

C1_W1_Lab_2_multi-output

December 12, 2022

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]: # Specify data URI
URI = './data/ENB2012_data.xlsx'

# Use pandas excel reader
df = pd.read_excel(URI)
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 977us/sample - loss: 255.1052 -
y1_output_loss: 118.3707 - y2_output_loss: 134.5033 -
y1_output_root_mean_squared_error: 10.9318 - y2_output_root_mean_squared_error:
11.6448 - val_loss: 104.0414 - val_y1_output_loss: 34.8053 - val_y2_output_loss:
68.1944 - val_y1_output_root_mean_squared_error: 5.9575 -
val_y2_output_root_mean_squared_error: 8.2795

```

Epoch 2/500

```

614/614 [=====] - 0s 155us/sample - loss: 33.8879 -
y1_output_loss: 13.4509 - y2_output_loss: 20.7187 -
y1_output_root_mean_squared_error: 3.6363 - y2_output_root_mean_squared_error:
4.5459 - val_loss: 21.4441 - val_y1_output_loss: 9.2458 - val_y2_output_loss:
11.5999 - val_y1_output_root_mean_squared_error: 3.0880 -
val_y2_output_root_mean_squared_error: 3.4508

```

Epoch 3/500

614/614 [=====] - 0s 140us/sample - loss: 24.5353 -
y1_output_loss: 10.0220 - y2_output_loss: 14.7094 -
y1_output_root_mean_squared_error: 3.1656 - y2_output_root_mean_squared_error:
3.8098 - val_loss: 56.9064 - val_y1_output_loss: 14.4596 - val_y2_output_loss:
41.8537 - val_y1_output_root_mean_squared_error: 3.8583 -
val_y2_output_root_mean_squared_error: 6.4823
Epoch 4/500
614/614 [=====] - 0s 135us/sample - loss: 30.4391 -
y1_output_loss: 10.8986 - y2_output_loss: 19.5393 -
y1_output_root_mean_squared_error: 3.2917 - y2_output_root_mean_squared_error:
4.4276 - val_loss: 20.6943 - val_y1_output_loss: 8.9833 - val_y2_output_loss:
11.2490 - val_y1_output_root_mean_squared_error: 3.0429 -
val_y2_output_root_mean_squared_error: 3.3816
Epoch 5/500
614/614 [=====] - 0s 137us/sample - loss: 29.5067 -
y1_output_loss: 10.4318 - y2_output_loss: 18.9567 -
y1_output_root_mean_squared_error: 3.2347 - y2_output_root_mean_squared_error:
4.3639 - val_loss: 22.4957 - val_y1_output_loss: 8.2290 - val_y2_output_loss:
13.8113 - val_y1_output_root_mean_squared_error: 2.9185 -
val_y2_output_root_mean_squared_error: 3.7387
Epoch 6/500
614/614 [=====] - 0s 139us/sample - loss: 26.5246 -
y1_output_loss: 9.6781 - y2_output_loss: 16.9386 -
y1_output_root_mean_squared_error: 3.1100 - y2_output_root_mean_squared_error:
4.1052 - val_loss: 42.1441 - val_y1_output_loss: 10.6444 - val_y2_output_loss:
30.1147 - val_y1_output_root_mean_squared_error: 3.3114 -
val_y2_output_root_mean_squared_error: 5.5838
Epoch 7/500
614/614 [=====] - 0s 137us/sample - loss: 23.1925 -
y1_output_loss: 9.1194 - y2_output_loss: 13.8786 -
y1_output_root_mean_squared_error: 3.0320 - y2_output_root_mean_squared_error:
3.7416 - val_loss: 28.8386 - val_y1_output_loss: 8.9144 - val_y2_output_loss:
19.5502 - val_y1_output_root_mean_squared_error: 3.0389 -
val_y2_output_root_mean_squared_error: 4.4276
Epoch 8/500
614/614 [=====] - 0s 135us/sample - loss: 21.6173 -
y1_output_loss: 8.5108 - y2_output_loss: 12.9402 -
y1_output_root_mean_squared_error: 2.9304 - y2_output_root_mean_squared_error:
3.6097 - val_loss: 15.6297 - val_y1_output_loss: 7.1231 - val_y2_output_loss:
8.0742 - val_y1_output_root_mean_squared_error: 2.7183 -
val_y2_output_root_mean_squared_error: 2.8707
Epoch 9/500
614/614 [=====] - 0s 133us/sample - loss: 22.5949 -
y1_output_loss: 8.7521 - y2_output_loss: 13.6714 -
y1_output_root_mean_squared_error: 2.9705 - y2_output_root_mean_squared_error:
3.7109 - val_loss: 15.7288 - val_y1_output_loss: 6.9002 - val_y2_output_loss:
8.4513 - val_y1_output_root_mean_squared_error: 2.6748 -
val_y2_output_root_mean_squared_error: 2.9282

Epoch 10/500
614/614 [=====] - 0s 147us/sample - loss: 23.2997 -
y1_output_loss: 8.6106 - y2_output_loss: 14.5199 -
y1_output_root_mean_squared_error: 2.9456 - y2_output_root_mean_squared_error:
3.8240 - val_loss: 16.3166 - val_y1_output_loss: 7.1424 - val_y2_output_loss:
8.9235 - val_y1_output_root_mean_squared_error: 2.7191 -
val_y2_output_root_mean_squared_error: 2.9872
Epoch 11/500
614/614 [=====] - 0s 134us/sample - loss: 21.1497 -
y1_output_loss: 8.0563 - y2_output_loss: 12.9442 -
y1_output_root_mean_squared_error: 2.8507 - y2_output_root_mean_squared_error:
3.6088 - val_loss: 15.8538 - val_y1_output_loss: 6.9429 - val_y2_output_loss:
8.5290 - val_y1_output_root_mean_squared_error: 2.6797 -
val_y2_output_root_mean_squared_error: 2.9450
Epoch 12/500
614/614 [=====] - 0s 138us/sample - loss: 24.5532 -
y1_output_loss: 8.4784 - y2_output_loss: 16.9354 -
y1_output_root_mean_squared_error: 2.8814 - y2_output_root_mean_squared_error:
4.0312 - val_loss: 20.4018 - val_y1_output_loss: 7.9575 - val_y2_output_loss:
12.0374 - val_y1_output_root_mean_squared_error: 2.8718 -
val_y2_output_root_mean_squared_error: 3.4863
Epoch 13/500
614/614 [=====] - 0s 136us/sample - loss: 23.1876 -
y1_output_loss: 8.3740 - y2_output_loss: 14.7521 -
y1_output_root_mean_squared_error: 2.9011 - y2_output_root_mean_squared_error:
3.8433 - val_loss: 32.8542 - val_y1_output_loss: 8.2393 - val_y2_output_loss:
23.5009 - val_y1_output_root_mean_squared_error: 2.9175 -
val_y2_output_root_mean_squared_error: 4.9338
Epoch 14/500
614/614 [=====] - 0s 137us/sample - loss: 23.5743 -
y1_output_loss: 8.5021 - y2_output_loss: 14.9063 -
