 1.0599
Epoch 197/500
614/614 [=====] - 0s 127us/sample - loss: 2.6307 -
y1_output_loss: 0.6504 - y2_output_loss: 1.9589 -
y1_output_root_mean_squared_error: 0.8088 - y2_output_root_mean_squared_error:
1.4059 - val_loss: 1.0834 - val_y1_output_loss: 0.2657 - val_y2_output_loss:
0.7924 - val_y1_output_root_mean_squared_error: 0.5237 -
val_y2_output_root_mean_squared_error: 0.8996
Epoch 198/500
614/614 [=====] - 0s 133us/sample - loss: 1.6363 -
y1_output_loss: 0.3037 - y2_output_loss: 1.3193 -
y1_output_root_mean_squared_error: 0.5531 - y2_output_root_mean_squared_error:
1.1534 - val_loss: 1.2723 - val_y1_output_loss: 0.2403 - val_y2_output_loss:
0.9941 - val_y1_output_root_mean_squared_error: 0.4961 -
val_y2_output_root_mean_squared_error: 1.0130
Epoch 199/500
614/614 [=====] - 0s 130us/sample - loss: 2.5351 -
y1_output_loss: 0.6328 - y2_output_loss: 1.8801 -
y1_output_root_mean_squared_error: 0.7986 - y2_output_root_mean_squared_error:
1.3774 - val_loss: 1.3961 - val_y1_output_loss: 0.2761 - val_y2_output_loss:
1.0730 - val_y1_output_root_mean_squared_error: 0.5321 -
val_y2_output_root_mean_squared_error: 1.0550
Epoch 200/500
614/614 [=====] - 0s 131us/sample - loss: 1.4555 -
y1_output_loss: 0.3266 - y2_output_loss: 1.1792 -
y1_output_root_mean_squared_error: 0.5685 - y2_output_root_mean_squared_error:
1.0641 - val_loss: 2.9220 - val_y1_output_loss: 0.4477 - val_y2_output_loss:
2.4466 - val_y1_output_root_mean_squared_error: 0.6785 -
val_y2_output_root_mean_squared_error: 1.5689
Epoch 201/500
614/614 [=====] - 0s 129us/sample - loss: 1.9759 -
y1_output_loss: 0.4192 - y2_output_loss: 1.5981 -
y1_output_root_mean_squared_error: 0.6500 - y2_output_root_mean_squared_error:
1.2463 - val_loss: 6.7327 - val_y1_output_loss: 0.4855 - val_y2_output_loss:
6.1263 - val_y1_output_root_mean_squared_error: 0.7046 -

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val_y2_output_root_mean_squared_error: 2.4973
Epoch 202/500
614/614 [=====] - 0s 130us/sample - loss: 1.6460 -
y1_output_loss: 0.3792 - y2_output_loss: 1.2615 -
y1_output_root_mean_squared_error: 0.6137 - y2_output_root_mean_squared_error:
1.1267 - val_loss: 3.4787 - val_y1_output_loss: 1.3269 - val_y2_output_loss:
2.0392 - val_y1_output_root_mean_squared_error: 1.1729 -
val_y2_output_root_mean_squared_error: 1.4501
Epoch 203/500
614/614 [=====] - 0s 132us/sample - loss: 1.6684 -
y1_output_loss: 0.3959 - y2_output_loss: 1.2680 -
y1_output_root_mean_squared_error: 0.6272 - y2_output_root_mean_squared_error:
1.1292 - val_loss: 2.1369 - val_y1_output_loss: 0.7446 - val_y2_output_loss:
1.3756 - val_y1_output_root_mean_squared_error: 0.8738 -
val_y2_output_root_mean_squared_error: 1.1719
Epoch 204/500
614/614 [=====] - 0s 129us/sample - loss: 3.5407 -
y1_output_loss: 0.8247 - y2_output_loss: 2.6846 -
y1_output_root_mean_squared_error: 0.9120 - y2_output_root_mean_squared_error:
1.6459 - val_loss: 1.3539 - val_y1_output_loss: 0.2959 - val_y2_output_loss:
1.0294 - val_y1_output_root_mean_squared_error: 0.5500 -
val_y2_output_root_mean_squared_error: 1.0254
Epoch 205/500
614/614 [=====] - 0s 130us/sample - loss: 1.3248 -
y1_output_loss: 0.2616 - y2_output_loss: 1.1322 -
y1_output_root_mean_squared_error: 0.5116 - y2_output_root_mean_squared_error:
1.0310 - val_loss: 6.3489 - val_y1_output_loss: 0.9248 - val_y2_output_loss:
5.3052 - val_y1_output_root_mean_squared_error: 0.9774 -
val_y2_output_root_mean_squared_error: 2.3224
Epoch 206/500
614/614 [=====] - 0s 130us/sample - loss: 1.5562 -
y1_output_loss: 0.3337 - y2_output_loss: 1.2192 -
y1_output_root_mean_squared_error: 0.5781 - y2_output_root_mean_squared_error:
1.1054 - val_loss: 2.4919 - val_y1_output_loss: 0.3682 - val_y2_output_loss:
2.1005 - val_y1_output_root_mean_squared_error: 0.6157 -
val_y2_output_root_mean_squared_error: 1.4535
Epoch 207/500
614/614 [=====] - 0s 132us/sample - loss: 2.2651 -
y1_output_loss: 0.5718 - y2_output_loss: 1.6747 -
y1_output_root_mean_squared_error: 0.7588 - y2_output_root_mean_squared_error:
1.2997 - val_loss: 1.0694 - val_y1_output_loss: 0.2778 - val_y2_output_loss:
0.7846 - val_y1_output_root_mean_squared_error: 0.5353 -
val_y2_output_root_mean_squared_error: 0.8848
Epoch 208/500
614/614 [=====] - 0s 134us/sample - loss: 1.4272 -
y1_output_loss: 0.2850 - y2_output_loss: 1.1322 -
y1_output_root_mean_squared_error: 0.5358 - y2_output_root_mean_squared_error:
1.0678 - val_loss: 0.9944 - val_y1_output_loss: 0.2384 - val_y2_output_loss:

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0.7390 - val_y1_output_root_mean_squared_error: 0.4960 -
val_y2_output_root_mean_squared_error: 0.8651
Epoch 209/500
614/614 [=====] - 0s 141us/sample - loss: 1.2704 -
y1_output_loss: 0.2543 - y2_output_loss: 1.0142 -
y1_output_root_mean_squared_error: 0.5055 - y2_output_root_mean_squared_error:
1.0074 - val_loss: 1.0946 - val_y1_output_loss: 0.2240 - val_y2_output_loss:
0.8560 - val_y1_output_root_mean_squared_error: 0.4813 -
val_y2_output_root_mean_squared_error: 0.9290
Epoch 210/500
614/614 [=====] - 0s 133us/sample - loss: 1.3862 -
y1_output_loss: 0.2881 - y2_output_loss: 1.1012 -
y1_output_root_mean_squared_error: 0.5380 - y2_output_root_mean_squared_error:
1.0473 - val_loss: 1.5589 - val_y1_output_loss: 0.2877 - val_y2_output_loss:
1.2298 - val_y1_output_root_mean_squared_error: 0.5438 -
val_y2_output_root_mean_squared_error: 1.1239
Epoch 211/500
614/614 [=====] - 0s 123us/sample - loss: 1.8740 -
y1_output_loss: 0.4174 - y2_output_loss: 1.4469 -
y1_output_root_mean_squared_error: 0.6459 - y2_output_root_mean_squared_error:
1.2070 - val_loss: 1.9156 - val_y1_output_loss: 0.5854 - val_y2_output_loss:
1.2888 - val_y1_output_root_mean_squared_error: 0.7777 -
val_y2_output_root_mean_squared_error: 1.1449
Epoch 212/500
614/614 [=====] - 0s 124us/sample - loss: 1.8007 -
y1_output_loss: 0.3763 - y2_output_loss: 1.4162 -
y1_output_root_mean_squared_error: 0.6152 - y2_output_root_mean_squared_error:
1.1926 - val_loss: 3.6325 - val_y1_output_loss: 1.1858 - val_y2_output_loss:
2.3504 - val_y1_output_root_mean_squared_error: 1.1079 -
val_y2_output_root_mean_squared_error: 1.5508
Epoch 213/500
614/614 [=====] - 0s 127us/sample - loss: 1.5067 -
y1_output_loss: 0.3064 - y2_output_loss: 1.1949 -
y1_output_root_mean_squared_error: 0.5559 - y2_output_root_mean_squared_error:
1.0944 - val_loss: 1.5814 - val_y1_output_loss: 0.2529 - val_y2_output_loss:
1.2819 - val_y1_output_root_mean_squared_error: 0.5109 -
val_y2_output_root_mean_squared_error: 1.1491
Epoch 214/500
614/614 [=====] - 0s 131us/sample - loss: 1.2609 -
y1_output_loss: 0.2627 - y2_output_loss: 0.9931 -
y1_output_root_mean_squared_error: 0.5134 - y2_output_root_mean_squared_error:
0.9986 - val_loss: 1.5220 - val_y1_output_loss: 0.2364 - val_y2_output_loss:
1.2352 - val_y1_output_root_mean_squared_error: 0.4934 -
val_y2_output_root_mean_squared_error: 1.1307
Epoch 215/500
614/614 [=====] - 0s 127us/sample - loss: 1.2762 -
y1_output_loss: 0.2440 - y2_output_loss: 1.0300 -
y1_output_root_mean_squared_error: 0.4912 - y2_output_root_mean_squared_error:

1.0173 - val_loss: 2.1286 - val_y1_output_loss: 0.2610 - val_y2_output_loss:
 1.8366 - val_y1_output_root_mean_squared_error: 0.5186 -
 val_y2_output_root_mean_squared_error: 1.3637
 Epoch 216/500
 614/614 [=====] - 0s 126us/sample - loss: 1.3537 -
 y1_output_loss: 0.2740 - y2_output_loss: 1.0763 -
 y1_output_root_mean_squared_error: 0.5226 - y2_output_root_mean_squared_error:
 1.0395 - val_loss: 1.0145 - val_y1_output_loss: 0.2076 - val_y2_output_loss:
 0.7827 - val_y1_output_root_mean_squared_error: 0.4620 -
 val_y2_output_root_mean_squared_error: 0.8950
 Epoch 217/500
 614/614 [=====] - 0s 128us/sample - loss: 1.2315 -
 y1_output_loss: 0.2727 - y2_output_loss: 0.9522 -
 y1_output_root_mean_squared_error: 0.5228 - y2_output_root_mean_squared_error:
 0.9789 - val_loss: 1.1320 - val_y1_output_loss: 0.2286 - val_y2_output_loss:
 0.8718 - val_y1_output_root_mean_squared_error: 0.4854 -
 val_y2_output_root_mean_squared_error: 0.9467
 Epoch 218/500
 614/614 [=====] - 0s 129us/sample - loss: 1.3140 -
 y1_output_loss: 0.2548 - y2_output_loss: 1.2253 -
 y1_output_root_mean_squared_error: 0.4813 - y2_output_root_mean_squared_error:
 1.0404 - val_loss: 14.2559 - val_y1_output_loss: 1.6437 - val_y2_output_loss:
 12.6359 - val_y1_output_root_mean_squared_error: 1.2933 -
 val_y2_output_root_mean_squared_error: 3.5473
 Epoch 219/500
 614/614 [=====] - 0s 122us/sample - loss: 1.8832 -
 y1_output_loss: 0.3215 - y2_output_loss: 1.5483 -
 y1_output_root_mean_squared_error: 0.5678 - y2_output_root_mean_squared_error:
 1.2493 - val_loss: 1.0818 - val_y1_output_loss: 0.2513 - val_y2_output_loss:
 0.8057 - val_y1_output_root_mean_squared_error: 0.5092 -
 val_y2_output_root_mean_squared_error: 0.9069
 Epoch 220/500
 614/614 [=====] - 0s 133us/sample - loss: 1.4684 -
 y1_output_loss: 0.2741 - y2_output_loss: 1.1939 -
 y1_output_root_mean_squared_error: 0.5253 - y2_output_root_mean_squared_error:
 1.0920 - val_loss: 1.5504 - val_y1_output_loss: 0.2160 - val_y2_output_loss:
 1.2822 - val_y1_output_root_mean_squared_error: 0.4710 -
 val_y2_output_root_mean_squared_error: 1.1527
 Epoch 221/500
 614/614 [=====] - 0s 122us/sample - loss: 1.2957 -
 y1_output_loss: 0.3043 - y2_output_loss: 0.9899 -
 y1_output_root_mean_squared_error: 0.5531 - y2_output_root_mean_squared_error:
 0.9949 - val_loss: 1.8999 - val_y1_output_loss: 0.2205 - val_y2_output_loss:
 1.6641 - val_y1_output_root_mean_squared_error: 0.4759 -
 val_y2_output_root_mean_squared_error: 1.2936
 Epoch 222/500
 614/614 [=====] - 0s 126us/sample - loss: 1.4833 -
 y1_output_loss: 0.3225 - y2_output_loss: 1.1682 -

y1_output_root_mean_squared_error: 0.5673 - y2_output_root_mean_squared_error:
 1.0777 - val_loss: 3.1861 - val_y1_output_loss: 0.5325 - val_y2_output_loss:
 2.6132 - val_y1_output_root_mean_squared_error: 0.7422 -
 val_y2_output_root_mean_squared_error: 1.6233
 Epoch 223/500
 614/614 [=====] - 0s 129us/sample - loss: 1.4931 -
 y1_output_loss: 0.2665 - y2_output_loss: 1.2213 -
 y1_output_root_mean_squared_error: 0.5173 - y2_output_root_mean_squared_error:
 1.1070 - val_loss: 2.5061 - val_y1_output_loss: 0.4671 - val_y2_output_loss:
 1.9552 - val_y1_output_root_mean_squared_error: 0.6929 -
 val_y2_output_root_mean_squared_error: 1.4234
 Epoch 224/500
 614/614 [=====] - 0s 125us/sample - loss: 1.3231 -
 y1_output_loss: 0.2924 - y2_output_loss: 1.0233 -
 y1_output_root_mean_squared_error: 0.5428 - y2_output_root_mean_squared_error:
 1.0142 - val_loss: 1.3658 - val_y1_output_loss: 0.2202 - val_y2_output_loss:
 1.1224 - val_y1_output_root_mean_squared_error: 0.4771 -
 val_y2_output_root_mean_squared_error: 1.0669
 Epoch 225/500
 614/614 [=====] - 0s 128us/sample - loss: 1.5056 -
 y1_output_loss: 0.3453 - y2_output_loss: 1.1494 -
 y1_output_root_mean_squared_error: 0.5887 - y2_output_root_mean_squared_error:
 1.0766 - val_loss: 2.1646 - val_y1_output_loss: 0.2595 - val_y2_output_loss:
 1.9202 - val_y1_output_root_mean_squared_error: 0.5178 -
 val_y2_output_root_mean_squared_error: 1.3771
 Epoch 226/500
 614/614 [=====] - 0s 130us/sample - loss: 1.6309 -
 y1_output_loss: 0.3066 - y2_output_loss: 1.3201 -
 y1_output_root_mean_squared_error: 0.5560 - y2_output_root_mean_squared_error:
 1.1497 - val_loss: 1.7522 - val_y1_output_loss: 0.1986 - val_y2_output_loss:
 1.4983 - val_y1_output_root_mean_squared_error: 0.4527 -
 val_y2_output_root_mean_squared_error: 1.2439
 Epoch 227/500
 614/614 [=====] - 0s 127us/sample - loss: 1.2352 -
 y1_output_loss: 0.2592 - y2_output_loss: 0.9702 -
 y1_output_root_mean_squared_error: 0.5085 - y2_output_root_mean_squared_error:
 0.9883 - val_loss: 1.2144 - val_y1_output_loss: 0.3534 - val_y2_output_loss:
 0.8371 - val_y1_output_root_mean_squared_error: 0.6023 -
 val_y2_output_root_mean_squared_error: 0.9229
 Epoch 228/500
 614/614 [=====] - 0s 128us/sample - loss: 1.0688 -
 y1_output_loss: 0.2121 - y2_output_loss: 0.8513 -
 y1_output_root_mean_squared_error: 0.4602 - y2_output_root_mean_squared_error:
 0.9257 - val_loss: 1.2232 - val_y1_output_loss: 0.3500 - val_y2_output_loss:
 0.8388 - val_y1_output_root_mean_squared_error: 0.6025 -
 val_y2_output_root_mean_squared_error: 0.9275
 Epoch 229/500
 614/614 [=====] - 0s 126us/sample - loss: 2.1641 -

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y1_output_loss: 0.4356 - y2_output_loss: 1.7184 -
y1_output_root_mean_squared_error: 0.6620 - y2_output_root_mean_squared_error:
1.3137 - val_loss: 1.2789 - val_y1_output_loss: 0.3320 - val_y2_output_loss:
0.9169 - val_y1_output_root_mean_squared_error: 0.5811 -
val_y2_output_root_mean_squared_error: 0.9701
Epoch 230/500
614/614 [=====] - 0s 127us/sample - loss: 1.3461 -
y1_output_loss: 0.2710 - y2_output_loss: 1.0649 -
y1_output_root_mean_squared_error: 0.5207 - y2_output_root_mean_squared_error:
1.0368 - val_loss: 1.3436 - val_y1_output_loss: 0.4440 - val_y2_output_loss:
0.8657 - val_y1_output_root_mean_squared_error: 0.6768 -
val_y2_output_root_mean_squared_error: 0.9410
Epoch 231/500
614/614 [=====] - 0s 127us/sample - loss: 1.6079 -
y1_output_loss: 0.3736 - y2_output_loss: 1.2376 -
y1_output_root_mean_squared_error: 0.6136 - y2_output_root_mean_squared_error:
1.1097 - val_loss: 2.5641 - val_y1_output_loss: 0.4034 - val_y2_output_loss:
2.1070 - val_y1_output_root_mean_squared_error: 0.6431 -
val_y2_output_root_mean_squared_error: 1.4665
Epoch 232/500
614/614 [=====] - 0s 127us/sample - loss: 1.1654 -
y1_output_loss: 0.2478 - y2_output_loss: 0.9164 -
y1_output_root_mean_squared_error: 0.4970 - y2_output_root_mean_squared_error:
0.9583 - val_loss: 1.2304 - val_y1_output_loss: 0.2715 - val_y2_output_loss:
0.9695 - val_y1_output_root_mean_squared_error: 0.5290 -
val_y2_output_root_mean_squared_error: 0.9749
Epoch 233/500
614/614 [=====] - 0s 132us/sample - loss: 2.1101 -
y1_output_loss: 0.4364 - y2_output_loss: 1.6571 -
y1_output_root_mean_squared_error: 0.6631 - y2_output_root_mean_squared_error:
1.2925 - val_loss: 1.1422 - val_y1_output_loss: 0.2359 - val_y2_output_loss:
0.8812 - val_y1_output_root_mean_squared_error: 0.4925 -
val_y2_output_root_mean_squared_error: 0.9485
Epoch 234/500
614/614 [=====] - 0s 139us/sample - loss: 1.4353 -
y1_output_loss: 0.2613 - y2_output_loss: 1.1736 -
y1_output_root_mean_squared_error: 0.5102 - y2_output_root_mean_squared_error:
1.0840 - val_loss: 2.3137 - val_y1_output_loss: 0.6064 - val_y2_output_loss:
1.6671 - val_y1_output_root_mean_squared_error: 0.7929 -
val_y2_output_root_mean_squared_error: 1.2981
Epoch 235/500
614/614 [=====] - 0s 130us/sample - loss: 1.5836 -
y1_output_loss: 0.3303 - y2_output_loss: 1.2609 -
y1_output_root_mean_squared_error: 0.5729 - y2_output_root_mean_squared_error:
1.1204 - val_loss: 2.4382 - val_y1_output_loss: 0.6864 - val_y2_output_loss:
1.7357 - val_y1_output_root_mean_squared_error: 0.8388 -
val_y2_output_root_mean_squared_error: 1.3171
Epoch 236/500

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614/614 [=====] - 0s 131us/sample - loss: 1.2973 -
y1_output_loss: 0.2866 - y2_output_loss: 1.0101 -
y1_output_root_mean_squared_error: 0.5364 - y2_output_root_mean_squared_error:
1.0048 - val_loss: 2.8230 - val_y1_output_loss: 0.2694 - val_y2_output_loss:
2.4584 - val_y1_output_root_mean_squared_error: 0.5224 -
val_y2_output_root_mean_squared_error: 1.5969
Epoch 237/500
614/614 [=====] - 0s 128us/sample - loss: 2.0653 -
y1_output_loss: 0.4579 - y2_output_loss: 1.5913 -
y1_output_root_mean_squared_error: 0.6798 - y2_output_root_mean_squared_error:
1.2661 - val_loss: 1.5794 - val_y1_output_loss: 0.2139 - val_y2_output_loss:
1.3149 - val_y1_output_root_mean_squared_error: 0.4682 -
val_y2_output_root_mean_squared_error: 1.1663
Epoch 238/500
614/614 [=====] - 0s 129us/sample - loss: 1.0573 -
y1_output_loss: 0.2305 - y2_output_loss: 0.8301 -
y1_output_root_mean_squared_error: 0.4817 - y2_output_root_mean_squared_error:
0.9084 - val_loss: 2.5910 - val_y1_output_loss: 0.3377 - val_y2_output_loss:
2.1777 - val_y1_output_root_mean_squared_error: 0.5875 -
val_y2_output_root_mean_squared_error: 1.4986
Epoch 239/500
614/614 [=====] - 0s 132us/sample - loss: 1.2167 -
y1_output_loss: 0.2294 - y2_output_loss: 0.9801 -
y1_output_root_mean_squared_error: 0.4773 - y2_output_root_mean_squared_error:
0.9944 - val_loss: 1.0235 - val_y1_output_loss: 0.2491 - val_y2_output_loss:
0.7450 - val_y1_output_root_mean_squared_error: 0.5066 -
val_y2_output_root_mean_squared_error: 0.8757
Epoch 240/500
614/614 [=====] - 0s 121us/sample - loss: 1.4668 -
y1_output_loss: 0.3270 - y2_output_loss: 1.1269 -
y1_output_root_mean_squared_error: 0.5739 - y2_output_root_mean_squared_error:
1.0665 - val_loss: 1.9348 - val_y1_output_loss: 0.5485 - val_y2_output_loss:
1.3277 - val_y1_output_root_mean_squared_error: 0.7542 -
val_y2_output_root_mean_squared_error: 1.1688
Epoch 241/500
614/614 [=====] - 0s 131us/sample - loss: 2.5528 -
y1_output_loss: 0.6638 - y2_output_loss: 1.9427 -
y1_output_root_mean_squared_error: 0.8168 - y2_output_root_mean_squared_error:
1.3732 - val_loss: 8.1310 - val_y1_output_loss: 0.7737 - val_y2_output_loss:
7.1431 - val_y1_output_root_mean_squared_error: 0.8892 -
val_y2_output_root_mean_squared_error: 2.7093
Epoch 242/500
614/614 [=====] - 0s 134us/sample - loss: 1.5290 -
y1_output_loss: 0.3181 - y2_output_loss: 1.2013 -
y1_output_root_mean_squared_error: 0.5654 - y2_output_root_mean_squared_error:
1.0997 - val_loss: 1.2012 - val_y1_output_loss: 0.2760 - val_y2_output_loss:
0.8943 - val_y1_output_root_mean_squared_error: 0.5332 -
val_y2_output_root_mean_squared_error: 0.9576

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Epoch 243/500
614/614 [=====] - 0s 129us/sample - loss: 1.2148 -
y1_output_loss: 0.2558 - y2_output_loss: 0.9861 -
y1_output_root_mean_squared_error: 0.5034 - y2_output_root_mean_squared_error:
0.9805 - val_loss: 1.1209 - val_y1_output_loss: 0.2265 - val_y2_output_loss:
0.8819 - val_y1_output_root_mean_squared_error: 0.4842 -
val_y2_output_root_mean_squared_error: 0.9415
Epoch 244/500
614/614 [=====] - 0s 128us/sample - loss: 0.9831 -
y1_output_loss: 0.2456 - y2_output_loss: 0.7337 -
y1_output_root_mean_squared_error: 0.4955 - y2_output_root_mean_squared_error:
0.8588 - val_loss: 1.6300 - val_y1_output_loss: 0.3420 - val_y2_output_loss:
1.2378 - val_y1_output_root_mean_squared_error: 0.5912 -
val_y2_output_root_mean_squared_error: 1.1316
Epoch 245/500
614/614 [=====] - 0s 126us/sample - loss: 1.2690 -
y1_output_loss: 0.2418 - y2_output_loss: 1.0159 -
y1_output_root_mean_squared_error: 0.4940 - y2_output_root_mean_squared_error:
1.0124 - val_loss: 1.1221 - val_y1_output_loss: 0.3299 - val_y2_output_loss:
0.7686 - val_y1_output_root_mean_squared_error: 0.5832 -
val_y2_output_root_mean_squared_error: 0.8843
Epoch 246/500
614/614 [=====] - 0s 122us/sample - loss: 1.5385 -
y1_output_loss: 0.3538 - y2_output_loss: 1.1849 -
y1_output_root_mean_squared_error: 0.5967 - y2_output_root_mean_squared_error:
1.0874 - val_loss: 3.4628 - val_y1_output_loss: 0.5098 - val_y2_output_loss:
2.9039 - val_y1_output_root_mean_squared_error: 0.7257 -
val_y2_output_root_mean_squared_error: 1.7135
Epoch 247/500
614/614 [=====] - 0s 130us/sample - loss: 1.6220 -
y1_output_loss: 0.2807 - y2_output_loss: 1.3417 -
y1_output_root_mean_squared_error: 0.5319 - y2_output_root_mean_squared_error:
1.1572 - val_loss: 1.7285 - val_y1_output_loss: 0.2305 - val_y2_output_loss:
1.4561 - val_y1_output_root_mean_squared_error: 0.4813 -
val_y2_output_root_mean_squared_error: 1.2235
Epoch 248/500
614/614 [=====] - 0s 128us/sample - loss: 1.7135 -
y1_output_loss: 0.3918 - y2_output_loss: 1.3080 -
y1_output_root_mean_squared_error: 0.6279 - y2_output_root_mean_squared_error:
1.1486 - val_loss: 1.2952 - val_y1_output_loss: 0.2815 - val_y2_output_loss:
0.9844 - val_y1_output_root_mean_squared_error: 0.5349 -
val_y2_output_root_mean_squared_error: 1.0046
Epoch 249/500
614/614 [=====] - 0s 132us/sample - loss: 1.6864 -
y1_output_loss: 0.3864 - y2_output_loss: 1.2871 -
y1_output_root_mean_squared_error: 0.6242 - y2_output_root_mean_squared_error:
1.1388 - val_loss: 1.0364 - val_y1_output_loss: 0.2295 - val_y2_output_loss:
0.7871 - val_y1_output_root_mean_squared_error: 0.4871 -


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val_y2_output_root_mean_squared_error: 0.8940
Epoch 250/500
614/614 [=====] - 0s 124us/sample - loss: 1.0640 -
y1_output_loss: 0.2341 - y2_output_loss: 0.8244 -
y1_output_root_mean_squared_error: 0.4845 - y2_output_root_mean_squared_error:
0.9106 - val_loss: 0.9595 - val_y1_output_loss: 0.2014 - val_y2_output_loss:
0.7428 - val_y1_output_root_mean_squared_error: 0.4541 -
val_y2_output_root_mean_squared_error: 0.8679
Epoch 251/500
614/614 [=====] - 0s 124us/sample - loss: 1.2032 -
y1_output_loss: 0.2613 - y2_output_loss: 0.9392 -
y1_output_root_mean_squared_error: 0.5082 - y2_output_root_mean_squared_error:
0.9721 - val_loss: 1.4548 - val_y1_output_loss: 0.2510 - val_y2_output_loss:
1.1608 - val_y1_output_root_mean_squared_error: 0.5068 -
val_y2_output_root_mean_squared_error: 1.0945
Epoch 252/500
614/614 [=====] - 0s 130us/sample - loss: 1.0616 -
y1_output_loss: 0.2326 - y2_output_loss: 0.8220 -
y1_output_root_mean_squared_error: 0.4830 - y2_output_root_mean_squared_error:
0.9101 - val_loss: 1.0643 - val_y1_output_loss: 0.2345 - val_y2_output_loss:
0.7985 - val_y1_output_root_mean_squared_error: 0.4880 -
val_y2_output_root_mean_squared_error: 0.9089
Epoch 253/500
614/614 [=====] - 0s 131us/sample - loss: 1.3463 -
y1_output_loss: 0.2246 - y2_output_loss: 1.1825 -
y1_output_root_mean_squared_error: 0.4686 - y2_output_root_mean_squared_error:
1.0614 - val_loss: 3.4393 - val_y1_output_loss: 0.6792 - val_y2_output_loss:
2.7318 - val_y1_output_root_mean_squared_error: 0.8376 -
val_y2_output_root_mean_squared_error: 1.6546
Epoch 254/500
614/614 [=====] - 0s 134us/sample - loss: 1.4413 -
y1_output_loss: 0.3368 - y2_output_loss: 1.0966 -
y1_output_root_mean_squared_error: 0.5826 - y2_output_root_mean_squared_error:
1.0497 - val_loss: 1.0580 - val_y1_output_loss: 0.2278 - val_y2_output_loss:
0.8270 - val_y1_output_root_mean_squared_error: 0.4836 -
val_y2_output_root_mean_squared_error: 0.9078
Epoch 255/500
614/614 [=====] - 0s 124us/sample - loss: 1.5808 -
y1_output_loss: 0.3792 - y2_output_loss: 1.1896 -
y1_output_root_mean_squared_error: 0.6181 - y2_output_root_mean_squared_error:
1.0948 - val_loss: 0.9215 - val_y1_output_loss: 0.2175 - val_y2_output_loss:
0.6842 - val_y1_output_root_mean_squared_error: 0.4732 -
val_y2_output_root_mean_squared_error: 0.8352
Epoch 256/500
614/614 [=====] - 0s 127us/sample - loss: 1.2682 -
y1_output_loss: 0.2558 - y2_output_loss: 1.0038 -
y1_output_root_mean_squared_error: 0.5069 - y2_output_root_mean_squared_error:
1.0056 - val_loss: 1.0379 - val_y1_output_loss: 0.1989 - val_y2_output_loss:

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0.8121 - val_y1_output_root_mean_squared_error: 0.4501 -
 val_y2_output_root_mean_squared_error: 0.9139
 Epoch 257/500
 614/614 [=====] - 0s 132us/sample - loss: 1.2295 -
 y1_output_loss: 0.2739 - y2_output_loss: 0.9453 -
 y1_output_root_mean_squared_error: 0.5249 - y2_output_root_mean_squared_error:
 0.9767 - val_loss: 1.1155 - val_y1_output_loss: 0.2003 - val_y2_output_loss:
 0.8996 - val_y1_output_root_mean_squared_error: 0.4532 -
 val_y2_output_root_mean_squared_error: 0.9540
 Epoch 258/500
 614/614 [=====] - 0s 133us/sample - loss: 1.3143 -
 y1_output_loss: 0.2640 - y2_output_loss: 1.0437 -
 y1_output_root_mean_squared_error: 0.5118 - y2_output_root_mean_squared_error:
 1.0259 - val_loss: 1.0638 - val_y1_output_loss: 0.2683 - val_y2_output_loss:
 0.7750 - val_y1_output_root_mean_squared_error: 0.5261 -
 val_y2_output_root_mean_squared_error: 0.8872
 Epoch 259/500
 614/614 [=====] - 0s 129us/sample - loss: 1.0180 -
 y1_output_loss: 0.2095 - y2_output_loss: 0.8020 -
 y1_output_root_mean_squared_error: 0.4594 - y2_output_root_mean_squared_error:
 0.8983 - val_loss: 1.0908 - val_y1_output_loss: 0.2357 - val_y2_output_loss:
 0.8413 - val_y1_output_root_mean_squared_error: 0.4928 -
 val_y2_output_root_mean_squared_error: 0.9209
 Epoch 260/500
 614/614 [=====] - 0s 125us/sample - loss: 1.0653 -
 y1_output_loss: 0.2398 - y2_output_loss: 0.8291 -
 y1_output_root_mean_squared_error: 0.4822 - y2_output_root_mean_squared_error:
 0.9125 - val_loss: 2.4499 - val_y1_output_loss: 0.8092 - val_y2_output_loss:
 1.5906 - val_y1_output_root_mean_squared_error: 0.9161 -
 val_y2_output_root_mean_squared_error: 1.2691
 Epoch 261/500
 614/614 [=====] - 0s 127us/sample - loss: 1.2870 -
 y1_output_loss: 0.2780 - y2_output_loss: 1.0153 -
 y1_output_root_mean_squared_error: 0.5289 - y2_output_root_mean_squared_error:
 1.0036 - val_loss: 1.9793 - val_y1_output_loss: 0.2760 - val_y2_output_loss:
 1.6367 - val_y1_output_root_mean_squared_error: 0.5312 -
 val_y2_output_root_mean_squared_error: 1.3027
 Epoch 262/500
 614/614 [=====] - 0s 138us/sample - loss: 2.0596 -
 y1_output_loss: 0.5405 - y2_output_loss: 1.5041 -
 y1_output_root_mean_squared_error: 0.7384 - y2_output_root_mean_squared_error:
 1.2306 - val_loss: 1.2527 - val_y1_output_loss: 0.3436 - val_y2_output_loss:
 0.8808 - val_y1_output_root_mean_squared_error: 0.5927 -
 val_y2_output_root_mean_squared_error: 0.9495
 Epoch 263/500
 614/614 [=====] - 0s 136us/sample - loss: 0.9435 -
 y1_output_loss: 0.2255 - y2_output_loss: 0.7184 -
 y1_output_root_mean_squared_error: 0.4726 - y2_output_root_mean_squared_error:

0.8486 - val_loss: 1.6472 - val_y1_output_loss: 0.4160 - val_y2_output_loss:
 1.1825 - val_y1_output_root_mean_squared_error: 0.6543 -
 val_y2_output_root_mean_squared_error: 1.1041
 Epoch 264/500
 614/614 [=====] - 0s 130us/sample - loss: 1.1658 -
 y1_output_loss: 0.2812 - y2_output_loss: 0.8814 -
 y1_output_root_mean_squared_error: 0.5254 - y2_output_root_mean_squared_error:
 0.9433 - val_loss: 1.0605 - val_y1_output_loss: 0.2198 - val_y2_output_loss:
 0.8523 - val_y1_output_root_mean_squared_error: 0.4753 -
 val_y2_output_root_mean_squared_error: 0.9135
 Epoch 265/500
 614/614 [=====] - 0s 127us/sample - loss: 1.2410 -
 y1_output_loss: 0.2570 - y2_output_loss: 0.9744 -
 y1_output_root_mean_squared_error: 0.5085 - y2_output_root_mean_squared_error:
 0.9911 - val_loss: 1.0585 - val_y1_output_loss: 0.2030 - val_y2_output_loss:
 0.8252 - val_y1_output_root_mean_squared_error: 0.4580 -
 val_y2_output_root_mean_squared_error: 0.9213
 Epoch 266/500
 614/614 [=====] - 0s 129us/sample - loss: 1.1468 -
 y1_output_loss: 0.2582 - y2_output_loss: 0.8793 -
 y1_output_root_mean_squared_error: 0.5104 - y2_output_root_mean_squared_error:
 0.9415 - val_loss: 1.1953 - val_y1_output_loss: 0.3007 - val_y2_output_loss:
 0.8705 - val_y1_output_root_mean_squared_error: 0.5513 -
 val_y2_output_root_mean_squared_error: 0.9441
 Epoch 267/500
 614/614 [=====] - 0s 131us/sample - loss: 1.0166 -
 y1_output_loss: 0.1935 - y2_output_loss: 0.8177 -
 y1_output_root_mean_squared_error: 0.4411 - y2_output_root_mean_squared_error:
 0.9067 - val_loss: 1.4914 - val_y1_output_loss: 0.1868 - val_y2_output_loss:
 1.2562 - val_y1_output_root_mean_squared_error: 0.4379 -
 val_y2_output_root_mean_squared_error: 1.1400
 Epoch 268/500
 614/614 [=====] - 0s 132us/sample - loss: 0.8499 -
 y1_output_loss: 0.1745 - y2_output_loss: 0.6750 -
 y1_output_root_mean_squared_error: 0.4170 - y2_output_root_mean_squared_error:
 0.8222 - val_loss: 2.5122 - val_y1_output_loss: 0.4176 - val_y2_output_loss:
 2.0601 - val_y1_output_root_mean_squared_error: 0.6581 -
 val_y2_output_root_mean_squared_error: 1.4419
 Epoch 269/500
 614/614 [=====] - 0s 128us/sample - loss: 1.0427 -
 y1_output_loss: 0.2128 - y2_output_loss: 0.8215 -
 y1_output_root_mean_squared_error: 0.4635 - y2_output_root_mean_squared_error:
 0.9099 - val_loss: 1.0656 - val_y1_output_loss: 0.2126 - val_y2_output_loss:
 0.8429 - val_y1_output_root_mean_squared_error: 0.4662 -
 val_y2_output_root_mean_squared_error: 0.9210
 Epoch 270/500
 614/614 [=====] - 0s 125us/sample - loss: 0.8429 -
 y1_output_loss: 0.1934 - y2_output_loss: 0.6440 -

y1_output_root_mean_squared_error: 0.4414 - y2_output_root_mean_squared_error:
 0.8050 - val_loss: 1.3294 - val_y1_output_loss: 0.2620 - val_y2_output_loss:
 1.0265 - val_y1_output_root_mean_squared_error: 0.5171 -
 val_y2_output_root_mean_squared_error: 1.0305
 Epoch 271/500
 614/614 [=====] - 0s 122us/sample - loss: 1.1715 -
 y1_output_loss: 0.2629 - y2_output_loss: 0.9467 -
 y1_output_root_mean_squared_error: 0.5025 - y2_output_root_mean_squared_error:
 0.9586 - val_loss: 2.4688 - val_y1_output_loss: 0.4544 - val_y2_output_loss:
 2.0113 - val_y1_output_root_mean_squared_error: 0.6859 -
 val_y2_output_root_mean_squared_error: 1.4136
 Epoch 272/500
 614/614 [=====] - 0s 129us/sample - loss: 1.1313 -
 y1_output_loss: 0.2586 - y2_output_loss: 0.8646 -
 y1_output_root_mean_squared_error: 0.5088 - y2_output_root_mean_squared_error:
 0.9341 - val_loss: 1.0858 - val_y1_output_loss: 0.3127 - val_y2_output_loss:
 0.7702 - val_y1_output_root_mean_squared_error: 0.5652 -
 val_y2_output_root_mean_squared_error: 0.8754
 Epoch 273/500
 614/614 [=====] - 0s 120us/sample - loss: 1.1152 -
 y1_output_loss: 0.2476 - y2_output_loss: 0.8582 -
 y1_output_root_mean_squared_error: 0.4996 - y2_output_root_mean_squared_error:
 0.9304 - val_loss: 0.9474 - val_y1_output_loss: 0.1790 - val_y2_output_loss:
 0.7482 - val_y1_output_root_mean_squared_error: 0.4283 -
 val_y2_output_root_mean_squared_error: 0.8740
 Epoch 274/500
 614/614 [=====] - 0s 132us/sample - loss: 0.8033 -
 y1_output_loss: 0.1802 - y2_output_loss: 0.6327 -
 y1_output_root_mean_squared_error: 0.4172 - y2_output_root_mean_squared_error:
 0.7933 - val_loss: 3.7675 - val_y1_output_loss: 1.0833 - val_y2_output_loss:
 2.5562 - val_y1_output_root_mean_squared_error: 1.0571 -
 val_y2_output_root_mean_squared_error: 1.6279
 Epoch 275/500
 614/614 [=====] - 0s 123us/sample - loss: 1.5270 -
 y1_output_loss: 0.2752 - y2_output_loss: 1.2419 -
 y1_output_root_mean_squared_error: 0.5265 - y2_output_root_mean_squared_error:
 1.1180 - val_loss: 0.9289 - val_y1_output_loss: 0.2513 - val_y2_output_loss:
 0.6792 - val_y1_output_root_mean_squared_error: 0.5092 -
 val_y2_output_root_mean_squared_error: 0.8183
 Epoch 276/500
 614/614 [=====] - 0s 126us/sample - loss: 1.0746 -
 y1_output_loss: 0.2329 - y2_output_loss: 0.8363 -
 y1_output_root_mean_squared_error: 0.4829 - y2_output_root_mean_squared_error:
 0.9173 - val_loss: 1.0360 - val_y1_output_loss: 0.2316 - val_y2_output_loss:
 0.8058 - val_y1_output_root_mean_squared_error: 0.4848 -
 val_y2_output_root_mean_squared_error: 0.8950
 Epoch 277/500
 614/614 [=====] - 0s 128us/sample - loss: 0.8459 -