y1_output_root_mean_squared_error: 2.9291 - y2_output_root_mean_squared_error:
3.8723 - val_loss: 20.4721 - val_y1_output_loss: 6.9124 - val_y2_output_loss:
12.8823 - val_y1_output_root_mean_squared_error: 2.6749 -
val_y2_output_root_mean_squared_error: 3.6492
Epoch 15/500
614/614 [=====] - 0s 135us/sample - loss: 22.0483 -
y1_output_loss: 7.9848 - y2_output_loss: 13.9668 -
y1_output_root_mean_squared_error: 2.8362 - y2_output_root_mean_squared_error:
3.7423 - val_loss: 18.5229 - val_y1_output_loss: 7.2373 - val_y2_output_loss:
11.2215 - val_y1_output_root_mean_squared_error: 2.7334 -
val_y2_output_root_mean_squared_error: 3.3244
Epoch 16/500
614/614 [=====] - 0s 141us/sample - loss: 17.4957 -
y1_output_loss: 6.9597 - y2_output_loss: 10.7357 -
y1_output_root_mean_squared_error: 2.6248 - y2_output_root_mean_squared_error:
3.2567 - val_loss: 48.3597 - val_y1_output_loss: 14.3599 - val_y2_output_loss:
33.4486 - val_y1_output_root_mean_squared_error: 3.8465 -

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val_y2_output_root_mean_squared_error: 5.7935
Epoch 17/500
614/614 [=====] - 0s 151us/sample - loss: 22.7755 -
y1_output_loss: 8.1592 - y2_output_loss: 14.8169 -
y1_output_root_mean_squared_error: 2.8518 - y2_output_root_mean_squared_error:
3.8266 - val_loss: 125.8082 - val_y1_output_loss: 24.5666 - val_y2_output_loss:
97.3150 - val_y1_output_root_mean_squared_error: 5.0278 -
val_y2_output_root_mean_squared_error: 10.0264
Epoch 18/500
614/614 [=====] - 0s 136us/sample - loss: 20.4044 -
y1_output_loss: 7.6868 - y2_output_loss: 12.6207 -
y1_output_root_mean_squared_error: 2.7814 - y2_output_root_mean_squared_error:
3.5593 - val_loss: 18.8725 - val_y1_output_loss: 7.4824 - val_y2_output_loss:
11.3262 - val_y1_output_root_mean_squared_error: 2.7791 -
val_y2_output_root_mean_squared_error: 3.3390
Epoch 19/500
614/614 [=====] - 0s 134us/sample - loss: 20.8668 -
y1_output_loss: 7.7899 - y2_output_loss: 13.0279 -
y1_output_root_mean_squared_error: 2.7898 - y2_output_root_mean_squared_error:
3.6172 - val_loss: 18.7277 - val_y1_output_loss: 6.5803 - val_y2_output_loss:
12.1196 - val_y1_output_root_mean_squared_error: 2.6061 -
val_y2_output_root_mean_squared_error: 3.4548
Epoch 20/500
614/614 [=====] - 0s 132us/sample - loss: 19.8450 -
y1_output_loss: 7.3166 - y2_output_loss: 13.4055 -
y1_output_root_mean_squared_error: 2.6790 - y2_output_root_mean_squared_error:
3.5592 - val_loss: 82.5397 - val_y1_output_loss: 18.6456 - val_y2_output_loss:
61.5904 - val_y1_output_root_mean_squared_error: 4.3624 -
val_y2_output_root_mean_squared_error: 7.9693
Epoch 21/500
614/614 [=====] - 0s 137us/sample - loss: 16.6293 -
y1_output_loss: 6.0461 - y2_output_loss: 10.5274 -
y1_output_root_mean_squared_error: 2.4662 - y2_output_root_mean_squared_error:
3.2477 - val_loss: 14.9963 - val_y1_output_loss: 6.0961 - val_y2_output_loss:
8.5233 - val_y1_output_root_mean_squared_error: 2.5119 -
val_y2_output_root_mean_squared_error: 2.9473
Epoch 22/500
614/614 [=====] - 0s 136us/sample - loss: 17.0370 -
y1_output_loss: 6.1130 - y2_output_loss: 10.8380 -
y1_output_root_mean_squared_error: 2.4774 - y2_output_root_mean_squared_error:
3.3014 - val_loss: 13.6488 - val_y1_output_loss: 6.4690 - val_y2_output_loss:
7.0476 - val_y1_output_root_mean_squared_error: 2.5847 -
val_y2_output_root_mean_squared_error: 2.6398
Epoch 23/500
614/614 [=====] - 0s 131us/sample - loss: 16.6275 -
y1_output_loss: 6.0591 - y2_output_loss: 10.5361 -
y1_output_root_mean_squared_error: 2.4620 - y2_output_root_mean_squared_error:
3.2506 - val_loss: 20.1742 - val_y1_output_loss: 8.3555 - val_y2_output_loss:

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12.1482 - val_y1_output_root_mean_squared_error: 2.9117 -
val_y2_output_root_mean_squared_error: 3.4199
Epoch 24/500
614/614 [=====] - 0s 131us/sample - loss: 18.3896 -
y1_output_loss: 6.3920 - y2_output_loss: 11.8520 -
y1_output_root_mean_squared_error: 2.5378 - y2_output_root_mean_squared_error:
3.4568 - val_loss: 19.4981 - val_y1_output_loss: 6.0376 - val_y2_output_loss:
12.8382 - val_y1_output_root_mean_squared_error: 2.5033 -
val_y2_output_root_mean_squared_error: 3.6375
Epoch 25/500
614/614 [=====] - 0s 134us/sample - loss: 18.4649 -
y1_output_loss: 6.3618 - y2_output_loss: 11.9786 -
y1_output_root_mean_squared_error: 2.5250 - y2_output_root_mean_squared_error:
3.4770 - val_loss: 11.8755 - val_y1_output_loss: 5.2153 - val_y2_output_loss:
6.6350 - val_y1_output_root_mean_squared_error: 2.3164 -
val_y2_output_root_mean_squared_error: 2.5514
Epoch 26/500
614/614 [=====] - 0s 135us/sample - loss: 14.7317 -
y1_output_loss: 5.4309 - y2_output_loss: 9.4174 -
y1_output_root_mean_squared_error: 2.3343 - y2_output_root_mean_squared_error:
3.0467 - val_loss: 65.8123 - val_y1_output_loss: 11.4386 - val_y2_output_loss:
52.0262 - val_y1_output_root_mean_squared_error: 3.4428 -
val_y2_output_root_mean_squared_error: 7.3457
Epoch 27/500
614/614 [=====] - 0s 147us/sample - loss: 15.1607 -
y1_output_loss: 5.3760 - y2_output_loss: 9.6709 -
y1_output_root_mean_squared_error: 2.3293 - y2_output_root_mean_squared_error:
3.1201 - val_loss: 11.5470 - val_y1_output_loss: 4.4472 - val_y2_output_loss:
7.0608 - val_y1_output_root_mean_squared_error: 2.1463 -