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y1_output_loss: 0.1683 - y2_output_loss: 0.6765 -
y1_output_root_mean_squared_error: 0.4121 - y2_output_root_mean_squared_error:
0.8222 - val_loss: 0.9217 - val_y1_output_loss: 0.1887 - val_y2_output_loss:
0.7180 - val_y1_output_root_mean_squared_error: 0.4407 -
val_y2_output_root_mean_squared_error: 0.8529
Epoch 278/500
614/614 [=====] - 0s 124us/sample - loss: 0.7979 -
y1_output_loss: 0.1730 - y2_output_loss: 0.6247 -
y1_output_root_mean_squared_error: 0.4141 - y2_output_root_mean_squared_error:
0.7914 - val_loss: 0.8765 - val_y1_output_loss: 0.1828 - val_y2_output_loss:
0.6840 - val_y1_output_root_mean_squared_error: 0.4309 -
val_y2_output_root_mean_squared_error: 0.8312
Epoch 279/500
614/614 [=====] - 0s 130us/sample - loss: 0.9116 -
y1_output_loss: 0.1839 - y2_output_loss: 0.7346 -
y1_output_root_mean_squared_error: 0.4259 - y2_output_root_mean_squared_error:
0.8545 - val_loss: 1.9702 - val_y1_output_loss: 0.3294 - val_y2_output_loss:
1.5808 - val_y1_output_root_mean_squared_error: 0.5785 -
val_y2_output_root_mean_squared_error: 1.2789
Epoch 280/500
614/614 [=====] - 0s 123us/sample - loss: 1.0814 -
y1_output_loss: 0.2130 - y2_output_loss: 0.8674 -
y1_output_root_mean_squared_error: 0.4605 - y2_output_root_mean_squared_error:
0.9324 - val_loss: 1.1700 - val_y1_output_loss: 0.3494 - val_y2_output_loss:
0.8378 - val_y1_output_root_mean_squared_error: 0.5997 -
val_y2_output_root_mean_squared_error: 0.9002
Epoch 281/500
614/614 [=====] - 0s 131us/sample - loss: 1.5684 -
y1_output_loss: 0.3633 - y2_output_loss: 1.2095 -
y1_output_root_mean_squared_error: 0.5966 - y2_output_root_mean_squared_error:
1.1011 - val_loss: 4.7760 - val_y1_output_loss: 2.1267 - val_y2_output_loss:
2.6513 - val_y1_output_root_mean_squared_error: 1.4787 -
val_y2_output_root_mean_squared_error: 1.6092
Epoch 282/500
614/614 [=====] - 0s 130us/sample - loss: 1.5581 -
y1_output_loss: 0.3515 - y2_output_loss: 1.1941 -
y1_output_root_mean_squared_error: 0.5952 - y2_output_root_mean_squared_error:
1.0972 - val_loss: 1.0716 - val_y1_output_loss: 0.2153 - val_y2_output_loss:
0.8420 - val_y1_output_root_mean_squared_error: 0.4686 -
val_y2_output_root_mean_squared_error: 0.9231
Epoch 283/500
614/614 [=====] - 0s 126us/sample - loss: 0.9967 -
y1_output_loss: 0.2163 - y2_output_loss: 0.7737 -
y1_output_root_mean_squared_error: 0.4668 - y2_output_root_mean_squared_error:
0.8825 - val_loss: 0.9776 - val_y1_output_loss: 0.1849 - val_y2_output_loss:
0.7741 - val_y1_output_root_mean_squared_error: 0.4364 -
val_y2_output_root_mean_squared_error: 0.8872
Epoch 284/500

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614/614 [=====] - 0s 124us/sample - loss: 1.8573 -
y1_output_loss: 0.4200 - y2_output_loss: 1.4892 -
y1_output_root_mean_squared_error: 0.6411 - y2_output_root_mean_squared_error:
1.2026 - val_loss: 16.6992 - val_y1_output_loss: 3.8621 - val_y2_output_loss:
12.3751 - val_y1_output_root_mean_squared_error: 1.9851 -
val_y2_output_root_mean_squared_error: 3.5719
Epoch 285/500
614/614 [=====] - 0s 131us/sample - loss: 0.9515 -
y1_output_loss: 0.2253 - y2_output_loss: 0.7284 -
y1_output_root_mean_squared_error: 0.4744 - y2_output_root_mean_squared_error:
0.8523 - val_loss: 1.1989 - val_y1_output_loss: 0.2444 - val_y2_output_loss:
0.9271 - val_y1_output_root_mean_squared_error: 0.4992 -
val_y2_output_root_mean_squared_error: 0.9745
Epoch 286/500
614/614 [=====] - 0s 132us/sample - loss: 0.8809 -
y1_output_loss: 0.2120 - y2_output_loss: 0.6729 -
y1_output_root_mean_squared_error: 0.4561 - y2_output_root_mean_squared_error:
0.8202 - val_loss: 2.8305 - val_y1_output_loss: 0.4900 - val_y2_output_loss:
2.2698 - val_y1_output_root_mean_squared_error: 0.7042 -
val_y2_output_root_mean_squared_error: 1.5279
Epoch 287/500
614/614 [=====] - 0s 127us/sample - loss: 0.9456 -
y1_output_loss: 0.2065 - y2_output_loss: 0.7336 -
y1_output_root_mean_squared_error: 0.4564 - y2_output_root_mean_squared_error:
0.8587 - val_loss: 0.8207 - val_y1_output_loss: 0.1947 - val_y2_output_loss:
0.6188 - val_y1_output_root_mean_squared_error: 0.4476 -
val_y2_output_root_mean_squared_error: 0.7876
Epoch 288/500
614/614 [=====] - 0s 132us/sample - loss: 1.4564 -
y1_output_loss: 0.2785 - y2_output_loss: 1.1674 -
y1_output_root_mean_squared_error: 0.5298 - y2_output_root_mean_squared_error:
1.0843 - val_loss: 1.0576 - val_y1_output_loss: 0.1916 - val_y2_output_loss:
0.8350 - val_y1_output_root_mean_squared_error: 0.4426 -
val_y2_output_root_mean_squared_error: 0.9283
Epoch 289/500
614/614 [=====] - 0s 125us/sample - loss: 0.9814 -
y1_output_loss: 0.1973 - y2_output_loss: 0.7795 -
y1_output_root_mean_squared_error: 0.4421 - y2_output_root_mean_squared_error:
0.8865 - val_loss: 1.7716 - val_y1_output_loss: 0.4837 - val_y2_output_loss:
1.2351 - val_y1_output_root_mean_squared_error: 0.7042 -
val_y2_output_root_mean_squared_error: 1.1295
Epoch 290/500
614/614 [=====] - 0s 132us/sample - loss: 1.0850 -
y1_output_loss: 0.2316 - y2_output_loss: 0.8450 -
y1_output_root_mean_squared_error: 0.4831 - y2_output_root_mean_squared_error:
0.9228 - val_loss: 1.5629 - val_y1_output_loss: 0.2766 - val_y2_output_loss:
1.2371 - val_y1_output_root_mean_squared_error: 0.5325 -
val_y2_output_root_mean_squared_error: 1.1311

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Epoch 291/500
614/614 [=====] - 0s 131us/sample - loss: 1.1632 -
y1_output_loss: 0.2579 - y2_output_loss: 0.8966 -
y1_output_root_mean_squared_error: 0.5087 - y2_output_root_mean_squared_error:
0.9510 - val_loss: 1.4738 - val_y1_output_loss: 0.3707 - val_y2_output_loss:
1.0808 - val_y1_output_root_mean_squared_error: 0.6148 -
val_y2_output_root_mean_squared_error: 1.0468
Epoch 292/500
614/614 [=====] - 0s 142us/sample - loss: 0.9853 -
y1_output_loss: 0.2240 - y2_output_loss: 0.7549 -
y1_output_root_mean_squared_error: 0.4749 - y2_output_root_mean_squared_error:
0.8716 - val_loss: 1.1427 - val_y1_output_loss: 0.2210 - val_y2_output_loss:
0.8921 - val_y1_output_root_mean_squared_error: 0.4739 -
val_y2_output_root_mean_squared_error: 0.9582
Epoch 293/500
614/614 [=====] - 0s 141us/sample - loss: 1.0453 -
y1_output_loss: 0.2159 - y2_output_loss: 0.8276 -
y1_output_root_mean_squared_error: 0.4640 - y2_output_root_mean_squared_error:
0.9110 - val_loss: 1.2366 - val_y1_output_loss: 0.5514 - val_y2_output_loss:
0.6599 - val_y1_output_root_mean_squared_error: 0.7554 -
val_y2_output_root_mean_squared_error: 0.8160
Epoch 294/500
614/614 [=====] - 0s 126us/sample - loss: 0.8572 -
y1_output_loss: 0.1908 - y2_output_loss: 0.6628 -
y1_output_root_mean_squared_error: 0.4374 - y2_output_root_mean_squared_error:
0.8160 - val_loss: 1.2165 - val_y1_output_loss: 0.2878 - val_y2_output_loss:
0.9282 - val_y1_output_root_mean_squared_error: 0.5385 -
val_y2_output_root_mean_squared_error: 0.9625
Epoch 295/500
614/614 [=====] - 0s 124us/sample - loss: 1.1994 -
y1_output_loss: 0.2654 - y2_output_loss: 0.9330 -
y1_output_root_mean_squared_error: 0.5159 - y2_output_root_mean_squared_error:
0.9661 - val_loss: 1.7727 - val_y1_output_loss: 0.3281 - val_y2_output_loss:
1.4195 - val_y1_output_root_mean_squared_error: 0.5826 -
val_y2_output_root_mean_squared_error: 1.1972
Epoch 296/500
614/614 [=====] - 0s 126us/sample - loss: 1.2459 -
y1_output_loss: 0.2742 - y2_output_loss: 0.9750 -
y1_output_root_mean_squared_error: 0.5231 - y2_output_root_mean_squared_error:
0.9860 - val_loss: 1.6525 - val_y1_output_loss: 0.1794 - val_y2_output_loss:
1.4848 - val_y1_output_root_mean_squared_error: 0.4264 -
val_y2_output_root_mean_squared_error: 1.2127
Epoch 297/500
614/614 [=====] - 0s 127us/sample - loss: 1.0271 -
y1_output_loss: 0.2442 - y2_output_loss: 0.7779 -
y1_output_root_mean_squared_error: 0.4959 - y2_output_root_mean_squared_error:
0.8839 - val_loss: 1.1399 - val_y1_output_loss: 0.1965 - val_y2_output_loss:
0.9464 - val_y1_output_root_mean_squared_error: 0.4509 -

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val_y2_output_root_mean_squared_error: 0.9678
Epoch 298/500
614/614 [=====] - 0s 130us/sample - loss: 0.9593 -
y1_output_loss: 0.2453 - y2_output_loss: 0.7062 -
y1_output_root_mean_squared_error: 0.4972 - y2_output_root_mean_squared_error:
0.8439 - val_loss: 0.8882 - val_y1_output_loss: 0.2079 - val_y2_output_loss:
0.6741 - val_y1_output_root_mean_squared_error: 0.4603 -
val_y2_output_root_mean_squared_error: 0.8223
Epoch 299/500
614/614 [=====] - 0s 130us/sample - loss: 0.9767 -
y1_output_loss: 0.2154 - y2_output_loss: 0.7611 -
y1_output_root_mean_squared_error: 0.4650 - y2_output_root_mean_squared_error:
0.8720 - val_loss: 2.1450 - val_y1_output_loss: 0.5262 - val_y2_output_loss:
1.5684 - val_y1_output_root_mean_squared_error: 0.7383 -
val_y2_output_root_mean_squared_error: 1.2648
Epoch 300/500
614/614 [=====] - 0s 123us/sample - loss: 0.8240 -
y1_output_loss: 0.2104 - y2_output_loss: 0.6212 -
y1_output_root_mean_squared_error: 0.4542 - y2_output_root_mean_squared_error:
0.7859 - val_loss: 2.8079 - val_y1_output_loss: 0.2477 - val_y2_output_loss:
2.4682 - val_y1_output_root_mean_squared_error: 0.4985 -
val_y2_output_root_mean_squared_error: 1.5998
Epoch 301/500
614/614 [=====] - 0s 133us/sample - loss: 1.0263 -
y1_output_loss: 0.1926 - y2_output_loss: 0.8590 -
y1_output_root_mean_squared_error: 0.4331 - y2_output_root_mean_squared_error:
0.9158 - val_loss: 7.8767 - val_y1_output_loss: 1.1860 - val_y2_output_loss:
6.8055 - val_y1_output_root_mean_squared_error: 1.1034 -
val_y2_output_root_mean_squared_error: 2.5806
Epoch 302/500
614/614 [=====] - 0s 127us/sample - loss: 1.0528 -
y1_output_loss: 0.2066 - y2_output_loss: 0.8384 -
y1_output_root_mean_squared_error: 0.4551 - y2_output_root_mean_squared_error:
0.9196 - val_loss: 1.0721 - val_y1_output_loss: 0.2608 - val_y2_output_loss:
0.7884 - val_y1_output_root_mean_squared_error: 0.5157 -
val_y2_output_root_mean_squared_error: 0.8978
Epoch 303/500
614/614 [=====] - 0s 128us/sample - loss: 1.4859 -
y1_output_loss: 0.3054 - y2_output_loss: 1.1965 -
y1_output_root_mean_squared_error: 0.5496 - y2_output_root_mean_squared_error:
1.0881 - val_loss: 4.5355 - val_y1_output_loss: 0.6583 - val_y2_output_loss:
3.7387 - val_y1_output_root_mean_squared_error: 0.8168 -
val_y2_output_root_mean_squared_error: 1.9668
Epoch 304/500
614/614 [=====] - 0s 125us/sample - loss: 1.2402 -
y1_output_loss: 0.2310 - y2_output_loss: 1.0013 -
y1_output_root_mean_squared_error: 0.4828 - y2_output_root_mean_squared_error:
1.0036 - val_loss: 1.2789 - val_y1_output_loss: 0.1824 - val_y2_output_loss:

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1.1123 - val_y1_output_root_mean_squared_error: 0.4303 -
 val_y2_output_root_mean_squared_error: 1.0458
 Epoch 305/500
 614/614 [=====] - 0s 123us/sample - loss: 0.8338 -
 y1_output_loss: 0.1988 - y2_output_loss: 0.6558 -
 y1_output_root_mean_squared_error: 0.4470 - y2_output_root_mean_squared_error:
 0.7962 - val_loss: 3.6689 - val_y1_output_loss: 0.3074 - val_y2_output_loss:
 3.2384 - val_y1_output_root_mean_squared_error: 0.5561 -
 val_y2_output_root_mean_squared_error: 1.8329
 Epoch 306/500
 614/614 [=====] - 0s 160us/sample - loss: 1.3394 -
 y1_output_loss: 0.2712 - y2_output_loss: 1.0628 -
 y1_output_root_mean_squared_error: 0.5229 - y2_output_root_mean_squared_error:
 1.0325 - val_loss: 0.9252 - val_y1_output_loss: 0.2845 - val_y2_output_loss:
 0.6578 - val_y1_output_root_mean_squared_error: 0.5409 -
 val_y2_output_root_mean_squared_error: 0.7954
 Epoch 307/500
 614/614 [=====] - 0s 134us/sample - loss: 0.9392 -
 y1_output_loss: 0.2054 - y2_output_loss: 0.7412 -
 y1_output_root_mean_squared_error: 0.4519 - y2_output_root_mean_squared_error:
 0.8573 - val_loss: 1.6839 - val_y1_output_loss: 0.4851 - val_y2_output_loss:
 1.1751 - val_y1_output_root_mean_squared_error: 0.7024 -
 val_y2_output_root_mean_squared_error: 1.0911
 Epoch 308/500
 614/614 [=====] - 0s 127us/sample - loss: 0.7918 -
 y1_output_loss: 0.1989 - y2_output_loss: 0.5879 -
 y1_output_root_mean_squared_error: 0.4473 - y2_output_root_mean_squared_error:
 0.7692 - val_loss: 0.9572 - val_y1_output_loss: 0.2079 - val_y2_output_loss:
 0.7586 - val_y1_output_root_mean_squared_error: 0.4618 -
 val_y2_output_root_mean_squared_error: 0.8625
 Epoch 309/500
 614/614 [=====] - 0s 127us/sample - loss: 1.0125 -
 y1_output_loss: 0.2131 - y2_output_loss: 0.8187 -
 y1_output_root_mean_squared_error: 0.4613 - y2_output_root_mean_squared_error:
 0.8942 - val_loss: 3.3989 - val_y1_output_loss: 0.3025 - val_y2_output_loss:
 2.9790 - val_y1_output_root_mean_squared_error: 0.5539 -
 val_y2_output_root_mean_squared_error: 1.7584
 Epoch 310/500
 614/614 [=====] - 0s 123us/sample - loss: 1.5763 -
 y1_output_loss: 0.3996 - y2_output_loss: 1.1805 -
 y1_output_root_mean_squared_error: 0.6340 - y2_output_root_mean_squared_error:
 1.0837 - val_loss: 2.3657 - val_y1_output_loss: 0.4003 - val_y2_output_loss:
 1.9682 - val_y1_output_root_mean_squared_error: 0.6428 -
 val_y2_output_root_mean_squared_error: 1.3973
 Epoch 311/500
 614/614 [=====] - 0s 123us/sample - loss: 0.9981 -
 y1_output_loss: 0.2263 - y2_output_loss: 0.7780 -
 y1_output_root_mean_squared_error: 0.4775 - y2_output_root_mean_squared_error:

0.8775 - val_loss: 2.1901 - val_y1_output_loss: 0.2836 - val_y2_output_loss:
 1.8334 - val_y1_output_root_mean_squared_error: 0.5358 -
 val_y2_output_root_mean_squared_error: 1.3795
 Epoch 312/500
 614/614 [=====] - 0s 128us/sample - loss: 0.9178 -
 y1_output_loss: 0.1868 - y2_output_loss: 0.7225 -
 y1_output_root_mean_squared_error: 0.4342 - y2_output_root_mean_squared_error:
 0.8540 - val_loss: 0.8886 - val_y1_output_loss: 0.2708 - val_y2_output_loss:
 0.6063 - val_y1_output_root_mean_squared_error: 0.5254 -
 val_y2_output_root_mean_squared_error: 0.7827
 Epoch 313/500
 614/614 [=====] - 0s 131us/sample - loss: 1.1789 -
 y1_output_loss: 0.2380 - y2_output_loss: 0.9329 -
 y1_output_root_mean_squared_error: 0.4887 - y2_output_root_mean_squared_error:
 0.9695 - val_loss: 1.0543 - val_y1_output_loss: 0.1861 - val_y2_output_loss:
 0.8742 - val_y1_output_root_mean_squared_error: 0.4315 -
 val_y2_output_root_mean_squared_error: 0.9317
 Epoch 314/500
 614/614 [=====] - 0s 129us/sample - loss: 0.8145 -
 y1_output_loss: 0.1939 - y2_output_loss: 0.6147 -
 y1_output_root_mean_squared_error: 0.4417 - y2_output_root_mean_squared_error:
 0.7870 - val_loss: 0.9913 - val_y1_output_loss: 0.1920 - val_y2_output_loss:
 0.7734 - val_y1_output_root_mean_squared_error: 0.4399 -
 val_y2_output_root_mean_squared_error: 0.8932
 Epoch 315/500
 614/614 [=====] - 0s 122us/sample - loss: 1.0719 -
 y1_output_loss: 0.2282 - y2_output_loss: 0.8378 -
 y1_output_root_mean_squared_error: 0.4792 - y2_output_root_mean_squared_error:
 0.9178 - val_loss: 0.8401 - val_y1_output_loss: 0.1798 - val_y2_output_loss:
 0.6624 - val_y1_output_root_mean_squared_error: 0.4277 -
 val_y2_output_root_mean_squared_error: 0.8107
 Epoch 316/500
 614/614 [=====] - 0s 128us/sample - loss: 0.9893 -
 y1_output_loss: 0.1933 - y2_output_loss: 0.7886 -
 y1_output_root_mean_squared_error: 0.4408 - y2_output_root_mean_squared_error:
 0.8916 - val_loss: 1.0348 - val_y1_output_loss: 0.2463 - val_y2_output_loss:
 0.8047 - val_y1_output_root_mean_squared_error: 0.5003 -
 val_y2_output_root_mean_squared_error: 0.8857
 Epoch 317/500
 614/614 [=====] - 0s 125us/sample - loss: 0.8167 -
 y1_output_loss: 0.2101 - y2_output_loss: 0.6069 -
 y1_output_root_mean_squared_error: 0.4602 - y2_output_root_mean_squared_error:
 0.7778 - val_loss: 3.3363 - val_y1_output_loss: 0.3964 - val_y2_output_loss:
 2.8279 - val_y1_output_root_mean_squared_error: 0.6352 -
 val_y2_output_root_mean_squared_error: 1.7126
 Epoch 318/500
 614/614 [=====] - 0s 127us/sample - loss: 0.9983 -
 y1_output_loss: 0.2453 - y2_output_loss: 0.7444 -

y1_output_root_mean_squared_error: 0.4970 - y2_output_root_mean_squared_error:
0.8668 - val_loss: 0.7939 - val_y1_output_loss: 0.1816 - val_y2_output_loss:
0.6219 - val_y1_output_root_mean_squared_error: 0.4293 -
val_y2_output_root_mean_squared_error: 0.7808
Epoch 319/500
614/614 [=====] - 0s 128us/sample - loss: 0.7449 -
y1_output_loss: 0.1560 - y2_output_loss: 0.5832 -
y1_output_root_mean_squared_error: 0.3966 - y2_output_root_mean_squared_error:
0.7666 - val_loss: 0.9714 - val_y1_output_loss: 0.2201 - val_y2_output_loss:
0.7525 - val_y1_output_root_mean_squared_error: 0.4762 -
val_y2_output_root_mean_squared_error: 0.8629
Epoch 320/500
614/614 [=====] - 0s 127us/sample - loss: 1.0324 -
y1_output_loss: 0.2331 - y2_output_loss: 0.7970 -
y1_output_root_mean_squared_error: 0.4849 - y2_output_root_mean_squared_error:
0.8929 - val_loss: 1.4046 - val_y1_output_loss: 0.2185 - val_y2_output_loss:
1.2026 - val_y1_output_root_mean_squared_error: 0.4746 -
val_y2_output_root_mean_squared_error: 1.0860
Epoch 321/500
614/614 [=====] - 0s 141us/sample - loss: 0.9756 -
y1_output_loss: 0.2040 - y2_output_loss: 0.7687 -
y1_output_root_mean_squared_error: 0.4522 - y2_output_root_mean_squared_error:
0.8781 - val_loss: 1.2981 - val_y1_output_loss: 0.1748 - val_y2_output_loss:
1.0917 - val_y1_output_root_mean_squared_error: 0.4207 -
val_y2_output_root_mean_squared_error: 1.0589
Epoch 322/500
614/614 [=====] - 0s 126us/sample - loss: 0.8684 -
y1_output_loss: 0.2175 - y2_output_loss: 0.6491 -
y1_output_root_mean_squared_error: 0.4636 - y2_output_root_mean_squared_error:
0.8084 - val_loss: 2.0267 - val_y1_output_loss: 0.2690 - val_y2_output_loss:
1.7724 - val_y1_output_root_mean_squared_error: 0.5261 -
val_y2_output_root_mean_squared_error: 1.3228
Epoch 323/500
614/614 [=====] - 0s 134us/sample - loss: 1.0026 -
y1_output_loss: 0.1933 - y2_output_loss: 0.8023 -
y1_output_root_mean_squared_error: 0.4396 - y2_output_root_mean_squared_error:
0.8996 - val_loss: 0.8458 - val_y1_output_loss: 0.2146 - val_y2_output_loss:
0.6386 - val_y1_output_root_mean_squared_error: 0.4657 -
val_y2_output_root_mean_squared_error: 0.7930
Epoch 324/500
614/614 [=====] - 0s 133us/sample - loss: 0.7341 -
y1_output_loss: 0.1629 - y2_output_loss: 0.5712 -
y1_output_root_mean_squared_error: 0.4025 - y2_output_root_mean_squared_error:
0.7564 - val_loss: 1.8955 - val_y1_output_loss: 0.4144 - val_y2_output_loss:
1.4281 - val_y1_output_root_mean_squared_error: 0.6475 -
val_y2_output_root_mean_squared_error: 1.2150
Epoch 325/500
614/614 [=====] - 0s 128us/sample - loss: 0.9060 -

y1_output_loss: 0.1822 - y2_output_loss: 0.7194 -
y1_output_root_mean_squared_error: 0.4288 - y2_output_root_mean_squared_error:
0.8498 - val_loss: 0.7577 - val_y1_output_loss: 0.1790 - val_y2_output_loss:
0.5837 - val_y1_output_root_mean_squared_error: 0.4259 -
val_y2_output_root_mean_squared_error: 0.7591
Epoch 326/500
614/614 [=====] - 0s 126us/sample - loss: 0.9218 -
y1_output_loss: 0.1677 - y2_output_loss: 0.7482 -
y1_output_root_mean_squared_error: 0.4101 - y2_output_root_mean_squared_error:
0.8681 - val_loss: 1.0699 - val_y1_output_loss: 0.2001 - val_y2_output_loss:
0.8418 - val_y1_output_root_mean_squared_error: 0.4474 -
val_y2_output_root_mean_squared_error: 0.9326
Epoch 327/500
614/614 [=====] - 0s 130us/sample - loss: 1.0592 -
y1_output_loss: 0.1957 - y2_output_loss: 0.8575 -
y1_output_root_mean_squared_error: 0.4411 - y2_output_root_mean_squared_error:
0.9299 - val_loss: 0.9555 - val_y1_output_loss: 0.2322 - val_y2_output_loss:
0.7198 - val_y1_output_root_mean_squared_error: 0.4868 -
val_y2_output_root_mean_squared_error: 0.8477
Epoch 328/500
614/614 [=====] - 0s 131us/sample - loss: 1.4137 -
y1_output_loss: 0.3621 - y2_output_loss: 1.0416 -
y1_output_root_mean_squared_error: 0.6020 - y2_output_root_mean_squared_error:
1.0253 - val_loss: 1.0826 - val_y1_output_loss: 0.3300 - val_y2_output_loss:
0.7321 - val_y1_output_root_mean_squared_error: 0.5799 -
val_y2_output_root_mean_squared_error: 0.8639
Epoch 329/500
614/614 [=====] - 0s 131us/sample - loss: 0.7052 -
y1_output_loss: 0.1716 - y2_output_loss: 0.5309 -
y1_output_root_mean_squared_error: 0.4151 - y2_output_root_mean_squared_error:
0.7300 - val_loss: 1.0203 - val_y1_output_loss: 0.2056 - val_y2_output_loss:
0.7918 - val_y1_output_root_mean_squared_error: 0.4571 -
val_y2_output_root_mean_squared_error: 0.9007
Epoch 330/500
614/614 [=====] - 0s 124us/sample - loss: 1.0431 -
y1_output_loss: 0.2146 - y2_output_loss: 0.8226 -
y1_output_root_mean_squared_error: 0.4633 - y2_output_root_mean_squared_error:
0.9102 - val_loss: 0.9507 - val_y1_output_loss: 0.2983 - val_y2_output_loss:
0.6349 - val_y1_output_root_mean_squared_error: 0.5527 -
val_y2_output_root_mean_squared_error: 0.8033
Epoch 331/500
614/614 [=====] - 0s 126us/sample - loss: 0.8995 -
y1_output_loss: 0.2118 - y2_output_loss: 0.6800 -
y1_output_root_mean_squared_error: 0.4616 - y2_output_root_mean_squared_error:
0.8285 - val_loss: 1.8697 - val_y1_output_loss: 0.3020 - val_y2_output_loss:
1.5121 - val_y1_output_root_mean_squared_error: 0.5472 -
val_y2_output_root_mean_squared_error: 1.2531
Epoch 332/500

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614/614 [=====] - 0s 128us/sample - loss: 0.9343 -
y1_output_loss: 0.2078 - y2_output_loss: 0.7214 -
y1_output_root_mean_squared_error: 0.4572 - y2_output_root_mean_squared_error:
0.8516 - val_loss: 0.9023 - val_y1_output_loss: 0.2067 - val_y2_output_loss:
0.6794 - val_y1_output_root_mean_squared_error: 0.4502 -
val_y2_output_root_mean_squared_error: 0.8364
Epoch 333/500
614/614 [=====] - 0s 124us/sample - loss: 0.6805 -
y1_output_loss: 0.1578 - y2_output_loss: 0.5179 -
y1_output_root_mean_squared_error: 0.3971 - y2_output_root_mean_squared_error:
0.7230 - val_loss: 0.9519 - val_y1_output_loss: 0.2176 - val_y2_output_loss:
0.7118 - val_y1_output_root_mean_squared_error: 0.4677 -
val_y2_output_root_mean_squared_error: 0.8563
Epoch 334/500
614/614 [=====] - 0s 128us/sample - loss: 0.8513 -
y1_output_loss: 0.2038 - y2_output_loss: 0.6500 -
y1_output_root_mean_squared_error: 0.4522 - y2_output_root_mean_squared_error:
0.8042 - val_loss: 1.4102 - val_y1_output_loss: 0.2617 - val_y2_output_loss:
1.1203 - val_y1_output_root_mean_squared_error: 0.5087 -
val_y2_output_root_mean_squared_error: 1.0730
Epoch 335/500
614/614 [=====] - 0s 124us/sample - loss: 0.8812 -
y1_output_loss: 0.1876 - y2_output_loss: 0.6904 -
y1_output_root_mean_squared_error: 0.4342 - y2_output_root_mean_squared_error:
0.8323 - val_loss: 1.3686 - val_y1_output_loss: 0.2407 - val_y2_output_loss:
1.0897 - val_y1_output_root_mean_squared_error: 0.4911 -
val_y2_output_root_mean_squared_error: 1.0618
Epoch 336/500
614/614 [=====] - 0s 129us/sample - loss: 0.9320 -
y1_output_loss: 0.2203 - y2_output_loss: 0.7219 -
y1_output_root_mean_squared_error: 0.4691 - y2_output_root_mean_squared_error:
0.8437 - val_loss: 1.4869 - val_y1_output_loss: 0.2463 - val_y2_output_loss:
1.2304 - val_y1_output_root_mean_squared_error: 0.5007 -
val_y2_output_root_mean_squared_error: 1.1118
Epoch 337/500
614/614 [=====] - 0s 129us/sample - loss: 0.9015 -
y1_output_loss: 0.1960 - y2_output_loss: 0.7155 -
y1_output_root_mean_squared_error: 0.4409 - y2_output_root_mean_squared_error:
0.8409 - val_loss: 1.3605 - val_y1_output_loss: 0.2444 - val_y2_output_loss:
1.1414 - val_y1_output_root_mean_squared_error: 0.4969 -
val_y2_output_root_mean_squared_error: 1.0553
Epoch 338/500
614/614 [=====] - 0s 123us/sample - loss: 0.9431 -
y1_output_loss: 0.2149 - y2_output_loss: 0.7253 -
y1_output_root_mean_squared_error: 0.4636 - y2_output_root_mean_squared_error:
0.8533 - val_loss: 0.8972 - val_y1_output_loss: 0.2567 - val_y2_output_loss:
0.6401 - val_y1_output_root_mean_squared_error: 0.5028 -
val_y2_output_root_mean_squared_error: 0.8028

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Epoch 339/500

614/614 [=====] - 0s 129us/sample - loss: 0.9339 -
y1_output_loss: 0.1885 - y2_output_loss: 0.7785 -
y1_output_root_mean_squared_error: 0.4362 - y2_output_root_mean_squared_error:
0.8623 - val_loss: 5.6516 - val_y1_output_loss: 0.2955 - val_y2_output_loss:
5.3956 - val_y1_output_root_mean_squared_error: 0.5520 -
val_y2_output_root_mean_squared_error: 2.3123

Epoch 340/500

614/614 [=====] - 0s 126us/sample - loss: 0.8385 -
y1_output_loss: 0.1645 - y2_output_loss: 0.6750 -
y1_output_root_mean_squared_error: 0.4063 - y2_output_root_mean_squared_error:
0.8206 - val_loss: 0.7264 - val_y1_output_loss: 0.1842 - val_y2_output_loss:
0.5354 - val_y1_output_root_mean_squared_error: 0.4298 -
val_y2_output_root_mean_squared_error: 0.7360

Epoch 341/500

614/614 [=====] - 0s 128us/sample - loss: 0.6640 -
y1_output_loss: 0.1597 - y2_output_loss: 0.5007 -
y1_output_root_mean_squared_error: 0.3986 - y2_output_root_mean_squared_error:
0.7107 - val_loss: 1.0549 - val_y1_output_loss: 0.2707 - val_y2_output_loss:
0.7646 - val_y1_output_root_mean_squared_error: 0.5200 -
val_y2_output_root_mean_squared_error: 0.8857

Epoch 342/500

614/614 [=====] - 0s 128us/sample - loss: 0.7388 -
y1_output_loss: 0.1720 - y2_output_loss: 0.5638 -
y1_output_root_mean_squared_error: 0.4162 - y2_output_root_mean_squared_error:
0.7521 - val_loss: 0.8121 - val_y1_output_loss: 0.1652 - val_y2_output_loss:
0.6485 - val_y1_output_root_mean_squared_error: 0.4084 -
val_y2_output_root_mean_squared_error: 0.8033

Epoch 343/500

614/614 [=====] - 0s 127us/sample - loss: 1.0721 -
y1_output_loss: 0.1861 - y2_output_loss: 0.8770 -
y1_output_root_mean_squared_error: 0.4323 - y2_output_root_mean_squared_error:
0.9409 - val_loss: 0.9108 - val_y1_output_loss: 0.2376 - val_y2_output_loss:
0.6630 - val_y1_output_root_mean_squared_error: 0.4864 -
val_y2_output_root_mean_squared_error: 0.8211

Epoch 344/500

614/614 [=====] - 0s 123us/sample - loss: 0.8600 -
y1_output_loss: 0.2032 - y2_output_loss: 0.6503 -
y1_output_root_mean_squared_error: 0.4525 - y2_output_root_mean_squared_error:
0.8095 - val_loss: 0.8751 - val_y1_output_loss: 0.1883 - val_y2_output_loss:
0.6744 - val_y1_output_root_mean_squared_error: 0.4346 -
val_y2_output_root_mean_squared_error: 0.8283

Epoch 345/500

614/614 [=====] - 0s 127us/sample - loss: 0.9019 -
y1_output_loss: 0.1820 - y2_output_loss: 0.7176 -
y1_output_root_mean_squared_error: 0.4261 - y2_output_root_mean_squared_error:
0.8487 - val_loss: 1.0540 - val_y1_output_loss: 0.3451 - val_y2_output_loss:
0.6949 - val_y1_output_root_mean_squared_error: 0.5964 -

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val_y2_output_root_mean_squared_error: 0.8356
Epoch 346/500
614/614 [=====] - 0s 128us/sample - loss: 0.7947 -
y1_output_loss: 0.1976 - y2_output_loss: 0.5927 -
y1_output_root_mean_squared_error: 0.4459 - y2_output_root_mean_squared_error:
0.7719 - val_loss: 0.8919 - val_y1_output_loss: 0.1828 - val_y2_output_loss:
0.7084 - val_y1_output_root_mean_squared_error: 0.4331 -
val_y2_output_root_mean_squared_error: 0.8393
Epoch 347/500
614/614 [=====] - 0s 128us/sample - loss: 0.8672 -
y1_output_loss: 0.1846 - y2_output_loss: 0.6765 -
y1_output_root_mean_squared_error: 0.4303 - y2_output_root_mean_squared_error:
0.8259 - val_loss: 0.7367 - val_y1_output_loss: 0.1886 - val_y2_output_loss:
0.5480 - val_y1_output_root_mean_squared_error: 0.4410 -
val_y2_output_root_mean_squared_error: 0.7363
Epoch 348/500
614/614 [=====] - 0s 128us/sample - loss: 0.8826 -
y1_output_loss: 0.1775 - y2_output_loss: 0.7035 -
y1_output_root_mean_squared_error: 0.4226 - y2_output_root_mean_squared_error:
0.8391 - val_loss: 1.0156 - val_y1_output_loss: 0.1692 - val_y2_output_loss:
0.8185 - val_y1_output_root_mean_squared_error: 0.4118 -
val_y2_output_root_mean_squared_error: 0.9198
Epoch 349/500
614/614 [=====] - 0s 132us/sample - loss: 0.7646 -
y1_output_loss: 0.1711 - y2_output_loss: 0.5952 -
y1_output_root_mean_squared_error: 0.4112 - y2_output_root_mean_squared_error:
0.7717 - val_loss: 2.7166 - val_y1_output_loss: 0.9399 - val_y2_output_loss:
1.7236 - val_y1_output_root_mean_squared_error: 0.9872 -
val_y2_output_root_mean_squared_error: 1.3198
Epoch 350/500
614/614 [=====] - 0s 132us/sample - loss: 0.7639 -
y1_output_loss: 0.1869 - y2_output_loss: 0.5877 -
y1_output_root_mean_squared_error: 0.4304 - y2_output_root_mean_squared_error:
0.7607 - val_loss: 1.5146 - val_y1_output_loss: 0.4457 - val_y2_output_loss:
1.0605 - val_y1_output_root_mean_squared_error: 0.6726 -
val_y2_output_root_mean_squared_error: 1.0306
Epoch 351/500
614/614 [=====] - 0s 129us/sample - loss: 0.7367 -
y1_output_loss: 0.1979 - y2_output_loss: 0.5583 -
y1_output_root_mean_squared_error: 0.4375 - y2_output_root_mean_squared_error:
0.7385 - val_loss: 2.4283 - val_y1_output_loss: 0.8455 - val_y2_output_loss:
1.5200 - val_y1_output_root_mean_squared_error: 0.9352 -
val_y2_output_root_mean_squared_error: 1.2464
Epoch 352/500
614/614 [=====] - 0s 133us/sample - loss: 1.1716 -
y1_output_loss: 0.2797 - y2_output_loss: 0.9161 -
y1_output_root_mean_squared_error: 0.5298 - y2_output_root_mean_squared_error:
0.9439 - val_loss: 2.5809 - val_y1_output_loss: 0.3882 - val_y2_output_loss:

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2.1333 - val_y1_output_root_mean_squared_error: 0.6257 -
 val_y2_output_root_mean_squared_error: 1.4797
 Epoch 353/500
 614/614 [=====] - 0s 129us/sample - loss: 0.6481 -
 y1_output_loss: 0.1529 - y2_output_loss: 0.4918 -
 y1_output_root_mean_squared_error: 0.3907 - y2_output_root_mean_squared_error:
 0.7039 - val_loss: 0.8992 - val_y1_output_loss: 0.3219 - val_y2_output_loss:
 0.5843 - val_y1_output_root_mean_squared_error: 0.5765 -
 val_y2_output_root_mean_squared_error: 0.7529
 Epoch 354/500
 614/614 [=====] - 0s 127us/sample - loss: 0.7950 -
 y1_output_loss: 0.1931 - y2_output_loss: 0.5950 -
 y1_output_root_mean_squared_error: 0.4412 - y2_output_root_mean_squared_error:
 0.7748 - val_loss: 0.8011 - val_y1_output_loss: 0.1982 - val_y2_output_loss:
 0.6116 - val_y1_output_root_mean_squared_error: 0.4511 -
 val_y2_output_root_mean_squared_error: 0.7731
 Epoch 355/500
 614/614 [=====] - 0s 124us/sample - loss: 0.8939 -
 y1_output_loss: 0.1854 - y2_output_loss: 0.7001 -
 y1_output_root_mean_squared_error: 0.4326 - y2_output_root_mean_squared_error:
 0.8407 - val_loss: 0.6932 - val_y1_output_loss: 0.1553 - val_y2_output_loss:
 0.5399 - val_y1_output_root_mean_squared_error: 0.3938 -
 val_y2_output_root_mean_squared_error: 0.7336
 Epoch 356/500
 614/614 [=====] - 0s 138us/sample - loss: 0.7762 -
 y1_output_loss: 0.2044 - y2_output_loss: 0.5701 -
 y1_output_root_mean_squared_error: 0.4530 - y2_output_root_mean_squared_error:
 0.7557 - val_loss: 0.8077 - val_y1_output_loss: 0.1777 - val_y2_output_loss:
 0.6133 - val_y1_output_root_mean_squared_error: 0.4239 -
 val_y2_output_root_mean_squared_error: 0.7925
 Epoch 357/500
 614/614 [=====] - 0s 130us/sample - loss: 0.7083 -
 y1_output_loss: 0.1634 - y2_output_loss: 0.5420 -
 y1_output_root_mean_squared_error: 0.4039 - y2_output_root_mean_squared_error:
 0.7383 - val_loss: 0.7171 - val_y1_output_loss: 0.1842 - val_y2_output_loss:
 0.5414 - val_y1_output_root_mean_squared_error: 0.4265 -
 val_y2_output_root_mean_squared_error: 0.7316
 Epoch 358/500
 614/614 [=====] - 0s 128us/sample - loss: 0.8309 -
 y1_output_loss: 0.2232 - y2_output_loss: 0.6044 -
 y1_output_root_mean_squared_error: 0.4736 - y2_output_root_mean_squared_error:
 0.7789 - val_loss: 1.1535 - val_y1_output_loss: 0.2571 - val_y2_output_loss:
 0.9120 - val_y1_output_root_mean_squared_error: 0.5123 -
 val_y2_output_root_mean_squared_error: 0.9439
 Epoch 359/500
 614/614 [=====] - 0s 123us/sample - loss: 0.7577 -
 y1_output_loss: 0.1823 - y2_output_loss: 0.5718 -
 y1_output_root_mean_squared_error: 0.4274 - y2_output_root_mean_squared_error:

0.7583 - val_loss: 0.8599 - val_y1_output_loss: 0.2207 - val_y2_output_loss:
 0.6251 - val_y1_output_root_mean_squared_error: 0.4735 -
 val_y2_output_root_mean_squared_error: 0.7973
 Epoch 360/500
 614/614 [=====] - 0s 127us/sample - loss: 0.8656 -
 y1_output_loss: 0.2039 - y2_output_loss: 0.6563 -
 y1_output_root_mean_squared_error: 0.4533 - y2_output_root_mean_squared_error:
 0.8125 - val_loss: 0.8755 - val_y1_output_loss: 0.2116 - val_y2_output_loss:
 0.6563 - val_y1_output_root_mean_squared_error: 0.4624 -
 val_y2_output_root_mean_squared_error: 0.8134
 Epoch 361/500
 614/614 [=====] - 0s 141us/sample - loss: 0.8536 -
 y1_output_loss: 0.1770 - y2_output_loss: 0.6874 -
 y1_output_root_mean_squared_error: 0.4198 - y2_output_root_mean_squared_error:
 0.8230 - val_loss: 1.1432 - val_y1_output_loss: 0.2898 - val_y2_output_loss:
 0.8552 - val_y1_output_root_mean_squared_error: 0.5467 -
 val_y2_output_root_mean_squared_error: 0.9189
 Epoch 362/500
 614/614 [=====] - 0s 132us/sample - loss: 0.6969 -
 y1_output_loss: 0.1663 - y2_output_loss: 0.5282 -
 y1_output_root_mean_squared_error: 0.4083 - y2_output_root_mean_squared_error:
 0.7281 - val_loss: 0.9976 - val_y1_output_loss: 0.1703 - val_y2_output_loss:
 0.8103 - val_y1_output_root_mean_squared_error: 0.4127 -
 val_y2_output_root_mean_squared_error: 0.9096
 Epoch 363/500
 614/614 [=====] - 0s 127us/sample - loss: 1.2214 -
 y1_output_loss: 0.2560 - y2_output_loss: 0.9593 -
 y1_output_root_mean_squared_error: 0.5057 - y2_output_root_mean_squared_error:
 0.9827 - val_loss: 1.1089 - val_y1_output_loss: 0.2236 - val_y2_output_loss:
 0.9047 - val_y1_output_root_mean_squared_error: 0.4802 -
 val_y2_output_root_mean_squared_error: 0.9372
 Epoch 364/500
 614/614 [=====] - 0s 139us/sample - loss: 0.6731 -
 y1_output_loss: 0.1673 - y2_output_loss: 0.5087 -
 y1_output_root_mean_squared_error: 0.4098 - y2_output_root_mean_squared_error:
 0.7107 - val_loss: 1.0259 - val_y1_output_loss: 0.2180 - val_y2_output_loss:
 0.7845 - val_y1_output_root_mean_squared_error: 0.4653 -
 val_y2_output_root_mean_squared_error: 0.8997
 Epoch 365/500
 614/614 [=====] - 0s 123us/sample - loss: 0.7410 -
 y1_output_loss: 0.1936 - y2_output_loss: 0.5465 -
 y1_output_root_mean_squared_error: 0.4419 - y2_output_root_mean_squared_error:
 0.7387 - val_loss: 0.7749 - val_y1_output_loss: 0.1676 - val_y2_output_loss:
 0.6007 - val_y1_output_root_mean_squared_error: 0.4119 -
 val_y2_output_root_mean_squared_error: 0.7779
 Epoch 366/500
 614/614 [=====] - 0s 128us/sample - loss: 0.8454 -
 y1_output_loss: 0.1919 - y2_output_loss: 0.6492 -

y1_output_root_mean_squared_error: 0.4401 - y2_output_root_mean_squared_error:
0.8073 - val_loss: 1.1409 - val_y1_output_loss: 0.2298 - val_y2_output_loss:
0.8806 - val_y1_output_root_mean_squared_error: 0.4807 -
val_y2_output_root_mean_squared_error: 0.9538
Epoch 367/500
614/614 [=====] - 0s 130us/sample - loss: 1.2977 -
y1_output_loss: 0.2529 - y2_output_loss: 1.0352 -
y1_output_root_mean_squared_error: 0.5041 - y2_output_root_mean_squared_error:
1.0215 - val_loss: 1.0590 - val_y1_output_loss: 0.2585 - val_y2_output_loss:
0.7879 - val_y1_output_root_mean_squared_error: 0.5072 -
val_y2_output_root_mean_squared_error: 0.8954
Epoch 368/500
614/614 [=====] - 0s 134us/sample - loss: 0.7156 -
y1_output_loss: 0.1628 - y2_output_loss: 0.5467 -
y1_output_root_mean_squared_error: 0.4048 - y2_output_root_mean_squared_error:
0.7428 - val_loss: 0.7381 - val_y1_output_loss: 0.1720 - val_y2_output_loss:
0.5510 - val_y1_output_root_mean_squared_error: 0.4170 -
val_y2_output_root_mean_squared_error: 0.7511
Epoch 369/500
614/614 [=====] - 0s 125us/sample - loss: 0.7068 -
y1_output_loss: 0.1674 - y2_output_loss: 0.5351 -
y1_output_root_mean_squared_error: 0.4088 - y2_output_root_mean_squared_error:
0.7347 - val_loss: 1.0589 - val_y1_output_loss: 0.2741 - val_y2_output_loss:
0.7715 - val_y1_output_root_mean_squared_error: 0.5301 -
val_y2_output_root_mean_squared_error: 0.8820
Epoch 370/500
614/614 [=====] - 0s 129us/sample - loss: 0.9946 -
y1_output_loss: 0.2580 - y2_output_loss: 0.7313 -
y1_output_root_mean_squared_error: 0.5100 - y2_output_root_mean_squared_error:
0.8571 - val_loss: 0.9598 - val_y1_output_loss: 0.1960 - val_y2_output_loss:
0.7800 - val_y1_output_root_mean_squared_error: 0.4433 -
val_y2_output_root_mean_squared_error: 0.8737
Epoch 371/500
614/614 [=====] - 0s 143us/sample - loss: 0.6963 -
y1_output_loss: 0.1561 - y2_output_loss: 0.5362 -
y1_output_root_mean_squared_error: 0.3954 - y2_output_root_mean_squared_error:
0.7348 - val_loss: 0.9134 - val_y1_output_loss: 0.2126 - val_y2_output_loss:
0.7025 - val_y1_output_root_mean_squared_error: 0.4664 -
val_y2_output_root_mean_squared_error: 0.8342
Epoch 372/500
614/614 [=====] - 0s 135us/sample - loss: 0.8408 -
y1_output_loss: 0.1980 - y2_output_loss: 0.6382 -
y1_output_root_mean_squared_error: 0.4464 - y2_output_root_mean_squared_error:
0.8010 - val_loss: 0.8719 - val_y1_output_loss: 0.2180 - val_y2_output_loss:
0.6394 - val_y1_output_root_mean_squared_error: 0.4679 -
val_y2_output_root_mean_squared_error: 0.8081
Epoch 373/500
614/614 [=====] - 0s 136us/sample - loss: 0.9445 -

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y1_output_loss: 0.2009 - y2_output_loss: 0.7457 -
y1_output_root_mean_squared_error: 0.4492 - y2_output_root_mean_squared_error:
0.8618 - val_loss: 1.9738 - val_y1_output_loss: 0.2875 - val_y2_output_loss:
1.6252 - val_y1_output_root_mean_squared_error: 0.5375 -
val_y2_output_root_mean_squared_error: 1.2981
Epoch 374/500
614/614 [=====] - 0s 121us/sample - loss: 0.8418 -
y1_output_loss: 0.1990 - y2_output_loss: 0.6521 -
y1_output_root_mean_squared_error: 0.4477 - y2_output_root_mean_squared_error:
0.8008 - val_loss: 1.3436 - val_y1_output_loss: 0.2199 - val_y2_output_loss:
1.0935 - val_y1_output_root_mean_squared_error: 0.4731 -
val_y2_output_root_mean_squared_error: 1.0582
Epoch 375/500
614/614 [=====] - 0s 123us/sample - loss: 0.6216 -
y1_output_loss: 0.1620 - y2_output_loss: 0.4562 -
y1_output_root_mean_squared_error: 0.4024 - y2_output_root_mean_squared_error:
0.6780 - val_loss: 0.8178 - val_y1_output_loss: 0.2430 - val_y2_output_loss:
0.5823 - val_y1_output_root_mean_squared_error: 0.4962 -
val_y2_output_root_mean_squared_error: 0.7560
Epoch 376/500
614/614 [=====] - 0s 128us/sample - loss: 1.1459 -
y1_output_loss: 0.2843 - y2_output_loss: 0.8522 -
y1_output_root_mean_squared_error: 0.5352 - y2_output_root_mean_squared_error:
0.9271 - val_loss: 0.7216 - val_y1_output_loss: 0.1708 - val_y2_output_loss:
0.5492 - val_y1_output_root_mean_squared_error: 0.4165 -
val_y2_output_root_mean_squared_error: 0.7403
Epoch 377/500
614/614 [=====] - 0s 123us/sample - loss: 0.6835 -
y1_output_loss: 0.1737 - y2_output_loss: 0.5085 -
y1_output_root_mean_squared_error: 0.4187 - y2_output_root_mean_squared_error:
0.7129 - val_loss: 0.7274 - val_y1_output_loss: 0.1727 - val_y2_output_loss:
0.5628 - val_y1_output_root_mean_squared_error: 0.4206 -
val_y2_output_root_mean_squared_error: 0.7420
Epoch 378/500
614/614 [=====] - 0s 131us/sample - loss: 0.6865 -
y1_output_loss: 0.1545 - y2_output_loss: 0.5279 -
y1_output_root_mean_squared_error: 0.3941 - y2_output_root_mean_squared_error:
0.7288 - val_loss: 0.7645 - val_y1_output_loss: 0.1849 - val_y2_output_loss:
0.5896 - val_y1_output_root_mean_squared_error: 0.4329 -
val_y2_output_root_mean_squared_error: 0.7597
Epoch 379/500
614/614 [=====] - 0s 130us/sample - loss: 0.7534 -
y1_output_loss: 0.1956 - y2_output_loss: 0.5513 -
y1_output_root_mean_squared_error: 0.4440 - y2_output_root_mean_squared_error:
0.7458 - val_loss: 0.7321 - val_y1_output_loss: 0.1876 - val_y2_output_loss:
0.5380 - val_y1_output_root_mean_squared_error: 0.4392 -
val_y2_output_root_mean_squared_error: 0.7343
Epoch 380/500

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614/614 [=====] - 0s 123us/sample - loss: 0.7176 -
y1_output_loss: 0.1692 - y2_output_loss: 0.5545 -
y1_output_root_mean_squared_error: 0.4111 - y2_output_root_mean_squared_error:
0.7407 - val_loss: 1.6247 - val_y1_output_loss: 0.3792 - val_y2_output_loss:
1.1990 - val_y1_output_root_mean_squared_error: 0.6206 -
val_y2_output_root_mean_squared_error: 1.1134
Epoch 381/500
614/614 [=====] - 0s 131us/sample - loss: 0.8173 -
y1_output_loss: 0.1949 - y2_output_loss: 0.6185 -
y1_output_root_mean_squared_error: 0.4426 - y2_output_root_mean_squared_error:
0.7883 - val_loss: 1.0753 - val_y1_output_loss: 0.2224 - val_y2_output_loss:
0.8699 - val_y1_output_root_mean_squared_error: 0.4783 -
val_y2_output_root_mean_squared_error: 0.9201
Epoch 382/500
614/614 [=====] - 0s 131us/sample - loss: 0.5727 -
y1_output_loss: 0.1565 - y2_output_loss: 0.4270 -
y1_output_root_mean_squared_error: 0.3936 - y2_output_root_mean_squared_error:
0.6464 - val_loss: 5.9216 - val_y1_output_loss: 1.9485 - val_y2_output_loss:
3.7748 - val_y1_output_root_mean_squared_error: 1.4149 -
val_y2_output_root_mean_squared_error: 1.9798
Epoch 383/500
614/614 [=====] - 0s 119us/sample - loss: 1.1961 -
y1_output_loss: 0.2635 - y2_output_loss: 0.9252 -
y1_output_root_mean_squared_error: 0.5132 - y2_output_root_mean_squared_error:
0.9658 - val_loss: 0.6838 - val_y1_output_loss: 0.1683 - val_y2_output_loss:
0.5216 - val_y1_output_root_mean_squared_error: 0.4122 -
val_y2_output_root_mean_squared_error: 0.7169
Epoch 384/500
614/614 [=====] - 0s 132us/sample - loss: 0.6377 -
y1_output_loss: 0.1536 - y2_output_loss: 0.4800 -
y1_output_root_mean_squared_error: 0.3929 - y2_output_root_mean_squared_error:
0.6952 - val_loss: 0.6908 - val_y1_output_loss: 0.1817 - val_y2_output_loss:
0.5071 - val_y1_output_root_mean_squared_error: 0.4309 -
val_y2_output_root_mean_squared_error: 0.7107
Epoch 385/500
614/614 [=====] - 0s 124us/sample - loss: 0.5462 -
y1_output_loss: 0.1421 - y2_output_loss: 0.4190 -
y1_output_root_mean_squared_error: 0.3782 - y2_output_root_mean_squared_error:
0.6350 - val_loss: 3.0021 - val_y1_output_loss: 0.2812 - val_y2_output_loss:
2.7577 - val_y1_output_root_mean_squared_error: 0.5394 -
val_y2_output_root_mean_squared_error: 1.6465
Epoch 386/500
614/614 [=====] - 0s 128us/sample - loss: 0.6760 -
y1_output_loss: 0.1460 - y2_output_loss: 0.5295 -
y1_output_root_mean_squared_error: 0.3802 - y2_output_root_mean_squared_error:
0.7290 - val_loss: 1.3920 - val_y1_output_loss: 0.3935 - val_y2_output_loss:
0.9796 - val_y1_output_root_mean_squared_error: 0.6374 -
val_y2_output_root_mean_squared_error: 0.9928

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Epoch 387/500

614/614 [=====] - 0s 132us/sample - loss: 1.0420 -
y1_output_loss: 0.2300 - y2_output_loss: 0.8071 -
y1_output_root_mean_squared_error: 0.4797 - y2_output_root_mean_squared_error:
0.9010 - val_loss: 1.1960 - val_y1_output_loss: 0.3746 - val_y2_output_loss:
0.8312 - val_y1_output_root_mean_squared_error: 0.6217 -
val_y2_output_root_mean_squared_error: 0.8997

Epoch 388/500

614/614 [=====] - 0s 125us/sample - loss: 0.5625 -
y1_output_loss: 0.1558 - y2_output_loss: 0.4162 -
y1_output_root_mean_squared_error: 0.3891 - y2_output_root_mean_squared_error:
0.6412 - val_loss: 1.4960 - val_y1_output_loss: 0.7565 - val_y2_output_loss:
0.7013 - val_y1_output_root_mean_squared_error: 0.8846 -
val_y2_output_root_mean_squared_error: 0.8447

Epoch 389/500

614/614 [=====] - 0s 132us/sample - loss: 0.8673 -
y1_output_loss: 0.2377 - y2_output_loss: 0.6292 -
y1_output_root_mean_squared_error: 0.4881 - y2_output_root_mean_squared_error:
0.7932 - val_loss: 2.1113 - val_y1_output_loss: 0.3694 - val_y2_output_loss:
1.7095 - val_y1_output_root_mean_squared_error: 0.6176 -
val_y2_output_root_mean_squared_error: 1.3152

Epoch 390/500

614/614 [=====] - 0s 127us/sample - loss: 0.6092 -
y1_output_loss: 0.1550 - y2_output_loss: 0.4618 -
y1_output_root_mean_squared_error: 0.3945 - y2_output_root_mean_squared_error:
0.6735 - val_loss: 2.1091 - val_y1_output_loss: 0.2790 - val_y2_output_loss:
1.7699 - val_y1_output_root_mean_squared_error: 0.5297 -
val_y2_output_root_mean_squared_error: 1.3522

Epoch 391/500

614/614 [=====] - 0s 133us/sample - loss: 0.5919 -
y1_output_loss: 0.1478 - y2_output_loss: 0.4430 -
y1_output_root_mean_squared_error: 0.3855 - y2_output_root_mean_squared_error:
0.6658 - val_loss: 0.7437 - val_y1_output_loss: 0.1516 - val_y2_output_loss:
0.5810 - val_y1_output_root_mean_squared_error: 0.3903 -
val_y2_output_root_mean_squared_error: 0.7690

Epoch 392/500

614/614 [=====] - 0s 130us/sample - loss: 0.7264 -
y1_output_loss: 0.1781 - y2_output_loss: 0.5433 -
y1_output_root_mean_squared_error: 0.4238 - y2_output_root_mean_squared_error:
0.7394 - val_loss: 0.7632 - val_y1_output_loss: 0.1941 - val_y2_output_loss:
0.5789 - val_y1_output_root_mean_squared_error: 0.4436 -
val_y2_output_root_mean_squared_error: 0.7526

Epoch 393/500

614/614 [=====] - 0s 127us/sample - loss: 0.5810 -
y1_output_loss: 0.1702 - y2_output_loss: 0.4190 -
y1_output_root_mean_squared_error: 0.4087 - y2_output_root_mean_squared_error:
0.6434 - val_loss: 1.0641 - val_y1_output_loss: 0.2697 - val_y2_output_loss:
0.8044 - val_y1_output_root_mean_squared_error: 0.5253 -

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val_y2_output_root_mean_squared_error: 0.8878
Epoch 394/500
614/614 [=====] - 0s 127us/sample - loss: 0.9335 -
y1_output_loss: 0.2186 - y2_output_loss: 0.7140 -
y1_output_root_mean_squared_error: 0.4676 - y2_output_root_mean_squared_error:
0.8455 - val_loss: 1.7290 - val_y1_output_loss: 0.3957 - val_y2_output_loss:
1.2895 - val_y1_output_root_mean_squared_error: 0.6321 -
val_y2_output_root_mean_squared_error: 1.1530
Epoch 395/500
614/614 [=====] - 0s 130us/sample - loss: 0.5901 -
y1_output_loss: 0.1557 - y2_output_loss: 0.4346 -
y1_output_root_mean_squared_error: 0.3960 - y2_output_root_mean_squared_error:
0.6583 - val_loss: 0.8566 - val_y1_output_loss: 0.1678 - val_y2_output_loss:
0.6686 - val_y1_output_root_mean_squared_error: 0.4091 -
val_y2_output_root_mean_squared_error: 0.8302
Epoch 396/500
614/614 [=====] - 0s 132us/sample - loss: 0.7145 -
y1_output_loss: 0.1701 - y2_output_loss: 0.5428 -
y1_output_root_mean_squared_error: 0.4139 - y2_output_root_mean_squared_error:
0.7370 - val_loss: 1.6137 - val_y1_output_loss: 0.2555 - val_y2_output_loss:
1.3111 - val_y1_output_root_mean_squared_error: 0.5018 -
val_y2_output_root_mean_squared_error: 1.1670
Epoch 397/500
614/614 [=====] - 0s 131us/sample - loss: 0.5695 -
y1_output_loss: 0.1619 - y2_output_loss: 0.4083 -
y1_output_root_mean_squared_error: 0.4040 - y2_output_root_mean_squared_error:
0.6374 - val_loss: 0.6448 - val_y1_output_loss: 0.1622 - val_y2_output_loss:
0.4850 - val_y1_output_root_mean_squared_error: 0.4048 -
val_y2_output_root_mean_squared_error: 0.6935
Epoch 398/500
614/614 [=====] - 0s 130us/sample - loss: 0.5814 -
y1_output_loss: 0.1435 - y2_output_loss: 0.4472 -
y1_output_root_mean_squared_error: 0.3789 - y2_output_root_mean_squared_error:
0.6617 - val_loss: 1.7046 - val_y1_output_loss: 0.2153 - val_y2_output_loss:
1.4347 - val_y1_output_root_mean_squared_error: 0.4635 -
val_y2_output_root_mean_squared_error: 1.2205
Epoch 399/500
614/614 [=====] - 0s 127us/sample - loss: 0.5883 -
y1_output_loss: 0.1532 - y2_output_loss: 0.4360 -
y1_output_root_mean_squared_error: 0.3899 - y2_output_root_mean_squared_error:
0.6605 - val_loss: 1.3558 - val_y1_output_loss: 0.2731 - val_y2_output_loss:
1.0854 - val_y1_output_root_mean_squared_error: 0.5297 -
val_y2_output_root_mean_squared_error: 1.0369
Epoch 400/500
614/614 [=====] - 0s 128us/sample - loss: 0.8065 -
y1_output_loss: 0.2047 - y2_output_loss: 0.6067 -
y1_output_root_mean_squared_error: 0.4502 - y2_output_root_mean_squared_error:
0.7771 - val_loss: 1.1643 - val_y1_output_loss: 0.1760 - val_y2_output_loss:

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0.9588 - val_y1_output_root_mean_squared_error: 0.4210 -
 val_y2_output_root_mean_squared_error: 0.9935
 Epoch 401/500
 614/614 [=====] - 0s 130us/sample - loss: 0.5633 -
 y1_output_loss: 0.1530 - y2_output_loss: 0.4162 -
 y1_output_root_mean_squared_error: 0.3876 - y2_output_root_mean_squared_error:
 0.6427 - val_loss: 1.7758 - val_y1_output_loss: 0.1892 - val_y2_output_loss:
 1.6386 - val_y1_output_root_mean_squared_error: 0.4392 -
 val_y2_output_root_mean_squared_error: 1.2581
 Epoch 402/500
 614/614 [=====] - 0s 132us/sample - loss: 0.6514 -
 y1_output_loss: 0.1489 - y2_output_loss: 0.4966 -
 y1_output_root_mean_squared_error: 0.3875 - y2_output_root_mean_squared_error:
 0.7080 - val_loss: 0.6931 - val_y1_output_loss: 0.1758 - val_y2_output_loss:
 0.5325 - val_y1_output_root_mean_squared_error: 0.4220 -
 val_y2_output_root_mean_squared_error: 0.7177
 Epoch 403/500
 614/614 [=====] - 0s 133us/sample - loss: 0.6399 -
 y1_output_loss: 0.1568 - y2_output_loss: 0.4780 -
 y1_output_root_mean_squared_error: 0.3968 - y2_output_root_mean_squared_error:
 0.6946 - val_loss: 0.6415 - val_y1_output_loss: 0.1648 - val_y2_output_loss:
 0.4834 - val_y1_output_root_mean_squared_error: 0.4048 -
 val_y2_output_root_mean_squared_error: 0.6911
 Epoch 404/500
 614/614 [=====] - 0s 125us/sample - loss: 0.4834 -
 y1_output_loss: 0.1287 - y2_output_loss: 0.3536 -
 y1_output_root_mean_squared_error: 0.3596 - y2_output_root_mean_squared_error:
 0.5950 - val_loss: 1.6159 - val_y1_output_loss: 0.1683 - val_y2_output_loss:
 1.4004 - val_y1_output_root_mean_squared_error: 0.4086 -
 val_y2_output_root_mean_squared_error: 1.2037
 Epoch 405/500
 614/614 [=====] - 0s 127us/sample - loss: 0.5388 -
 y1_output_loss: 0.1505 - y2_output_loss: 0.3854 -
 y1_output_root_mean_squared_error: 0.3892 - y2_output_root_mean_squared_error:
 0.6223 - val_loss: 0.9300 - val_y1_output_loss: 0.2377 - val_y2_output_loss:
 0.6868 - val_y1_output_root_mean_squared_error: 0.4934 -
 val_y2_output_root_mean_squared_error: 0.8286
 Epoch 406/500
 614/614 [=====] - 0s 132us/sample - loss: 0.5918 -
 y1_output_loss: 0.1661 - y2_output_loss: 0.4368 -
 y1_output_root_mean_squared_error: 0.4052 - y2_output_root_mean_squared_error:
 0.6539 - val_loss: 1.1815 - val_y1_output_loss: 0.2289 - val_y2_output_loss:
 0.9763 - val_y1_output_root_mean_squared_error: 0.4803 -
 val_y2_output_root_mean_squared_error: 0.9751
 Epoch 407/500
 614/614 [=====] - 0s 136us/sample - loss: 0.5425 -
 y1_output_loss: 0.1423 - y2_output_loss: 0.3976 -
 y1_output_root_mean_squared_error: 0.3784 - y2_output_root_mean_squared_error:

0.6319 - val_loss: 0.7911 - val_y1_output_loss: 0.2038 - val_y2_output_loss:
 0.5790 - val_y1_output_root_mean_squared_error: 0.4572 -
 val_y2_output_root_mean_squared_error: 0.7630
 Epoch 408/500
 614/614 [=====] - 0s 133us/sample - loss: 0.7676 -
 y1_output_loss: 0.1931 - y2_output_loss: 0.6171 -
 y1_output_root_mean_squared_error: 0.4350 - y2_output_root_mean_squared_error:
 0.7605 - val_loss: 11.5551 - val_y1_output_loss: 1.6334 - val_y2_output_loss:
 9.8525 - val_y1_output_root_mean_squared_error: 1.3000 -
 val_y2_output_root_mean_squared_error: 3.1409
 Epoch 409/500
 614/614 [=====] - 0s 129us/sample - loss: 1.2162 -
 y1_output_loss: 0.2559 - y2_output_loss: 0.9566 -
 y1_output_root_mean_squared_error: 0.5047 - y2_output_root_mean_squared_error:
 0.9806 - val_loss: 1.7324 - val_y1_output_loss: 0.4951 - val_y2_output_loss:
 1.2135 - val_y1_output_root_mean_squared_error: 0.7147 -
 val_y2_output_root_mean_squared_error: 1.1053
 Epoch 410/500
 614/614 [=====] - 0s 122us/sample - loss: 0.5641 -
 y1_output_loss: 0.1486 - y2_output_loss: 0.4125 -
 y1_output_root_mean_squared_error: 0.3859 - y2_output_root_mean_squared_error:
 0.6443 - val_loss: 0.7195 - val_y1_output_loss: 0.1775 - val_y2_output_loss:
 0.5279 - val_y1_output_root_mean_squared_error: 0.4195 -
 val_y2_output_root_mean_squared_error: 0.7373
 Epoch 411/500
 614/614 [=====] - 0s 136us/sample - loss: 0.7082 -
 y1_output_loss: 0.1703 - y2_output_loss: 0.5648 -
 y1_output_root_mean_squared_error: 0.4048 - y2_output_root_mean_squared_error:
 0.7378 - val_loss: 2.6623 - val_y1_output_loss: 0.8671 - val_y2_output_loss:
 1.7545 - val_y1_output_root_mean_squared_error: 0.9479 -
 val_y2_output_root_mean_squared_error: 1.3281
 Epoch 412/500
 614/614 [=====] - 0s 128us/sample - loss: 0.5868 -
 y1_output_loss: 0.1728 - y2_output_loss: 0.4098 -
 y1_output_root_mean_squared_error: 0.4165 - y2_output_root_mean_squared_error:
 0.6429 - val_loss: 0.8596 - val_y1_output_loss: 0.2239 - val_y2_output_loss:
 0.6247 - val_y1_output_root_mean_squared_error: 0.4744 -
 val_y2_output_root_mean_squared_error: 0.7966
 Epoch 413/500
 614/614 [=====] - 0s 129us/sample - loss: 0.5114 -
 y1_output_loss: 0.1405 - y2_output_loss: 0.3681 -
 y1_output_root_mean_squared_error: 0.3761 - y2_output_root_mean_squared_error:
 0.6082 - val_loss: 0.6701 - val_y1_output_loss: 0.1946 - val_y2_output_loss:
 0.4776 - val_y1_output_root_mean_squared_error: 0.4426 -
 val_y2_output_root_mean_squared_error: 0.6886
 Epoch 414/500
 614/614 [=====] - 0s 127us/sample - loss: 0.5303 -
 y1_output_loss: 0.1504 - y2_output_loss: 0.3781 -

y1_output_root_mean_squared_error: 0.3876 - y2_output_root_mean_squared_error:
 0.6165 - val_loss: 0.7966 - val_y1_output_loss: 0.2372 - val_y2_output_loss:
 0.5869 - val_y1_output_root_mean_squared_error: 0.4893 -
 val_y2_output_root_mean_squared_error: 0.7464
 Epoch 415/500
 614/614 [=====] - 0s 127us/sample - loss: 0.6001 -
 y1_output_loss: 0.1558 - y2_output_loss: 0.4408 -
 y1_output_root_mean_squared_error: 0.3950 - y2_output_root_mean_squared_error:
 0.6664 - val_loss: 1.1951 - val_y1_output_loss: 0.2628 - val_y2_output_loss:
 0.9051 - val_y1_output_root_mean_squared_error: 0.5101 -
 val_y2_output_root_mean_squared_error: 0.9669
 Epoch 416/500
 614/614 [=====] - 0s 135us/sample - loss: 0.8077 -
 y1_output_loss: 0.1950 - y2_output_loss: 0.6064 -
 y1_output_root_mean_squared_error: 0.4434 - y2_output_root_mean_squared_error:
 0.7817 - val_loss: 0.9032 - val_y1_output_loss: 0.1918 - val_y2_output_loss:
 0.7428 - val_y1_output_root_mean_squared_error: 0.4433 -
 val_y2_output_root_mean_squared_error: 0.8407
 Epoch 417/500
 614/614 [=====] - 0s 129us/sample - loss: 0.8285 -
 y1_output_loss: 0.1988 - y2_output_loss: 0.6351 -
 y1_output_root_mean_squared_error: 0.4457 - y2_output_root_mean_squared_error:
 0.7936 - val_loss: 2.5395 - val_y1_output_loss: 0.4386 - val_y2_output_loss:
 2.0310 - val_y1_output_root_mean_squared_error: 0.6609 -
 val_y2_output_root_mean_squared_error: 1.4501
 Epoch 418/500
 614/614 [=====] - 0s 130us/sample - loss: 0.5990 -
 y1_output_loss: 0.1641 - y2_output_loss: 0.4359 -
 y1_output_root_mean_squared_error: 0.4052 - y2_output_root_mean_squared_error:
 0.6594 - val_loss: 2.1597 - val_y1_output_loss: 0.6466 - val_y2_output_loss:
 1.4808 - val_y1_output_root_mean_squared_error: 0.8137 -
 val_y2_output_root_mean_squared_error: 1.2238
 Epoch 419/500
 614/614 [=====] - 0s 126us/sample - loss: 0.5683 -
 y1_output_loss: 0.1547 - y2_output_loss: 0.4103 -
 y1_output_root_mean_squared_error: 0.3932 - y2_output_root_mean_squared_error:
 0.6432 - val_loss: 0.8845 - val_y1_output_loss: 0.2996 - val_y2_output_loss:
 0.5637 - val_y1_output_root_mean_squared_error: 0.5536 -
 val_y2_output_root_mean_squared_error: 0.7603
 Epoch 420/500
 614/614 [=====] - 0s 128us/sample - loss: 0.9443 -
 y1_output_loss: 0.2719 - y2_output_loss: 0.6683 -
 y1_output_root_mean_squared_error: 0.5233 - y2_output_root_mean_squared_error:
 0.8188 - val_loss: 0.8299 - val_y1_output_loss: 0.1806 - val_y2_output_loss:
 0.6378 - val_y1_output_root_mean_squared_error: 0.4222 -
 val_y2_output_root_mean_squared_error: 0.8072
 Epoch 421/500
 614/614 [=====] - 0s 130us/sample - loss: 0.5399 -

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y1_output_loss: 0.1496 - y2_output_loss: 0.3916 -
y1_output_root_mean_squared_error: 0.3884 - y2_output_root_mean_squared_error:
0.6237 - val_loss: 1.3017 - val_y1_output_loss: 0.2676 - val_y2_output_loss:
1.0413 - val_y1_output_root_mean_squared_error: 0.5201 -
val_y2_output_root_mean_squared_error: 1.0155
Epoch 422/500
614/614 [=====] - 0s 136us/sample - loss: 0.5132 -
y1_output_loss: 0.1476 - y2_output_loss: 0.3620 -
y1_output_root_mean_squared_error: 0.3847 - y2_output_root_mean_squared_error:
0.6043 - val_loss: 0.6385 - val_y1_output_loss: 0.1707 - val_y2_output_loss:
0.4676 - val_y1_output_root_mean_squared_error: 0.4120 -
val_y2_output_root_mean_squared_error: 0.6846
Epoch 423/500
614/614 [=====] - 0s 147us/sample - loss: 0.5730 -
y1_output_loss: 0.1509 - y2_output_loss: 0.4278 -
y1_output_root_mean_squared_error: 0.3838 - y2_output_root_mean_squared_error:
0.6525 - val_loss: 1.8080 - val_y1_output_loss: 0.2566 - val_y2_output_loss:
1.5062 - val_y1_output_root_mean_squared_error: 0.4973 -
val_y2_output_root_mean_squared_error: 1.2493
Epoch 424/500
614/614 [=====] - 0s 132us/sample - loss: 0.6678 -
y1_output_loss: 0.1634 - y2_output_loss: 0.4984 -
y1_output_root_mean_squared_error: 0.4059 - y2_output_root_mean_squared_error:
0.7093 - val_loss: 0.6596 - val_y1_output_loss: 0.1559 - val_y2_output_loss:
0.4938 - val_y1_output_root_mean_squared_error: 0.3923 -
val_y2_output_root_mean_squared_error: 0.7111
Epoch 425/500
614/614 [=====] - 0s 130us/sample - loss: 0.6057 -
y1_output_loss: 0.1550 - y2_output_loss: 0.4469 -
y1_output_root_mean_squared_error: 0.3947 - y2_output_root_mean_squared_error:
0.6707 - val_loss: 0.6311 - val_y1_output_loss: 0.1587 - val_y2_output_loss:
0.4800 - val_y1_output_root_mean_squared_error: 0.3995 -
val_y2_output_root_mean_squared_error: 0.6866
Epoch 426/500
614/614 [=====] - 0s 128us/sample - loss: 0.5017 -
y1_output_loss: 0.1311 - y2_output_loss: 0.3666 -
y1_output_root_mean_squared_error: 0.3634 - y2_output_root_mean_squared_error:
0.6079 - val_loss: 0.6890 - val_y1_output_loss: 0.1860 - val_y2_output_loss:
0.5010 - val_y1_output_root_mean_squared_error: 0.4330 -
val_y2_output_root_mean_squared_error: 0.7082
Epoch 427/500
614/614 [=====] - 0s 136us/sample - loss: 0.5450 -
y1_output_loss: 0.1455 - y2_output_loss: 0.3954 -
y1_output_root_mean_squared_error: 0.3826 - y2_output_root_mean_squared_error:
0.6314 - val_loss: 0.7677 - val_y1_output_loss: 0.1951 - val_y2_output_loss:
0.5581 - val_y1_output_root_mean_squared_error: 0.4454 -
val_y2_output_root_mean_squared_error: 0.7545
Epoch 428/500

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614/614 [=====] - 0s 133us/sample - loss: 0.5509 -
y1_output_loss: 0.1642 - y2_output_loss: 0.3845 -
y1_output_root_mean_squared_error: 0.4068 - y2_output_root_mean_squared_error:
0.6208 - val_loss: 1.4076 - val_y1_output_loss: 0.2394 - val_y2_output_loss:
1.1618 - val_y1_output_root_mean_squared_error: 0.4934 -
val_y2_output_root_mean_squared_error: 1.0790
Epoch 429/500
614/614 [=====] - 0s 135us/sample - loss: 0.6308 -
y1_output_loss: 0.1508 - y2_output_loss: 0.4793 -
y1_output_root_mean_squared_error: 0.3880 - y2_output_root_mean_squared_error:
0.6930 - val_loss: 0.7824 - val_y1_output_loss: 0.2216 - val_y2_output_loss:
0.5493 - val_y1_output_root_mean_squared_error: 0.4771 -
val_y2_output_root_mean_squared_error: 0.7448
Epoch 430/500
614/614 [=====] - 0s 128us/sample - loss: 0.6385 -
y1_output_loss: 0.1710 - y2_output_loss: 0.4642 -
y1_output_root_mean_squared_error: 0.4121 - y2_output_root_mean_squared_error:
0.6846 - val_loss: 0.8544 - val_y1_output_loss: 0.1834 - val_y2_output_loss:
0.6516 - val_y1_output_root_mean_squared_error: 0.4293 -
val_y2_output_root_mean_squared_error: 0.8186
Epoch 431/500
614/614 [=====] - 0s 128us/sample - loss: 0.4535 -
y1_output_loss: 0.1339 - y2_output_loss: 0.3247 -
y1_output_root_mean_squared_error: 0.3656 - y2_output_root_mean_squared_error:
0.5655 - val_loss: 0.6206 - val_y1_output_loss: 0.1595 - val_y2_output_loss:
0.4545 - val_y1_output_root_mean_squared_error: 0.4013 -
val_y2_output_root_mean_squared_error: 0.6779
Epoch 432/500
614/614 [=====] - 0s 128us/sample - loss: 0.4625 -
y1_output_loss: 0.1311 - y2_output_loss: 0.3342 -
y1_output_root_mean_squared_error: 0.3583 - y2_output_root_mean_squared_error:
0.5780 - val_loss: 1.1585 - val_y1_output_loss: 0.2064 - val_y2_output_loss:
0.9203 - val_y1_output_root_mean_squared_error: 0.4518 -
val_y2_output_root_mean_squared_error: 0.9769
Epoch 433/500
614/614 [=====] - 0s 132us/sample - loss: 0.4703 -
y1_output_loss: 0.1222 - y2_output_loss: 0.3473 -
y1_output_root_mean_squared_error: 0.3510 - y2_output_root_mean_squared_error:
0.5891 - val_loss: 1.4363 - val_y1_output_loss: 0.1855 - val_y2_output_loss:
1.2375 - val_y1_output_root_mean_squared_error: 0.4319 -
val_y2_output_root_mean_squared_error: 1.1179
Epoch 434/500
614/614 [=====] - 0s 131us/sample - loss: 0.7387 -
y1_output_loss: 0.1797 - y2_output_loss: 0.5599 -
y1_output_root_mean_squared_error: 0.4239 - y2_output_root_mean_squared_error:
0.7477 - val_loss: 1.5725 - val_y1_output_loss: 0.2812 - val_y2_output_loss:
1.2839 - val_y1_output_root_mean_squared_error: 0.5377 -
val_y2_output_root_mean_squared_error: 1.1329

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Epoch 435/500
614/614 [=====] - 0s 126us/sample - loss: 0.8178 -
y1_output_loss: 0.1932 - y2_output_loss: 0.6217 -
y1_output_root_mean_squared_error: 0.4408 - y2_output_root_mean_squared_error:
0.7896 - val_loss: 0.6110 - val_y1_output_loss: 0.1541 - val_y2_output_loss:
0.4591 - val_y1_output_root_mean_squared_error: 0.3935 -
val_y2_output_root_mean_squared_error: 0.6754
Epoch 436/500
614/614 [=====] - 0s 128us/sample - loss: 0.5992 -
y1_output_loss: 0.1730 - y2_output_loss: 0.4220 -
y1_output_root_mean_squared_error: 0.4177 - y2_output_root_mean_squared_error:
0.6517 - val_loss: 0.9386 - val_y1_output_loss: 0.1628 - val_y2_output_loss:
0.7567 - val_y1_output_root_mean_squared_error: 0.4004 -
val_y2_output_root_mean_squared_error: 0.8822
Epoch 437/500
614/614 [=====] - 0s 126us/sample - loss: 0.6183 -
y1_output_loss: 0.1638 - y2_output_loss: 0.4527 -
y1_output_root_mean_squared_error: 0.4048 - y2_output_root_mean_squared_error:
0.6741 - val_loss: 1.4544 - val_y1_output_loss: 0.4545 - val_y2_output_loss:
0.9624 - val_y1_output_root_mean_squared_error: 0.6772 -
val_y2_output_root_mean_squared_error: 0.9979
Epoch 438/500
614/614 [=====] - 0s 124us/sample - loss: 0.5496 -
y1_output_loss: 0.1519 - y2_output_loss: 0.4007 -
y1_output_root_mean_squared_error: 0.3867 - y2_output_root_mean_squared_error:
0.6325 - val_loss: 2.0165 - val_y1_output_loss: 0.3191 - val_y2_output_loss:
1.6455 - val_y1_output_root_mean_squared_error: 0.5586 -
val_y2_output_root_mean_squared_error: 1.3055
Epoch 439/500
614/614 [=====] - 0s 135us/sample - loss: 0.5100 -
y1_output_loss: 0.1354 - y2_output_loss: 0.3742 -
y1_output_root_mean_squared_error: 0.3671 - y2_output_root_mean_squared_error:
0.6126 - val_loss: 1.5233 - val_y1_output_loss: 0.2333 - val_y2_output_loss:
1.2920 - val_y1_output_root_mean_squared_error: 0.4904 -
val_y2_output_root_mean_squared_error: 1.1326
Epoch 440/500
614/614 [=====] - 0s 129us/sample - loss: 0.5803 -
y1_output_loss: 0.1460 - y2_output_loss: 0.4302 -
y1_output_root_mean_squared_error: 0.3826 - y2_output_root_mean_squared_error:
0.6587 - val_loss: 0.6321 - val_y1_output_loss: 0.1610 - val_y2_output_loss:
0.4785 - val_y1_output_root_mean_squared_error: 0.3998 -
val_y2_output_root_mean_squared_error: 0.6872
Epoch 441/500
614/614 [=====] - 0s 132us/sample - loss: 0.8563 -
y1_output_loss: 0.2293 - y2_output_loss: 0.7424 -
y1_output_root_mean_squared_error: 0.4269 - y2_output_root_mean_squared_error:
0.8210 - val_loss: 2.7462 - val_y1_output_loss: 1.3380 - val_y2_output_loss:
1.3272 - val_y1_output_root_mean_squared_error: 1.1701 -

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val_y2_output_root_mean_squared_error: 1.1735
Epoch 442/500
614/614 [=====] - 0s 127us/sample - loss: 0.6925 -
y1_output_loss: 0.2478 - y2_output_loss: 0.4480 -
y1_output_root_mean_squared_error: 0.4995 - y2_output_root_mean_squared_error:
0.6655 - val_loss: 1.0473 - val_y1_output_loss: 0.2332 - val_y2_output_loss:
0.7972 - val_y1_output_root_mean_squared_error: 0.4841 -
val_y2_output_root_mean_squared_error: 0.9016
Epoch 443/500
614/614 [=====] - 0s 123us/sample - loss: 0.6528 -
y1_output_loss: 0.1563 - y2_output_loss: 0.4922 -
y1_output_root_mean_squared_error: 0.3969 - y2_output_root_mean_squared_error:
0.7037 - val_loss: 0.5584 - val_y1_output_loss: 0.1554 - val_y2_output_loss:
0.4034 - val_y1_output_root_mean_squared_error: 0.3946 -
val_y2_output_root_mean_squared_error: 0.6346
Epoch 444/500
614/614 [=====] - 0s 131us/sample - loss: 0.5065 -
y1_output_loss: 0.1357 - y2_output_loss: 0.3765 -
y1_output_root_mean_squared_error: 0.3652 - y2_output_root_mean_squared_error:
0.6109 - val_loss: 1.5818 - val_y1_output_loss: 0.4803 - val_y2_output_loss:
1.0896 - val_y1_output_root_mean_squared_error: 0.7057 -
val_y2_output_root_mean_squared_error: 1.0410
Epoch 445/500
614/614 [=====] - 0s 129us/sample - loss: 0.6162 -
y1_output_loss: 0.1521 - y2_output_loss: 0.4619 -
y1_output_root_mean_squared_error: 0.3887 - y2_output_root_mean_squared_error:
0.6820 - val_loss: 0.7082 - val_y1_output_loss: 0.1975 - val_y2_output_loss:
0.5152 - val_y1_output_root_mean_squared_error: 0.4443 -
val_y2_output_root_mean_squared_error: 0.7147
Epoch 446/500
614/614 [=====] - 0s 125us/sample - loss: 0.5320 -
y1_output_loss: 0.1388 - y2_output_loss: 0.3969 -
y1_output_root_mean_squared_error: 0.3713 - y2_output_root_mean_squared_error:
0.6278 - val_loss: 1.2145 - val_y1_output_loss: 0.3734 - val_y2_output_loss:
0.8186 - val_y1_output_root_mean_squared_error: 0.6173 -
val_y2_output_root_mean_squared_error: 0.9129
Epoch 447/500
614/614 [=====] - 0s 128us/sample - loss: 0.5543 -
y1_output_loss: 0.1618 - y2_output_loss: 0.3913 -
y1_output_root_mean_squared_error: 0.4039 - y2_output_root_mean_squared_error:
0.6255 - val_loss: 1.1806 - val_y1_output_loss: 0.1970 - val_y2_output_loss:
0.9514 - val_y1_output_root_mean_squared_error: 0.4431 -
val_y2_output_root_mean_squared_error: 0.9921
Epoch 448/500
614/614 [=====] - 0s 128us/sample - loss: 0.4760 -
y1_output_loss: 0.1333 - y2_output_loss: 0.3426 -
y1_output_root_mean_squared_error: 0.3646 - y2_output_root_mean_squared_error:
0.5857 - val_loss: 0.7946 - val_y1_output_loss: 0.1710 - val_y2_output_loss:

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0.6133 - val_y1_output_root_mean_squared_error: 0.4152 -
 val_y2_output_root_mean_squared_error: 0.7888
 Epoch 449/500
 614/614 [=====] - 0s 121us/sample - loss: 0.5679 -
 y1_output_loss: 0.1417 - y2_output_loss: 0.4223 -
 y1_output_root_mean_squared_error: 0.3782 - y2_output_root_mean_squared_error:
 0.6518 - val_loss: 0.6428 - val_y1_output_loss: 0.2109 - val_y2_output_loss:
 0.4278 - val_y1_output_root_mean_squared_error: 0.4641 -
 val_y2_output_root_mean_squared_error: 0.6538
 Epoch 450/500
 614/614 [=====] - 0s 132us/sample - loss: 0.7871 -
 y1_output_loss: 0.1841 - y2_output_loss: 0.6004 -
 y1_output_root_mean_squared_error: 0.4297 - y2_output_root_mean_squared_error:
 0.7762 - val_loss: 0.8700 - val_y1_output_loss: 0.1878 - val_y2_output_loss:
 0.6639 - val_y1_output_root_mean_squared_error: 0.4334 -
 val_y2_output_root_mean_squared_error: 0.8260
 Epoch 451/500
 614/614 [=====] - 0s 122us/sample - loss: 0.4474 -
 y1_output_loss: 0.1366 - y2_output_loss: 0.3074 -
 y1_output_root_mean_squared_error: 0.3707 - y2_output_root_mean_squared_error:
 0.5567 - val_loss: 0.7388 - val_y1_output_loss: 0.1897 - val_y2_output_loss:
 0.5346 - val_y1_output_root_mean_squared_error: 0.4377 -
 val_y2_output_root_mean_squared_error: 0.7397
 Epoch 452/500
 614/614 [=====] - 0s 130us/sample - loss: 0.6626 -
 y1_output_loss: 0.1822 - y2_output_loss: 0.4834 -
 y1_output_root_mean_squared_error: 0.4269 - y2_output_root_mean_squared_error:
 0.6931 - val_loss: 0.9614 - val_y1_output_loss: 0.2476 - val_y2_output_loss:
 0.6945 - val_y1_output_root_mean_squared_error: 0.5001 -
 val_y2_output_root_mean_squared_error: 0.8434
 Epoch 453/500
 614/614 [=====] - 0s 131us/sample - loss: 1.1811 -
 y1_output_loss: 0.2544 - y2_output_loss: 0.9183 -
 y1_output_root_mean_squared_error: 0.5051 - y2_output_root_mean_squared_error:
 0.9622 - val_loss: 0.6581 - val_y1_output_loss: 0.1632 - val_y2_output_loss:
 0.4928 - val_y1_output_root_mean_squared_error: 0.4078 -
 val_y2_output_root_mean_squared_error: 0.7013
 Epoch 454/500
 614/614 [=====] - 0s 126us/sample - loss: 0.6412 -
 y1_output_loss: 0.1752 - y2_output_loss: 0.4612 -
 y1_output_root_mean_squared_error: 0.4194 - y2_output_root_mean_squared_error:
 0.6822 - val_loss: 0.6677 - val_y1_output_loss: 0.1726 - val_y2_output_loss:
 0.4854 - val_y1_output_root_mean_squared_error: 0.4163 -
 val_y2_output_root_mean_squared_error: 0.7031
 Epoch 455/500
 614/614 [=====] - 0s 134us/sample - loss: 0.5477 -
 y1_output_loss: 0.1473 - y2_output_loss: 0.3967 -
 y1_output_root_mean_squared_error: 0.3843 - y2_output_root_mean_squared_error:

0.6325 - val_loss: 0.6983 - val_y1_output_loss: 0.1879 - val_y2_output_loss:
 0.5021 - val_y1_output_root_mean_squared_error: 0.4332 -
 val_y2_output_root_mean_squared_error: 0.7145
 Epoch 456/500
 614/614 [=====] - 0s 124us/sample - loss: 0.6564 -
 y1_output_loss: 0.1717 - y2_output_loss: 0.4849 -
 y1_output_root_mean_squared_error: 0.4155 - y2_output_root_mean_squared_error:
 0.6956 - val_loss: 0.8703 - val_y1_output_loss: 0.1916 - val_y2_output_loss:
 0.6876 - val_y1_output_root_mean_squared_error: 0.4435 -
 val_y2_output_root_mean_squared_error: 0.8208
 Epoch 457/500
 614/614 [=====] - 0s 134us/sample - loss: 0.5329 -
 y1_output_loss: 0.1419 - y2_output_loss: 0.3934 -
 y1_output_root_mean_squared_error: 0.3722 - y2_output_root_mean_squared_error:
 0.6280 - val_loss: 0.8659 - val_y1_output_loss: 0.2782 - val_y2_output_loss:
 0.5776 - val_y1_output_root_mean_squared_error: 0.5222 -
 val_y2_output_root_mean_squared_error: 0.7702
 Epoch 458/500
 614/614 [=====] - 0s 131us/sample - loss: 0.6111 -
 y1_output_loss: 0.1569 - y2_output_loss: 0.4507 -
 y1_output_root_mean_squared_error: 0.3977 - y2_output_root_mean_squared_error:
 0.6730 - val_loss: 0.6238 - val_y1_output_loss: 0.1505 - val_y2_output_loss:
 0.4635 - val_y1_output_root_mean_squared_error: 0.3867 -
 val_y2_output_root_mean_squared_error: 0.6887
 Epoch 459/500
 614/614 [=====] - 0s 131us/sample - loss: 0.5166 -
 y1_output_loss: 0.1334 - y2_output_loss: 0.3824 -
 y1_output_root_mean_squared_error: 0.3643 - y2_output_root_mean_squared_error:
 0.6196 - val_loss: 0.7053 - val_y1_output_loss: 0.2366 - val_y2_output_loss:
 0.4838 - val_y1_output_root_mean_squared_error: 0.4866 -
 val_y2_output_root_mean_squared_error: 0.6845
 Epoch 460/500
 614/614 [=====] - 0s 129us/sample - loss: 0.5212 -
 y1_output_loss: 0.1497 - y2_output_loss: 0.3694 -
 y1_output_root_mean_squared_error: 0.3875 - y2_output_root_mean_squared_error:
 0.6091 - val_loss: 0.6238 - val_y1_output_loss: 0.1823 - val_y2_output_loss:
 0.4328 - val_y1_output_root_mean_squared_error: 0.4271 -
 val_y2_output_root_mean_squared_error: 0.6644
 Epoch 461/500
 614/614 [=====] - 0s 129us/sample - loss: 0.5150 -
 y1_output_loss: 0.1274 - y2_output_loss: 0.3834 -
 y1_output_root_mean_squared_error: 0.3583 - y2_output_root_mean_squared_error:
 0.6218 - val_loss: 0.7265 - val_y1_output_loss: 0.1737 - val_y2_output_loss:
 0.5647 - val_y1_output_root_mean_squared_error: 0.4189 -
 val_y2_output_root_mean_squared_error: 0.7423
 Epoch 462/500
 614/614 [=====] - 0s 133us/sample - loss: 0.4362 -
 y1_output_loss: 0.1309 - y2_output_loss: 0.3105 -

y1_output_root_mean_squared_error: 0.3595 - y2_output_root_mean_squared_error:
 0.5541 - val_loss: 1.6556 - val_y1_output_loss: 0.3262 - val_y2_output_loss:
 1.3490 - val_y1_output_root_mean_squared_error: 0.5812 -
 val_y2_output_root_mean_squared_error: 1.1479
 Epoch 463/500
 614/614 [=====] - 0s 131us/sample - loss: 0.4603 -
 y1_output_loss: 0.1226 - y2_output_loss: 0.3365 -
 y1_output_root_mean_squared_error: 0.3502 - y2_output_root_mean_squared_error:
 0.5810 - val_loss: 0.6695 - val_y1_output_loss: 0.1447 - val_y2_output_loss:
 0.5316 - val_y1_output_root_mean_squared_error: 0.3833 -
 val_y2_output_root_mean_squared_error: 0.7229
 Epoch 464/500
 614/614 [=====] - 0s 132us/sample - loss: 0.4808 -
 y1_output_loss: 0.1143 - y2_output_loss: 0.3663 -
 y1_output_root_mean_squared_error: 0.3369 - y2_output_root_mean_squared_error:
 0.6060 - val_loss: 0.9258 - val_y1_output_loss: 0.2159 - val_y2_output_loss:
 0.6874 - val_y1_output_root_mean_squared_error: 0.4622 -
 val_y2_output_root_mean_squared_error: 0.8439
 Epoch 465/500
 614/614 [=====] - 0s 124us/sample - loss: 0.3976 -
 y1_output_loss: 0.1230 - y2_output_loss: 0.2771 -
 y1_output_root_mean_squared_error: 0.3485 - y2_output_root_mean_squared_error:
 0.5255 - val_loss: 0.7356 - val_y1_output_loss: 0.2298 - val_y2_output_loss:
 0.5133 - val_y1_output_root_mean_squared_error: 0.4862 -
 val_y2_output_root_mean_squared_error: 0.7066
 Epoch 466/500
 614/614 [=====] - 0s 131us/sample - loss: 0.6072 -
 y1_output_loss: 0.1658 - y2_output_loss: 0.4527 -
 y1_output_root_mean_squared_error: 0.4079 - y2_output_root_mean_squared_error:
 0.6639 - val_loss: 2.1226 - val_y1_output_loss: 0.1713 - val_y2_output_loss:
 1.8913 - val_y1_output_root_mean_squared_error: 0.4169 -
 val_y2_output_root_mean_squared_error: 1.3960
 Epoch 467/500
 614/614 [=====] - 0s 131us/sample - loss: 0.5782 -
 y1_output_loss: 0.1699 - y2_output_loss: 0.4090 -
 y1_output_root_mean_squared_error: 0.4115 - y2_output_root_mean_squared_error:
 0.6394 - val_loss: 0.6585 - val_y1_output_loss: 0.1752 - val_y2_output_loss:
 0.4966 - val_y1_output_root_mean_squared_error: 0.4240 -
 val_y2_output_root_mean_squared_error: 0.6918
 Epoch 468/500
 614/614 [=====] - 0s 130us/sample - loss: 0.4276 -
 y1_output_loss: 0.1229 - y2_output_loss: 0.3009 -
 y1_output_root_mean_squared_error: 0.3519 - y2_output_root_mean_squared_error:
 0.5511 - val_loss: 0.5635 - val_y1_output_loss: 0.1530 - val_y2_output_loss:
 0.4074 - val_y1_output_root_mean_squared_error: 0.3912 -
 val_y2_output_root_mean_squared_error: 0.6407
 Epoch 469/500
 614/614 [=====] - 0s 131us/sample - loss: 0.4766 -


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y1_output_loss: 0.1364 - y2_output_loss: 0.3426 -
y1_output_root_mean_squared_error: 0.3678 - y2_output_root_mean_squared_error:
0.5842 - val_loss: 1.4598 - val_y1_output_loss: 0.3240 - val_y2_output_loss:
1.0961 - val_y1_output_root_mean_squared_error: 0.5691 -
val_y2_output_root_mean_squared_error: 1.0658
Epoch 470/500
614/614 [=====] - 0s 125us/sample - loss: 0.7003 -
y1_output_loss: 0.1596 - y2_output_loss: 0.5367 -
y1_output_root_mean_squared_error: 0.4008 - y2_output_root_mean_squared_error:
0.7347 - val_loss: 0.8507 - val_y1_output_loss: 0.1751 - val_y2_output_loss:
0.6562 - val_y1_output_root_mean_squared_error: 0.4180 -
val_y2_output_root_mean_squared_error: 0.8222
Epoch 471/500
614/614 [=====] - 0s 128us/sample - loss: 0.6011 -
y1_output_loss: 0.1559 - y2_output_loss: 0.4419 -
y1_output_root_mean_squared_error: 0.3948 - y2_output_root_mean_squared_error:
0.6673 - val_loss: 0.8420 - val_y1_output_loss: 0.1537 - val_y2_output_loss:
0.6657 - val_y1_output_root_mean_squared_error: 0.3933 -
val_y2_output_root_mean_squared_error: 0.8291
Epoch 472/500
614/614 [=====] - 0s 131us/sample - loss: 0.5121 -
y1_output_loss: 0.1306 - y2_output_loss: 0.3852 -
y1_output_root_mean_squared_error: 0.3620 - y2_output_root_mean_squared_error:
0.6173 - val_loss: 2.6431 - val_y1_output_loss: 0.2738 - val_y2_output_loss:
2.3397 - val_y1_output_root_mean_squared_error: 0.5309 -
val_y2_output_root_mean_squared_error: 1.5366
Epoch 473/500
614/614 [=====] - 0s 129us/sample - loss: 0.4890 -
y1_output_loss: 0.1329 - y2_output_loss: 0.3543 -
y1_output_root_mean_squared_error: 0.3649 - y2_output_root_mean_squared_error:
0.5965 - val_loss: 1.0199 - val_y1_output_loss: 0.1763 - val_y2_output_loss:
0.8176 - val_y1_output_root_mean_squared_error: 0.4161 -
val_y2_output_root_mean_squared_error: 0.9202
Epoch 474/500
614/614 [=====] - 0s 127us/sample - loss: 0.4905 -
y1_output_loss: 0.1387 - y2_output_loss: 0.3503 -
y1_output_root_mean_squared_error: 0.3725 - y2_output_root_mean_squared_error:
0.5931 - val_loss: 1.1284 - val_y1_output_loss: 0.2237 - val_y2_output_loss:
0.9151 - val_y1_output_root_mean_squared_error: 0.4810 -
val_y2_output_root_mean_squared_error: 0.9471
Epoch 475/500
614/614 [=====] - 0s 124us/sample - loss: 0.4428 -
y1_output_loss: 0.1320 - y2_output_loss: 0.3125 -
y1_output_root_mean_squared_error: 0.3641 - y2_output_root_mean_squared_error:
0.5570 - val_loss: 1.4396 - val_y1_output_loss: 0.1994 - val_y2_output_loss:
1.1966 - val_y1_output_root_mean_squared_error: 0.4447 -
val_y2_output_root_mean_squared_error: 1.1144
Epoch 476/500