val_y2_output_root_mean_squared_error: 2.6345
Epoch 28/500
614/614 [=====] - 0s 141us/sample - loss: 15.1485 -
y1_output_loss: 5.3047 - y2_output_loss: 9.8703 -
y1_output_root_mean_squared_error: 2.3067 - y2_output_root_mean_squared_error:
3.1349 - val_loss: 95.6684 - val_y1_output_loss: 17.2553 - val_y2_output_loss:
75.0262 - val_y1_output_root_mean_squared_error: 4.2285 -
val_y2_output_root_mean_squared_error: 8.8198
Epoch 29/500
614/614 [=====] - 0s 134us/sample - loss: 21.7425 -
y1_output_loss: 6.9050 - y2_output_loss: 14.7384 -
y1_output_root_mean_squared_error: 2.6236 - y2_output_root_mean_squared_error:
3.8548 - val_loss: 29.5556 - val_y1_output_loss: 11.5735 - val_y2_output_loss:
18.0303 - val_y1_output_root_mean_squared_error: 3.4372 -
val_y2_output_root_mean_squared_error: 4.2121
Epoch 30/500
614/614 [=====] - 0s 143us/sample - loss: 11.3446 -
y1_output_loss: 4.2421 - y2_output_loss: 7.1545 -
y1_output_root_mean_squared_error: 2.0459 - y2_output_root_mean_squared_error:

2.6756 - val_loss: 9.6823 - val_y1_output_loss: 4.2535 - val_y2_output_loss:
 5.3788 - val_y1_output_root_mean_squared_error: 2.0909 -
 val_y2_output_root_mean_squared_error: 2.3044
 Epoch 31/500
 614/614 [=====] - 0s 131us/sample - loss: 12.0020 -
 y1_output_loss: 4.0725 - y2_output_loss: 7.8450 -
 y1_output_root_mean_squared_error: 2.0247 - y2_output_root_mean_squared_error:
 2.8112 - val_loss: 8.4316 - val_y1_output_loss: 3.5578 - val_y2_output_loss:
 4.8585 - val_y1_output_root_mean_squared_error: 1.9164 -
 val_y2_output_root_mean_squared_error: 2.1816
 Epoch 32/500
 614/614 [=====] - 0s 137us/sample - loss: 10.1314 -
 y1_output_loss: 3.6606 - y2_output_loss: 6.3829 -
 y1_output_root_mean_squared_error: 1.9218 - y2_output_root_mean_squared_error:
 2.5373 - val_loss: 8.9072 - val_y1_output_loss: 3.4458 - val_y2_output_loss:
 5.3573 - val_y1_output_root_mean_squared_error: 1.8893 -
 val_y2_output_root_mean_squared_error: 2.3104
 Epoch 33/500
 614/614 [=====] - 0s 137us/sample - loss: 11.5624 -
 y1_output_loss: 4.0811 - y2_output_loss: 7.5224 -
 y1_output_root_mean_squared_error: 2.0137 - y2_output_root_mean_squared_error:
 2.7400 - val_loss: 11.5180 - val_y1_output_loss: 4.2069 - val_y2_output_loss:
 7.6334 - val_y1_output_root_mean_squared_error: 2.0629 -
 val_y2_output_root_mean_squared_error: 2.6949
 Epoch 34/500
 614/614 [=====] - 0s 133us/sample - loss: 10.8589 -
 y1_output_loss: 3.7896 - y2_output_loss: 6.9932 -
 y1_output_root_mean_squared_error: 1.9506 - y2_output_root_mean_squared_error:
 2.6560 - val_loss: 8.0132 - val_y1_output_loss: 3.4992 - val_y2_output_loss:
 4.4488 - val_y1_output_root_mean_squared_error: 1.9051 -
 val_y2_output_root_mean_squared_error: 2.0937
 Epoch 35/500
 614/614 [=====] - 0s 134us/sample - loss: 11.9530 -
 y1_output_loss: 3.7987 - y2_output_loss: 8.1094 -
 y1_output_root_mean_squared_error: 1.9558 - y2_output_root_mean_squared_error:
 2.8509 - val_loss: 10.1911 - val_y1_output_loss: 3.1140 - val_y2_output_loss:
 7.2386 - val_y1_output_root_mean_squared_error: 1.7883 -
 val_y2_output_root_mean_squared_error: 2.6444
 Epoch 36/500
 614/614 [=====] - 0s 135us/sample - loss: 9.5660 -
 y1_output_loss: 3.3466 - y2_output_loss: 6.5272 -
 y1_output_root_mean_squared_error: 1.8233 - y2_output_root_mean_squared_error:
 2.4983 - val_loss: 64.1800 - val_y1_output_loss: 11.3126 - val_y2_output_loss:
 50.5406 - val_y1_output_root_mean_squared_error: 3.4258 -
 val_y2_output_root_mean_squared_error: 7.2418
 Epoch 37/500
 614/614 [=====] - 0s 139us/sample - loss: 10.8342 -
 y1_output_loss: 3.4244 - y2_output_loss: 7.3936 -

y1_output_root_mean_squared_error: 1.8560 - y2_output_root_mean_squared_error:
 2.7184 - val_loss: 26.7328 - val_y1_output_loss: 4.8834 - val_y2_output_loss:
 21.0112 - val_y1_output_root_mean_squared_error: 2.2450 -
 val_y2_output_root_mean_squared_error: 4.6576
 Epoch 38/500
 614/614 [=====] - 0s 137us/sample - loss: 9.7147 -
 y1_output_loss: 2.9834 - y2_output_loss: 6.6608 -
 y1_output_root_mean_squared_error: 1.7330 - y2_output_root_mean_squared_error:
 2.5906 - val_loss: 9.9681 - val_y1_output_loss: 2.8458 - val_y2_output_loss:
 6.9133 - val_y1_output_root_mean_squared_error: 1.7158 -
 val_y2_output_root_mean_squared_error: 2.6503
 Epoch 39/500
 614/614 [=====] - 0s 151us/sample - loss: 7.8336 -
 y1_output_loss: 2.6479 - y2_output_loss: 5.2280 -
 y1_output_root_mean_squared_error: 1.6268 - y2_output_root_mean_squared_error:
 2.2775 - val_loss: 16.7947 - val_y1_output_loss: 3.9356 - val_y2_output_loss:
 12.3114 - val_y1_output_root_mean_squared_error: 2.0191 -
 val_y2_output_root_mean_squared_error: 3.5662
 Epoch 40/500
 614/614 [=====] - 0s 139us/sample - loss: 8.7406 -
 y1_output_loss: 2.8088 - y2_output_loss: 6.0028 -
 y1_output_root_mean_squared_error: 1.6809 - y2_output_root_mean_squared_error:
 2.4321 - val_loss: 10.8140 - val_y1_output_loss: 2.4107 - val_y2_output_loss:
 8.6023 - val_y1_output_root_mean_squared_error: 1.5765 -
 val_y2_output_root_mean_squared_error: 2.8859
 Epoch 41/500
 614/614 [=====] - 0s 136us/sample - loss: 8.0184 -
 y1_output_loss: 2.5729 - y2_output_loss: 5.4217 -
 y1_output_root_mean_squared_error: 1.6076 - y2_output_root_mean_squared_error:
 2.3311 - val_loss: 8.4414 - val_y1_output_loss: 2.9545 - val_y2_output_loss:
 5.4559 - val_y1_output_root_mean_squared_error: 1.7400 -
 val_y2_output_root_mean_squared_error: 2.3268
 Epoch 42/500
 614/614 [=====] - 0s 134us/sample - loss: 10.4324 -
 y1_output_loss: 3.1477 - y2_output_loss: 7.2352 -
 y1_output_root_mean_squared_error: 1.7765 - y2_output_root_mean_squared_error:
 2.6975 - val_loss: 7.2540 - val_y1_output_loss: 2.5938 - val_y2_output_loss:
 4.7689 - val_y1_output_root_mean_squared_error: 1.6205 -
 val_y2_output_root_mean_squared_error: 2.1513
 Epoch 43/500
 614/614 [=====] - 0s 132us/sample - loss: 6.9684 -
 y1_output_loss: 2.1364 - y2_output_loss: 4.8013 -
 y1_output_root_mean_squared_error: 1.4672 - y2_output_root_mean_squared_error:
 2.1944 - val_loss: 6.7448 - val_y1_output_loss: 2.5717 - val_y2_output_loss:
 4.3353 - val_y1_output_root_mean_squared_error: 1.6243 -
 val_y2_output_root_mean_squared_error: 2.0265
 Epoch 44/500
 614/614 [=====] - 0s 129us/sample - loss: 8.2295 -

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y1_output_loss: 2.5442 - y2_output_loss: 5.6251 -
y1_output_root_mean_squared_error: 1.6001 - y2_output_root_mean_squared_error:
2.3810 - val_loss: 6.2483 - val_y1_output_loss: 2.0669 - val_y2_output_loss:
4.1424 - val_y1_output_root_mean_squared_error: 1.4612 -
val_y2_output_root_mean_squared_error: 2.0281
Epoch 45/500
614/614 [=====] - 0s 130us/sample - loss: 7.2539 -
y1_output_loss: 2.1563 - y2_output_loss: 5.0464 -
y1_output_root_mean_squared_error: 1.4745 - y2_output_root_mean_squared_error:
2.2539 - val_loss: 5.6619 - val_y1_output_loss: 2.1197 - val_y2_output_loss:
3.5736 - val_y1_output_root_mean_squared_error: 1.4791 -
val_y2_output_root_mean_squared_error: 1.8639
Epoch 46/500
614/614 [=====] - 0s 130us/sample - loss: 7.7810 -
y1_output_loss: 2.2160 - y2_output_loss: 5.5756 -
y1_output_root_mean_squared_error: 1.4903 - y2_output_root_mean_squared_error:
2.3580 - val_loss: 5.8753 - val_y1_output_loss: 2.3161 - val_y2_output_loss:
3.6732 - val_y1_output_root_mean_squared_error: 1.5355 -
val_y2_output_root_mean_squared_error: 1.8755
Epoch 47/500
614/614 [=====] - 0s 131us/sample - loss: 7.6238 -
y1_output_loss: 2.2173 - y2_output_loss: 5.4319 -
y1_output_root_mean_squared_error: 1.4872 - y2_output_root_mean_squared_error:
2.3264 - val_loss: 20.1999 - val_y1_output_loss: 5.5587 - val_y2_output_loss:
13.9377 - val_y1_output_root_mean_squared_error: 2.3974 -
val_y2_output_root_mean_squared_error: 3.8016
Epoch 48/500
614/614 [=====] - 0s 133us/sample - loss: 9.2306 -
y1_output_loss: 2.6264 - y2_output_loss: 6.5228 -
y1_output_root_mean_squared_error: 1.6275 - y2_output_root_mean_squared_error:
2.5655 - val_loss: 5.0844 - val_y1_output_loss: 1.7202 - val_y2_output_loss:
3.4241 - val_y1_output_root_mean_squared_error: 1.3325 -
val_y2_output_root_mean_squared_error: 1.8190
Epoch 49/500
614/614 [=====] - 0s 134us/sample - loss: 5.7310 -
y1_output_loss: 1.6716 - y2_output_loss: 4.0091 -
y1_output_root_mean_squared_error: 1.2975 - y2_output_root_mean_squared_error:
2.0118 - val_loss: 7.4036 - val_y1_output_loss: 2.2810 - val_y2_output_loss:
5.2850 - val_y1_output_root_mean_squared_error: 1.5283 -
val_y2_output_root_mean_squared_error: 2.2512
Epoch 50/500
614/614 [=====] - 0s 135us/sample - loss: 7.1876 -
y1_output_loss: 2.1050 - y2_output_loss: 5.0397 -
y1_output_root_mean_squared_error: 1.4516 - y2_output_root_mean_squared_error:
2.2540 - val_loss: 5.7525 - val_y1_output_loss: 1.9042 - val_y2_output_loss:
3.8586 - val_y1_output_root_mean_squared_error: 1.4050 -
val_y2_output_root_mean_squared_error: 1.9438
Epoch 51/500

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614/614 [=====] - 0s 139us/sample - loss: 9.5789 -
y1_output_loss: 2.6630 - y2_output_loss: 6.8746 -
y1_output_root_mean_squared_error: 1.6389 - y2_output_root_mean_squared_error:
2.6254 - val_loss: 9.4274 - val_y1_output_loss: 1.9910 - val_y2_output_loss:
7.2223 - val_y1_output_root_mean_squared_error: 1.4317 -
val_y2_output_root_mean_squared_error: 2.7162
Epoch 52/500
614/614 [=====] - 0s 139us/sample - loss: 8.1469 -
y1_output_loss: 2.2138 - y2_output_loss: 5.8585 -
y1_output_root_mean_squared_error: 1.4947 - y2_output_root_mean_squared_error:
2.4316 - val_loss: 7.0655 - val_y1_output_loss: 1.9872 - val_y2_output_loss:
5.2481 - val_y1_output_root_mean_squared_error: 1.4255 -
val_y2_output_root_mean_squared_error: 2.2436
Epoch 53/500
614/614 [=====] - 0s 134us/sample - loss: 5.3581 -
y1_output_loss: 1.5965 - y2_output_loss: 3.7152 -
y1_output_root_mean_squared_error: 1.2688 - y2_output_root_mean_squared_error:
1.9360 - val_loss: 4.9014 - val_y1_output_loss: 1.7827 - val_y2_output_loss:
3.1604 - val_y1_output_root_mean_squared_error: 1.3587 -
val_y2_output_root_mean_squared_error: 1.7479
Epoch 54/500
614/614 [=====] - 0s 137us/sample - loss: 5.6282 -
y1_output_loss: 1.6085 - y2_output_loss: 3.9807 -
y1_output_root_mean_squared_error: 1.2720 - y2_output_root_mean_squared_error:
2.0025 - val_loss: 6.7194 - val_y1_output_loss: 2.0644 - val_y2_output_loss:
4.7750 - val_y1_output_root_mean_squared_error: 1.4526 -
val_y2_output_root_mean_squared_error: 2.1469
Epoch 55/500
614/614 [=====] - 0s 137us/sample - loss: 5.2247 -
y1_output_loss: 1.3458 - y2_output_loss: 3.8585 -
y1_output_root_mean_squared_error: 1.1591 - y2_output_root_mean_squared_error:
1.9701 - val_loss: 5.5360 - val_y1_output_loss: 1.8321 - val_y2_output_loss:
3.7671 - val_y1_output_root_mean_squared_error: 1.3756 -
val_y2_output_root_mean_squared_error: 1.9088
Epoch 56/500
614/614 [=====] - 0s 135us/sample - loss: 6.9914 -
y1_output_loss: 1.8314 - y2_output_loss: 5.1728 -
y1_output_root_mean_squared_error: 1.3552 - y2_output_root_mean_squared_error:
2.2704 - val_loss: 8.5307 - val_y1_output_loss: 1.5493 - val_y2_output_loss:
6.6989 - val_y1_output_root_mean_squared_error: 1.2676 -
val_y2_output_root_mean_squared_error: 2.6313
Epoch 57/500
614/614 [=====] - 0s 134us/sample - loss: 5.8146 -
y1_output_loss: 1.6465 - y2_output_loss: 4.1126 -
y1_output_root_mean_squared_error: 1.2894 - y2_output_root_mean_squared_error:
2.0377 - val_loss: 4.7793 - val_y1_output_loss: 1.8685 - val_y2_output_loss:
2.9637 - val_y1_output_root_mean_squared_error: 1.3836 -
val_y2_output_root_mean_squared_error: 1.6926

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Epoch 58/500

614/614 [=====] - 0s 132us/sample - loss: 6.1516 -
y1_output_loss: 1.5961 - y2_output_loss: 4.5562 -
y1_output_root_mean_squared_error: 1.2594 - y2_output_root_mean_squared_error:
2.1367 - val_loss: 8.2418 - val_y1_output_loss: 3.6304 - val_y2_output_loss:
4.6605 - val_y1_output_root_mean_squared_error: 1.9263 -
val_y2_output_root_mean_squared_error: 2.1287

Epoch 59/500

614/614 [=====] - 0s 134us/sample - loss: 4.9914 -
y1_output_loss: 1.3116 - y2_output_loss: 3.6707 -
y1_output_root_mean_squared_error: 1.1387 - y2_output_root_mean_squared_error:
1.9222 - val_loss: 8.7537 - val_y1_output_loss: 3.2372 - val_y2_output_loss:
5.5279 - val_y1_output_root_mean_squared_error: 1.8259 -
val_y2_output_root_mean_squared_error: 2.3280

Epoch 60/500

614/614 [=====] - 0s 133us/sample - loss: 6.0220 -
y1_output_loss: 1.7249 - y2_output_loss: 4.2690 -
y1_output_root_mean_squared_error: 1.3188 - y2_output_root_mean_squared_error:
2.0695 - val_loss: 5.0720 - val_y1_output_loss: 1.2099 - val_y2_output_loss:
3.7674 - val_y1_output_root_mean_squared_error: 1.1193 -
val_y2_output_root_mean_squared_error: 1.9542

Epoch 61/500

614/614 [=====] - 0s 135us/sample - loss: 5.5364 -
y1_output_loss: 1.3050 - y2_output_loss: 4.2828 -
y1_output_root_mean_squared_error: 1.1461 - y2_output_root_mean_squared_error:
2.0550 - val_loss: 19.1698 - val_y1_output_loss: 3.1133 - val_y2_output_loss:
15.4907 - val_y1_output_root_mean_squared_error: 1.7789 -
val_y2_output_root_mean_squared_error: 4.0007

Epoch 62/500

614/614 [=====] - 0s 134us/sample - loss: 5.2186 -
y1_output_loss: 1.4468 - y2_output_loss: 3.7796 -
y1_output_root_mean_squared_error: 1.1974 - y2_output_root_mean_squared_error:
1.9455 - val_loss: 4.6831 - val_y1_output_loss: 1.7266 - val_y2_output_loss:
3.0446 - val_y1_output_root_mean_squared_error: 1.3292 -
val_y2_output_root_mean_squared_error: 1.7077

Epoch 63/500

614/614 [=====] - 0s 137us/sample - loss: 5.7434 -
y1_output_loss: 1.5682 - y2_output_loss: 4.1442 -
y1_output_root_mean_squared_error: 1.2541 - y2_output_root_mean_squared_error:
2.0422 - val_loss: 8.4675 - val_y1_output_loss: 3.2036 - val_y2_output_loss:
5.0469 - val_y1_output_root_mean_squared_error: 1.8216 -
val_y2_output_root_mean_squared_error: 2.2692

Epoch 64/500

614/614 [=====] - 0s 132us/sample - loss: 4.5679 -
y1_output_loss: 1.2478 - y2_output_loss: 3.3044 -
y1_output_root_mean_squared_error: 1.1098 - y2_output_root_mean_squared_error:
1.8266 - val_loss: 6.6055 - val_y1_output_loss: 2.1241 - val_y2_output_loss:
4.3565 - val_y1_output_root_mean_squared_error: 1.4775 -

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val_y2_output_root_mean_squared_error: 2.1030
Epoch 65/500
614/614 [=====] - 0s 133us/sample - loss: 5.0384 -
y1_output_loss: 1.2508 - y2_output_loss: 3.8013 -
y1_output_root_mean_squared_error: 1.1207 - y2_output_root_mean_squared_error:
1.9448 - val_loss: 7.0733 - val_y1_output_loss: 2.1188 - val_y2_output_loss:
4.9522 - val_y1_output_root_mean_squared_error: 1.4817 -
val_y2_output_root_mean_squared_error: 2.2086
Epoch 66/500
614/614 [=====] - 0s 138us/sample - loss: 5.2009 -
y1_output_loss: 1.2020 - y2_output_loss: 3.9824 -
y1_output_root_mean_squared_error: 1.1010 - y2_output_root_mean_squared_error:
1.9971 - val_loss: 4.0536 - val_y1_output_loss: 1.3143 - val_y2_output_loss:
2.7295 - val_y1_output_root_mean_squared_error: 1.1630 -
val_y2_output_root_mean_squared_error: 1.6435
Epoch 67/500
614/614 [=====] - 0s 139us/sample - loss: 5.7173 -
y1_output_loss: 1.3186 - y2_output_loss: 4.3949 -
y1_output_root_mean_squared_error: 1.1514 - y2_output_root_mean_squared_error:
2.0956 - val_loss: 10.3030 - val_y1_output_loss: 2.8917 - val_y2_output_loss:
7.5176 - val_y1_output_root_mean_squared_error: 1.7151 -
val_y2_output_root_mean_squared_error: 2.7132
Epoch 68/500
614/614 [=====] - 0s 137us/sample - loss: 5.5029 -
y1_output_loss: 1.4999 - y2_output_loss: 4.0215 -
y1_output_root_mean_squared_error: 1.2162 - y2_output_root_mean_squared_error:
2.0059 - val_loss: 4.5876 - val_y1_output_loss: 1.4811 - val_y2_output_loss:
3.2078 - val_y1_output_root_mean_squared_error: 1.2299 -
val_y2_output_root_mean_squared_error: 1.7536
Epoch 69/500
614/614 [=====] - 0s 137us/sample - loss: 4.7250 -
y1_output_loss: 1.2745 - y2_output_loss: 3.4355 -
y1_output_root_mean_squared_error: 1.1322 - y2_output_root_mean_squared_error:
1.8556 - val_loss: 3.6560 - val_y1_output_loss: 1.3607 - val_y2_output_loss:
2.2718 - val_y1_output_root_mean_squared_error: 1.1855 -
val_y2_output_root_mean_squared_error: 1.5002
Epoch 70/500
614/614 [=====] - 0s 135us/sample - loss: 4.0619 -
y1_output_loss: 1.1660 - y2_output_loss: 2.8937 -
y1_output_root_mean_squared_error: 1.0848 - y2_output_root_mean_squared_error:
1.6986 - val_loss: 4.5733 - val_y1_output_loss: 1.3404 - val_y2_output_loss:
3.1612 - val_y1_output_root_mean_squared_error: 1.1757 -
val_y2_output_root_mean_squared_error: 1.7864
Epoch 71/500
614/614 [=====] - 0s 134us/sample - loss: 4.2879 -
y1_output_loss: 1.0565 - y2_output_loss: 3.2646 -
y1_output_root_mean_squared_error: 1.0204 - y2_output_root_mean_squared_error:
1.8019 - val_loss: 12.2129 - val_y1_output_loss: 3.9626 - val_y2_output_loss:

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8.3090 - val_y1_output_root_mean_squared_error: 2.0151 -
val_y2_output_root_mean_squared_error: 2.8552
Epoch 72/500
614/614 [=====] - 0s 130us/sample - loss: 4.3957 -
y1_output_loss: 1.1419 - y2_output_loss: 3.4026 -
y1_output_root_mean_squared_error: 1.0484 - y2_output_root_mean_squared_error:
1.8156 - val_loss: 19.2912 - val_y1_output_loss: 7.5133 - val_y2_output_loss:
11.6394 - val_y1_output_root_mean_squared_error: 2.7786 -
val_y2_output_root_mean_squared_error: 3.4016
Epoch 73/500
614/614 [=====] - 0s 136us/sample - loss: 5.6001 -
y1_output_loss: 1.5022 - y2_output_loss: 4.0732 -
y1_output_root_mean_squared_error: 1.2271 - y2_output_root_mean_squared_error:
2.0234 - val_loss: 5.9700 - val_y1_output_loss: 1.7945 - val_y2_output_loss:
4.2411 - val_y1_output_root_mean_squared_error: 1.3557 -
val_y2_output_root_mean_squared_error: 2.0327
Epoch 74/500
614/614 [=====] - 0s 136us/sample - loss: 4.3877 -
y1_output_loss: 1.2281 - y2_output_loss: 3.2080 -
y1_output_root_mean_squared_error: 1.1019 - y2_output_root_mean_squared_error:
1.7814 - val_loss: 6.6057 - val_y1_output_loss: 2.6994 - val_y2_output_loss:
3.9149 - val_y1_output_root_mean_squared_error: 1.6691 -
val_y2_output_root_mean_squared_error: 1.9544
Epoch 75/500
614/614 [=====] - 0s 133us/sample - loss: 4.4130 -
y1_output_loss: 1.1130 - y2_output_loss: 3.2769 -
y1_output_root_mean_squared_error: 1.0596 - y2_output_root_mean_squared_error:
1.8139 - val_loss: 3.2561 - val_y1_output_loss: 0.8917 - val_y2_output_loss:
2.3200 - val_y1_output_root_mean_squared_error: 0.9573 -
val_y2_output_root_mean_squared_error: 1.5296
Epoch 76/500
614/614 [=====] - 0s 136us/sample - loss: 5.0417 -
y1_output_loss: 1.2873 - y2_output_loss: 3.7573 -
y1_output_root_mean_squared_error: 1.1244 - y2_output_root_mean_squared_error:
1.9436 - val_loss: 3.8637 - val_y1_output_loss: 1.2910 - val_y2_output_loss:
2.5229 - val_y1_output_root_mean_squared_error: 1.1446 -
val_y2_output_root_mean_squared_error: 1.5980
Epoch 77/500
614/614 [=====] - 0s 136us/sample - loss: 4.1432 -
y1_output_loss: 1.0328 - y2_output_loss: 3.0732 -
y1_output_root_mean_squared_error: 1.0205 - y2_output_root_mean_squared_error:
1.7612 - val_loss: 4.2802 - val_y1_output_loss: 0.7875 - val_y2_output_loss:
3.3704 - val_y1_output_root_mean_squared_error: 0.8999 -
val_y2_output_root_mean_squared_error: 1.8629
Epoch 78/500
614/614 [=====] - 0s 134us/sample - loss: 4.2648 -
y1_output_loss: 1.0210 - y2_output_loss: 3.2189 -
y1_output_root_mean_squared_error: 1.0125 - y2_output_root_mean_squared_error:

1.7999 - val_loss: 4.4984 - val_y1_output_loss: 1.9654 - val_y2_output_loss:
 2.4407 - val_y1_output_root_mean_squared_error: 1.4269 -
 val_y2_output_root_mean_squared_error: 1.5692
 Epoch 79/500
 614/614 [=====] - 0s 137us/sample - loss: 4.2751 -
 y1_output_loss: 1.0394 - y2_output_loss: 3.2014 -
 y1_output_root_mean_squared_error: 1.0239 - y2_output_root_mean_squared_error:
 1.7963 - val_loss: 4.4293 - val_y1_output_loss: 1.6392 - val_y2_output_loss:
 2.7127 - val_y1_output_root_mean_squared_error: 1.3010 -
 val_y2_output_root_mean_squared_error: 1.6543
 Epoch 80/500
 614/614 [=====] - 0s 132us/sample - loss: 3.7728 -
 y1_output_loss: 0.9102 - y2_output_loss: 2.8267 -
 y1_output_root_mean_squared_error: 0.9584 - y2_output_root_mean_squared_error:
 1.6894 - val_loss: 2.9313 - val_y1_output_loss: 0.8850 - val_y2_output_loss:
 2.1215 - val_y1_output_root_mean_squared_error: 0.9531 -
 val_y2_output_root_mean_squared_error: 1.4223
 Epoch 81/500
 614/614 [=====] - 0s 132us/sample - loss: 3.8416 -
 y1_output_loss: 0.9378 - y2_output_loss: 2.9266 -
 y1_output_root_mean_squared_error: 0.9634 - y2_output_root_mean_squared_error:
 1.7069 - val_loss: 3.4548 - val_y1_output_loss: 1.1767 - val_y2_output_loss:
 2.2465 - val_y1_output_root_mean_squared_error: 1.0959 -
 val_y2_output_root_mean_squared_error: 1.5013
 Epoch 82/500
 614/614 [=====] - 0s 131us/sample - loss: 3.9331 -
 y1_output_loss: 0.9366 - y2_output_loss: 2.9778 -
 y1_output_root_mean_squared_error: 0.9683 - y2_output_root_mean_squared_error:
 1.7307 - val_loss: 2.7261 - val_y1_output_loss: 0.8507 - val_y2_output_loss:
 1.8465 - val_y1_output_root_mean_squared_error: 0.9388 -
 val_y2_output_root_mean_squared_error: 1.3583
 Epoch 83/500
 614/614 [=====] - 0s 130us/sample - loss: 3.1688 -
 y1_output_loss: 0.8217 - y2_output_loss: 2.3451 -
 y1_output_root_mean_squared_error: 0.9104 - y2_output_root_mean_squared_error:
 1.5297 - val_loss: 4.7290 - val_y1_output_loss: 0.8357 - val_y2_output_loss:
 3.7788 - val_y1_output_root_mean_squared_error: 0.9307 -
 val_y2_output_root_mean_squared_error: 1.9654
 Epoch 84/500
 614/614 [=====] - 0s 131us/sample - loss: 4.0220 -
 y1_output_loss: 1.0273 - y2_output_loss: 3.0983 -
 y1_output_root_mean_squared_error: 1.0079 - y2_output_root_mean_squared_error:
 1.7338 - val_loss: 41.5863 - val_y1_output_loss: 6.3073 - val_y2_output_loss:
 33.9966 - val_y1_output_root_mean_squared_error: 2.5426 -
 val_y2_output_root_mean_squared_error: 5.9263
 Epoch 85/500
 614/614 [=====] - 0s 133us/sample - loss: 4.0498 -
 y1_output_loss: 1.0237 - y2_output_loss: 2.9921 -

y1_output_root_mean_squared_error: 1.0148 - y2_output_root_mean_squared_error:
 1.7378 - val_loss: 3.5399 - val_y1_output_loss: 1.1299 - val_y2_output_loss:
 2.4357 - val_y1_output_root_mean_squared_error: 1.0712 -
 val_y2_output_root_mean_squared_error: 1.5467
 Epoch 86/500
 614/614 [=====] - 0s 130us/sample - loss: 3.9179 -
 y1_output_loss: 1.0099 - y2_output_loss: 2.8985 -
 y1_output_root_mean_squared_error: 1.0048 - y2_output_root_mean_squared_error:
 1.7054 - val_loss: 3.2313 - val_y1_output_loss: 0.6594 - val_y2_output_loss:
 2.6162 - val_y1_output_root_mean_squared_error: 0.8222 -
 val_y2_output_root_mean_squared_error: 1.5985
 Epoch 87/500
 614/614 [=====] - 0s 130us/sample - loss: 2.9737 -
 y1_output_loss: 0.7380 - y2_output_loss: 2.2208 -
 y1_output_root_mean_squared_error: 0.8599 - y2_output_root_mean_squared_error:
 1.4947 - val_loss: 4.7678 - val_y1_output_loss: 0.7753 - val_y2_output_loss:
 3.8829 - val_y1_output_root_mean_squared_error: 0.8830 -
 val_y2_output_root_mean_squared_error: 1.9970
 Epoch 88/500
 614/614 [=====] - 0s 134us/sample - loss: 3.3916 -
 y1_output_loss: 0.7312 - y2_output_loss: 2.6318 -
 y1_output_root_mean_squared_error: 0.8587 - y2_output_root_mean_squared_error:
 1.6292 - val_loss: 4.6837 - val_y1_output_loss: 1.3408 - val_y2_output_loss:
 3.4092 - val_y1_output_root_mean_squared_error: 1.1751 -
 val_y2_output_root_mean_squared_error: 1.8174
 Epoch 89/500
 614/614 [=====] - 0s 136us/sample - loss: 2.9080 -
 y1_output_loss: 0.8117 - y2_output_loss: 2.0741 -
 y1_output_root_mean_squared_error: 0.9034 - y2_output_root_mean_squared_error:
 1.4463 - val_loss: 2.9939 - val_y1_output_loss: 0.8786 - val_y2_output_loss:
 2.1487 - val_y1_output_root_mean_squared_error: 0.9459 -
 val_y2_output_root_mean_squared_error: 1.4488
 Epoch 90/500
 614/614 [=====] - 0s 129us/sample - loss: 4.3092 -
 y1_output_loss: 1.0937 - y2_output_loss: 3.1917 -
 y1_output_root_mean_squared_error: 1.0481 - y2_output_root_mean_squared_error:
 1.7918 - val_loss: 4.1655 - val_y1_output_loss: 1.8064 - val_y2_output_loss:
 2.3152 - val_y1_output_root_mean_squared_error: 1.3623 -
 val_y2_output_root_mean_squared_error: 1.5198
 Epoch 91/500
 614/614 [=====] - 0s 129us/sample - loss: 3.7830 -
 y1_output_loss: 0.9974 - y2_output_loss: 2.7648 -
 y1_output_root_mean_squared_error: 0.9974 - y2_output_root_mean_squared_error:
 1.6698 - val_loss: 3.1644 - val_y1_output_loss: 0.9179 - val_y2_output_loss:
 2.2857 - val_y1_output_root_mean_squared_error: 0.9684 -
 val_y2_output_root_mean_squared_error: 1.4921
 Epoch 92/500
 614/614 [=====] - 0s 129us/sample - loss: 4.8368 -

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y1_output_loss: 1.3418 - y2_output_loss: 3.4733 -
y1_output_root_mean_squared_error: 1.1574 - y2_output_root_mean_squared_error:
1.8701 - val_loss: 3.6364 - val_y1_output_loss: 1.2983 - val_y2_output_loss:
2.3621 - val_y1_output_root_mean_squared_error: 1.1490 -
val_y2_output_root_mean_squared_error: 1.5219
Epoch 93/500
614/614 [=====] - 0s 131us/sample - loss: 3.1746 -
y1_output_loss: 0.7465 - y2_output_loss: 2.4787 -
y1_output_root_mean_squared_error: 0.8504 - y2_output_root_mean_squared_error:
1.5657 - val_loss: 12.8767 - val_y1_output_loss: 3.2984 - val_y2_output_loss:
9.3929 - val_y1_output_root_mean_squared_error: 1.8429 -
val_y2_output_root_mean_squared_error: 3.0790
Epoch 94/500
614/614 [=====] - 0s 131us/sample - loss: 3.6158 -
y1_output_loss: 0.7352 - y2_output_loss: 2.8761 -
y1_output_root_mean_squared_error: 0.8578 - y2_output_root_mean_squared_error:
1.6970 - val_loss: 3.6245 - val_y1_output_loss: 0.9821 - val_y2_output_loss:
2.6330 - val_y1_output_root_mean_squared_error: 1.0034 -
val_y2_output_root_mean_squared_error: 1.6179
Epoch 95/500
614/614 [=====] - 0s 130us/sample - loss: 3.8525 -
y1_output_loss: 0.9108 - y2_output_loss: 2.9313 -
y1_output_root_mean_squared_error: 0.9501 - y2_output_root_mean_squared_error:
1.7175 - val_loss: 3.1272 - val_y1_output_loss: 0.7180 - val_y2_output_loss:
2.3430 - val_y1_output_root_mean_squared_error: 0.8571 -
val_y2_output_root_mean_squared_error: 1.5468
Epoch 96/500
614/614 [=====] - 0s 136us/sample - loss: 2.8452 -
y1_output_loss: 0.7275 - y2_output_loss: 2.1207 -
y1_output_root_mean_squared_error: 0.8511 - y2_output_root_mean_squared_error:
1.4563 - val_loss: 3.6385 - val_y1_output_loss: 0.8163 - val_y2_output_loss:
2.8654 - val_y1_output_root_mean_squared_error: 0.9175 -
val_y2_output_root_mean_squared_error: 1.6723
Epoch 97/500
614/614 [=====] - 0s 135us/sample - loss: 2.8606 -
y1_output_loss: 0.5926 - y2_output_loss: 2.2939 -
y1_output_root_mean_squared_error: 0.7651 - y2_output_root_mean_squared_error:
1.5084 - val_loss: 4.5450 - val_y1_output_loss: 0.9274 - val_y2_output_loss:
3.6428 - val_y1_output_root_mean_squared_error: 0.9801 -
val_y2_output_root_mean_squared_error: 1.8933
Epoch 98/500
614/614 [=====] - 0s 132us/sample - loss: 3.4914 -
y1_output_loss: 0.7787 - y2_output_loss: 2.6904 -
y1_output_root_mean_squared_error: 0.8827 - y2_output_root_mean_squared_error:
1.6469 - val_loss: 3.3373 - val_y1_output_loss: 0.7442 - val_y2_output_loss:
2.5094 - val_y1_output_root_mean_squared_error: 0.8695 -
val_y2_output_root_mean_squared_error: 1.6066
Epoch 99/500

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614/614 [=====] - 0s 130us/sample - loss: 2.7985 -
y1_output_loss: 0.6286 - y2_output_loss: 2.1621 -
y1_output_root_mean_squared_error: 0.7954 - y2_output_root_mean_squared_error:
1.4717 - val_loss: 4.3989 - val_y1_output_loss: 1.4929 - val_y2_output_loss:
2.9395 - val_y1_output_root_mean_squared_error: 1.2429 -
val_y2_output_root_mean_squared_error: 1.6894
Epoch 100/500
614/614 [=====] - 0s 137us/sample - loss: 2.9305 -
y1_output_loss: 0.6945 - y2_output_loss: 2.2211 -
y1_output_root_mean_squared_error: 0.8339 - y2_output_root_mean_squared_error:
1.4950 - val_loss: 2.1908 - val_y1_output_loss: 0.6362 - val_y2_output_loss:
1.5396 - val_y1_output_root_mean_squared_error: 0.7981 -
val_y2_output_root_mean_squared_error: 1.2465
Epoch 101/500
614/614 [=====] - 0s 138us/sample - loss: 5.0545 -
y1_output_loss: 1.3600 - y2_output_loss: 3.6874 -
y1_output_root_mean_squared_error: 1.1695 - y2_output_root_mean_squared_error:
1.9201 - val_loss: 6.4233 - val_y1_output_loss: 1.2293 - val_y2_output_loss:
5.3339 - val_y1_output_root_mean_squared_error: 1.1244 -
val_y2_output_root_mean_squared_error: 2.2714
Epoch 102/500
614/614 [=====] - 0s 140us/sample - loss: 4.2209 -
y1_output_loss: 0.9048 - y2_output_loss: 3.2824 -
y1_output_root_mean_squared_error: 0.9548 - y2_output_root_mean_squared_error:
1.8191 - val_loss: 2.1818 - val_y1_output_loss: 0.6153 - val_y2_output_loss:
1.5591 - val_y1_output_root_mean_squared_error: 0.7826 -
val_y2_output_root_mean_squared_error: 1.2528
Epoch 103/500
614/614 [=====] - 0s 138us/sample - loss: 2.7802 -
y1_output_loss: 0.6553 - y2_output_loss: 2.2771 -
y1_output_root_mean_squared_error: 0.8044 - y2_output_root_mean_squared_error:
1.4605 - val_loss: 31.3388 - val_y1_output_loss: 5.0352 - val_y2_output_loss:
25.3739 - val_y1_output_root_mean_squared_error: 2.2592 -
val_y2_output_root_mean_squared_error: 5.1220
Epoch 104/500
614/614 [=====] - 0s 134us/sample - loss: 3.0875 -
y1_output_loss: 0.7208 - y2_output_loss: 2.3972 -
y1_output_root_mean_squared_error: 0.8452 - y2_output_root_mean_squared_error:
1.5405 - val_loss: 14.0027 - val_y1_output_loss: 3.0090 - val_y2_output_loss:
10.5971 - val_y1_output_root_mean_squared_error: 1.7481 -
val_y2_output_root_mean_squared_error: 3.3086
Epoch 105/500
614/614 [=====] - 0s 139us/sample - loss: 3.6189 -
y1_output_loss: 0.8535 - y2_output_loss: 2.7341 -
y1_output_root_mean_squared_error: 0.9271 - y2_output_root_mean_squared_error:
1.6611 - val_loss: 2.4297 - val_y1_output_loss: 0.5461 - val_y2_output_loss:
1.8765 - val_y1_output_root_mean_squared_error: 0.7512 -
val_y2_output_root_mean_squared_error: 1.3658

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Epoch 106/500
614/614 [=====] - 0s 131us/sample - loss: 3.1504 -
y1_output_loss: 0.7179 - y2_output_loss: 2.4205 -
y1_output_root_mean_squared_error: 0.8493 - y2_output_root_mean_squared_error:
1.5586 - val_loss: 4.0586 - val_y1_output_loss: 1.4180 - val_y2_output_loss:
2.6609 - val_y1_output_root_mean_squared_error: 1.2113 -
val_y2_output_root_mean_squared_error: 1.6098
Epoch 107/500
614/614 [=====] - 0s 131us/sample - loss: 2.5796 -
y1_output_loss: 0.5955 - y2_output_loss: 2.0176 -
y1_output_root_mean_squared_error: 0.7468 - y2_output_root_mean_squared_error:
1.4219 - val_loss: 4.4763 - val_y1_output_loss: 1.8793 - val_y2_output_loss:
2.6612 - val_y1_output_root_mean_squared_error: 1.3884 -
val_y2_output_root_mean_squared_error: 1.5965
Epoch 108/500
614/614 [=====] - 0s 130us/sample - loss: 2.9715 -
y1_output_loss: 0.6715 - y2_output_loss: 2.3709 -
y1_output_root_mean_squared_error: 0.8198 - y2_output_root_mean_squared_error:
1.5164 - val_loss: 14.9028 - val_y1_output_loss: 2.4680 - val_y2_output_loss:
12.2565 - val_y1_output_root_mean_squared_error: 1.5995 -
val_y2_output_root_mean_squared_error: 3.5134
Epoch 109/500
614/614 [=====] - 0s 131us/sample - loss: 3.8553 -
y1_output_loss: 0.9843 - y2_output_loss: 2.8640 -
y1_output_root_mean_squared_error: 0.9930 - y2_output_root_mean_squared_error:
1.6939 - val_loss: 3.4957 - val_y1_output_loss: 0.9199 - val_y2_output_loss:
2.5010 - val_y1_output_root_mean_squared_error: 0.9687 -
val_y2_output_root_mean_squared_error: 1.5992
Epoch 110/500
614/614 [=====] - 0s 134us/sample - loss: 2.7808 -
y1_output_loss: 0.6169 - y2_output_loss: 2.1481 -
y1