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614/614 [=====] - 0s 121us/sample - loss: 0.3810 -
y1_output_loss: 0.1161 - y2_output_loss: 0.2629 -
y1_output_root_mean_squared_error: 0.3418 - y2_output_root_mean_squared_error:
0.5140 - val_loss: 0.6759 - val_y1_output_loss: 0.1671 - val_y2_output_loss:
0.5056 - val_y1_output_root_mean_squared_error: 0.4107 -
val_y2_output_root_mean_squared_error: 0.7122
Epoch 477/500
614/614 [=====] - 0s 130us/sample - loss: 0.4959 -
y1_output_loss: 0.1217 - y2_output_loss: 0.3732 -
y1_output_root_mean_squared_error: 0.3503 - y2_output_root_mean_squared_error:
0.6109 - val_loss: 0.6480 - val_y1_output_loss: 0.1352 - val_y2_output_loss:
0.5105 - val_y1_output_root_mean_squared_error: 0.3695 -
val_y2_output_root_mean_squared_error: 0.7151
Epoch 478/500
614/614 [=====] - 0s 132us/sample - loss: 0.4586 -
y1_output_loss: 0.1368 - y2_output_loss: 0.3207 -
y1_output_root_mean_squared_error: 0.3711 - y2_output_root_mean_squared_error:
0.5664 - val_loss: 1.0660 - val_y1_output_loss: 0.2138 - val_y2_output_loss:
0.8410 - val_y1_output_root_mean_squared_error: 0.4637 -
val_y2_output_root_mean_squared_error: 0.9225
Epoch 479/500
614/614 [=====] - 0s 127us/sample - loss: 0.5457 -
y1_output_loss: 0.1557 - y2_output_loss: 0.3934 -
y1_output_root_mean_squared_error: 0.3932 - y2_output_root_mean_squared_error:
0.6254 - val_loss: 0.9371 - val_y1_output_loss: 0.2003 - val_y2_output_loss:
0.7529 - val_y1_output_root_mean_squared_error: 0.4504 -
val_y2_output_root_mean_squared_error: 0.8569
Epoch 480/500
614/614 [=====] - 0s 124us/sample - loss: 0.4971 -
y1_output_loss: 0.1387 - y2_output_loss: 0.3582 -
y1_output_root_mean_squared_error: 0.3740 - y2_output_root_mean_squared_error:
0.5976 - val_loss: 0.8475 - val_y1_output_loss: 0.1665 - val_y2_output_loss:
0.6664 - val_y1_output_root_mean_squared_error: 0.4065 -
val_y2_output_root_mean_squared_error: 0.8259
Epoch 481/500
614/614 [=====] - 0s 124us/sample - loss: 0.4988 -
y1_output_loss: 0.1448 - y2_output_loss: 0.3512 -
y1_output_root_mean_squared_error: 0.3814 - y2_output_root_mean_squared_error:
0.5944 - val_loss: 0.7327 - val_y1_output_loss: 0.1906 - val_y2_output_loss:
0.5251 - val_y1_output_root_mean_squared_error: 0.4368 -
val_y2_output_root_mean_squared_error: 0.7361
Epoch 482/500
614/614 [=====] - 0s 127us/sample - loss: 0.4303 -
y1_output_loss: 0.1250 - y2_output_loss: 0.3074 -
y1_output_root_mean_squared_error: 0.3547 - y2_output_root_mean_squared_error:
0.5518 - val_loss: 2.2184 - val_y1_output_loss: 0.3055 - val_y2_output_loss:
1.8483 - val_y1_output_root_mean_squared_error: 0.5502 -
val_y2_output_root_mean_squared_error: 1.3841

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Epoch 483/500

614/614 [=====] - 0s 133us/sample - loss: 0.4442 -
y1_output_loss: 0.1217 - y2_output_loss: 0.3226 -
y1_output_root_mean_squared_error: 0.3449 - y2_output_root_mean_squared_error:
0.5703 - val_loss: 1.2846 - val_y1_output_loss: 0.6778 - val_y2_output_loss:
0.5870 - val_y1_output_root_mean_squared_error: 0.8382 -
val_y2_output_root_mean_squared_error: 0.7629

Epoch 484/500

614/614 [=====] - 0s 130us/sample - loss: 0.5893 -
y1_output_loss: 0.1571 - y2_output_loss: 0.4324 -
y1_output_root_mean_squared_error: 0.3976 - y2_output_root_mean_squared_error:
0.6566 - val_loss: 1.0364 - val_y1_output_loss: 0.1723 - val_y2_output_loss:
0.8400 - val_y1_output_root_mean_squared_error: 0.4145 -
val_y2_output_root_mean_squared_error: 0.9299

Epoch 485/500

614/614 [=====] - 0s 123us/sample - loss: 0.7208 -
y1_output_loss: 0.1432 - y2_output_loss: 0.5863 -
y1_output_root_mean_squared_error: 0.3743 - y2_output_root_mean_squared_error:
0.7621 - val_loss: 1.9318 - val_y1_output_loss: 0.7171 - val_y2_output_loss:
1.1759 - val_y1_output_root_mean_squared_error: 0.8617 -
val_y2_output_root_mean_squared_error: 1.0905

Epoch 486/500

614/614 [=====] - 0s 125us/sample - loss: 0.5669 -
y1_output_loss: 0.1555 - y2_output_loss: 0.4078 -
y1_output_root_mean_squared_error: 0.3950 - y2_output_root_mean_squared_error:
0.6410 - val_loss: 0.5721 - val_y1_output_loss: 0.1655 - val_y2_output_loss:
0.3981 - val_y1_output_root_mean_squared_error: 0.4074 -
val_y2_output_root_mean_squared_error: 0.6373

Epoch 487/500

614/614 [=====] - 0s 128us/sample - loss: 0.4327 -
y1_output_loss: 0.1229 - y2_output_loss: 0.3074 -
y1_output_root_mean_squared_error: 0.3502 - y2_output_root_mean_squared_error:
0.5568 - val_loss: 0.5976 - val_y1_output_loss: 0.1705 - val_y2_output_loss:
0.4184 - val_y1_output_root_mean_squared_error: 0.4138 -
val_y2_output_root_mean_squared_error: 0.6530

Epoch 488/500

614/614 [=====] - 0s 131us/sample - loss: 0.4099 -
y1_output_loss: 0.1222 - y2_output_loss: 0.2931 -
y1_output_root_mean_squared_error: 0.3485 - y2_output_root_mean_squared_error:
0.5371 - val_loss: 1.9753 - val_y1_output_loss: 0.3387 - val_y2_output_loss:
1.6193 - val_y1_output_root_mean_squared_error: 0.5915 -
val_y2_output_root_mean_squared_error: 1.2749

Epoch 489/500

614/614 [=====] - 0s 128us/sample - loss: 0.5724 -
y1_output_loss: 0.1456 - y2_output_loss: 0.4254 -
y1_output_root_mean_squared_error: 0.3821 - y2_output_root_mean_squared_error:
0.6530 - val_loss: 0.7527 - val_y1_output_loss: 0.1734 - val_y2_output_loss:
0.5639 - val_y1_output_root_mean_squared_error: 0.4214 -

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val_y2_output_root_mean_squared_error: 0.7583
Epoch 490/500
614/614 [=====] - 0s 121us/sample - loss: 0.5530 -
y1_output_loss: 0.1470 - y2_output_loss: 0.4236 -
y1_output_root_mean_squared_error: 0.3842 - y2_output_root_mean_squared_error:
0.6367 - val_loss: 3.9308 - val_y1_output_loss: 0.3113 - val_y2_output_loss:
3.6863 - val_y1_output_root_mean_squared_error: 0.5682 -
val_y2_output_root_mean_squared_error: 1.8995
Epoch 491/500
614/614 [=====] - 0s 126us/sample - loss: 0.7319 -
y1_output_loss: 0.1650 - y2_output_loss: 0.5626 -
y1_output_root_mean_squared_error: 0.4074 - y2_output_root_mean_squared_error:
0.7523 - val_loss: 0.7198 - val_y1_output_loss: 0.1783 - val_y2_output_loss:
0.5349 - val_y1_output_root_mean_squared_error: 0.4239 -
val_y2_output_root_mean_squared_error: 0.7349
Epoch 492/500
614/614 [=====] - 0s 128us/sample - loss: 0.3564 -
y1_output_loss: 0.1171 - y2_output_loss: 0.2392 -
y1_output_root_mean_squared_error: 0.3420 - y2_output_root_mean_squared_error:
0.4894 - val_loss: 0.7012 - val_y1_output_loss: 0.1821 - val_y2_output_loss:
0.5132 - val_y1_output_root_mean_squared_error: 0.4286 -
val_y2_output_root_mean_squared_error: 0.7194
Epoch 493/500
614/614 [=====] - 0s 133us/sample - loss: 0.4795 -
y1_output_loss: 0.1288 - y2_output_loss: 0.3500 -
y1_output_root_mean_squared_error: 0.3577 - y2_output_root_mean_squared_error:
0.5930 - val_loss: 0.7353 - val_y1_output_loss: 0.2451 - val_y2_output_loss:
0.4733 - val_y1_output_root_mean_squared_error: 0.5008 -
val_y2_output_root_mean_squared_error: 0.6960
Epoch 494/500
614/614 [=====] - 0s 132us/sample - loss: 0.3836 -
y1_output_loss: 0.1261 - y2_output_loss: 0.2618 -
y1_output_root_mean_squared_error: 0.3554 - y2_output_root_mean_squared_error:
0.5073 - val_loss: 1.0474 - val_y1_output_loss: 0.2222 - val_y2_output_loss:
0.8027 - val_y1_output_root_mean_squared_error: 0.4692 -
val_y2_output_root_mean_squared_error: 0.9095
Epoch 495/500
614/614 [=====] - 0s 122us/sample - loss: 0.5001 -
y1_output_loss: 0.1537 - y2_output_loss: 0.3482 -
y1_output_root_mean_squared_error: 0.3918 - y2_output_root_mean_squared_error:
0.5887 - val_loss: 0.9275 - val_y1_output_loss: 0.2062 - val_y2_output_loss:
0.6999 - val_y1_output_root_mean_squared_error: 0.4541 -
val_y2_output_root_mean_squared_error: 0.8493
Epoch 496/500
614/614 [=====] - 0s 127us/sample - loss: 0.3895 -
y1_output_loss: 0.1145 - y2_output_loss: 0.2809 -
y1_output_root_mean_squared_error: 0.3387 - y2_output_root_mean_squared_error:
0.5241 - val_loss: 2.3537 - val_y1_output_loss: 0.4486 - val_y2_output_loss:

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1.9399 - val_y1_output_root_mean_squared_error: 0.6752 -
val_y2_output_root_mean_squared_error: 1.3776
Epoch 497/500
614/614 [=====] - 0s 127us/sample - loss: 0.4245 -
y1_output_loss: 0.1270 - y2_output_loss: 0.2992 -
y1_output_root_mean_squared_error: 0.3550 - y2_output_root_mean_squared_error:
0.5463 - val_loss: 1.5767 - val_y1_output_loss: 0.4213 - val_y2_output_loss:
1.1109 - val_y1_output_root_mean_squared_error: 0.6530 -
val_y2_output_root_mean_squared_error: 1.0725
Epoch 498/500
614/614 [=====] - 0s 133us/sample - loss: 0.5984 -
y1_output_loss: 0.1637 - y2_output_loss: 0.4350 -
y1_output_root_mean_squared_error: 0.3999 - y2_output_root_mean_squared_error:
0.6621 - val_loss: 0.8060 - val_y1_output_loss: 0.2613 - val_y2_output_loss:
0.5427 - val_y1_output_root_mean_squared_error: 0.5128 -
val_y2_output_root_mean_squared_error: 0.7369
Epoch 499/500
614/614 [=====] - 0s 127us/sample - loss: 0.3777 -
y1_output_loss: 0.1260 - y2_output_loss: 0.2602 -
y1_output_root_mean_squared_error: 0.3556 - y2_output_root_mean_squared_error:
0.5012 - val_loss: 0.7888 - val_y1_output_loss: 0.1613 - val_y2_output_loss:
0.6097 - val_y1_output_root_mean_squared_error: 0.3950 -
val_y2_output_root_mean_squared_error: 0.7955
Epoch 500/500
614/614 [=====] - 0s 124us/sample - loss: 0.4933 -
y1_output_loss: 0.1224 - y2_output_loss: 0.3671 -
y1_output_root_mean_squared_error: 0.3507 - y2_output_root_mean_squared_error:
0.6085 - val_loss: 0.5785 - val_y1_output_loss: 0.1741 - val_y2_output_loss:
0.3971 - val_y1_output_root_mean_squared_error: 0.4187 -
val_y2_output_root_mean_squared_error: 0.6349

```

1.7 Evaluate the Model and Plot Metrics

```

[7]: # Test the model and print loss and mse for both outputs
loss, Y1_loss, Y2_loss, Y1_rmse, Y2_rmse = model.evaluate(x=norm_test_X,
    ↪y=test_Y)
print("Loss = {}, Y1_loss = {}, Y1_mse = {}, Y2_loss = {}, Y2_mse = {}".
    ↪format(loss, Y1_loss, Y1_rmse, Y2_loss, Y2_rmse))

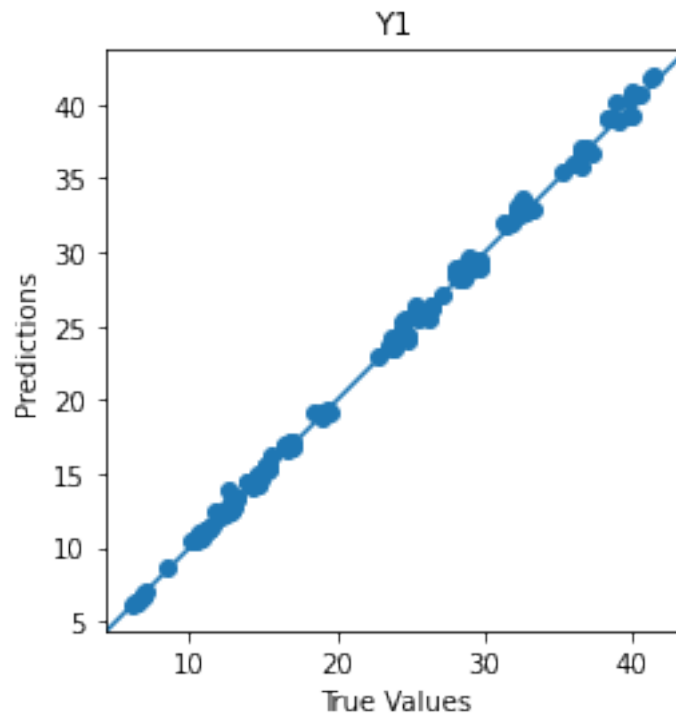
```

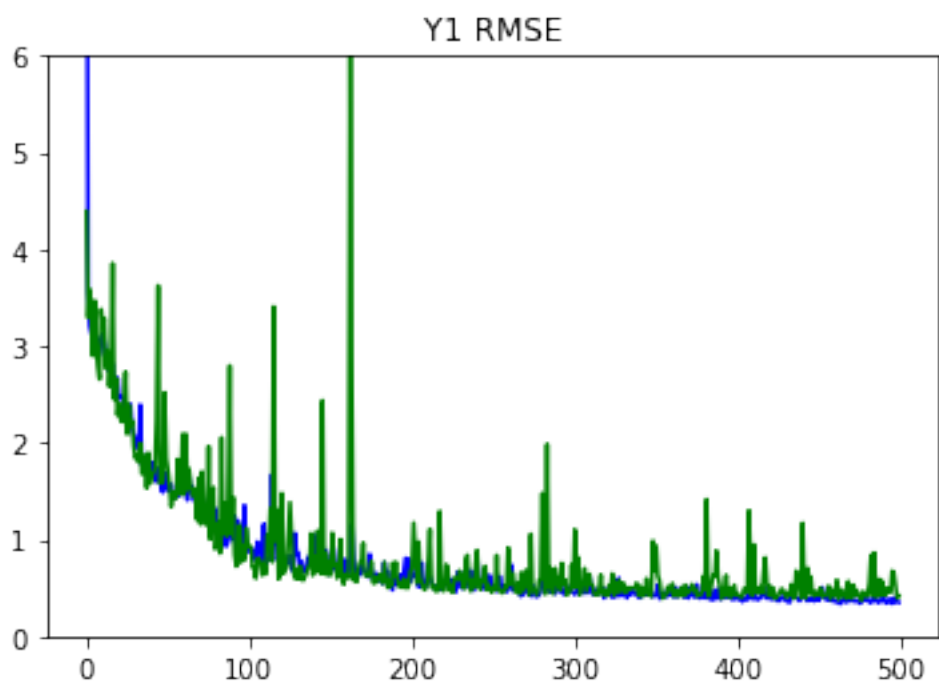
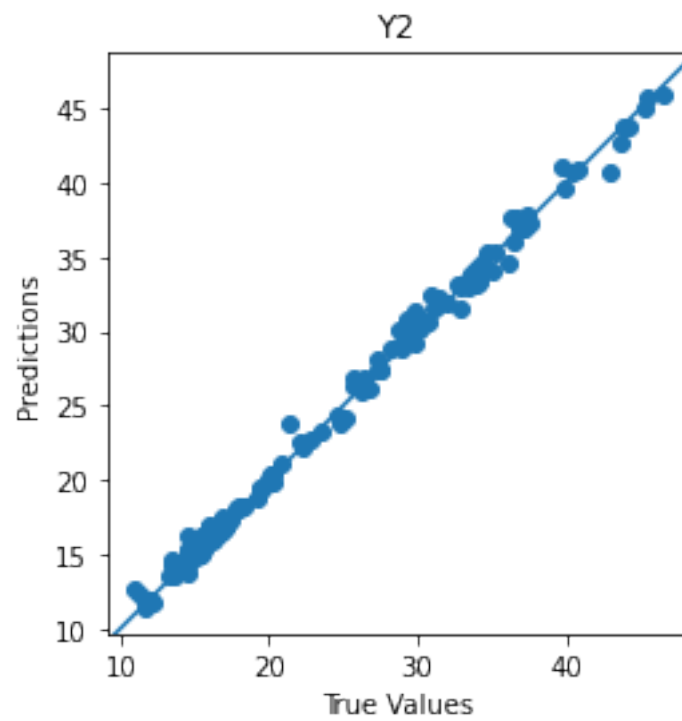
```

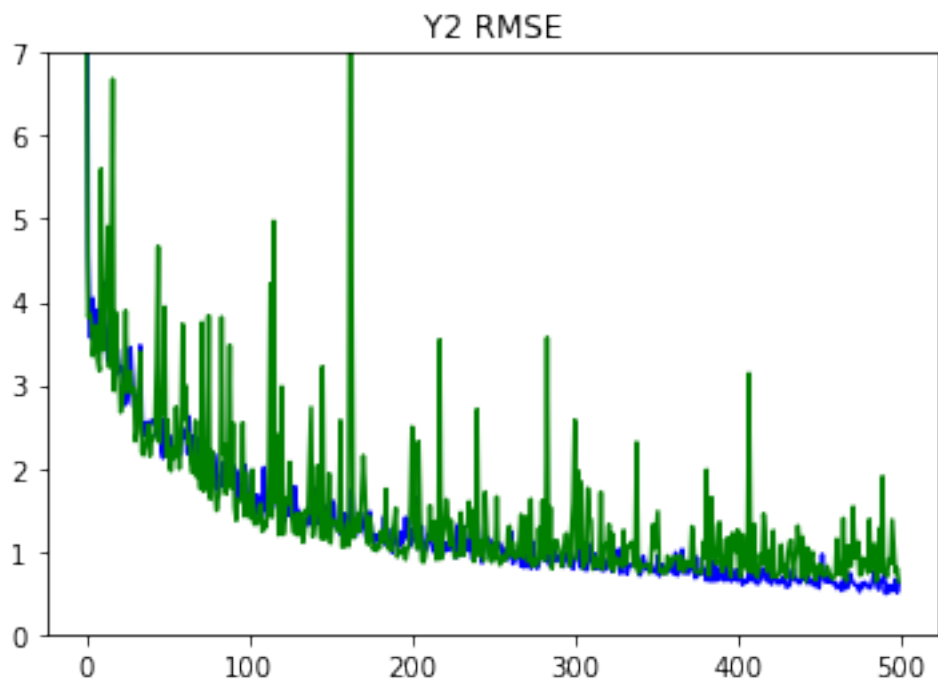
154/154 [=====] - 0s 586us/sample - loss: 0.5785 -
y1_output_loss: 0.1809 - y2_output_loss: 0.4069 -
y1_output_root_mean_squared_error: 0.4187 - y2_output_root_mean_squared_error:
0.6349
Loss = 0.578466388312253, Y1_loss = 0.18090002238750458, Y1_mse =
0.4187087416648865, Y2_loss = 0.4068763852119446, Y2_mse = 0.6349404454231262

```

```
[8]: # Plot the loss and mse
Y_pred = model.predict(norm_test_X)
plot_diff(test_Y[0], Y_pred[0], title='Y1')
plot_diff(test_Y[1], Y_pred[1], title='Y2')
plot_metrics(metric_name='y1_output_root_mean_squared_error', title='Y1 RMSE',
             ↪ylim=6)
plot_metrics(metric_name='y2_output_root_mean_squared_error', title='Y2 RMSE',
             ↪ylim=7)
```







[]: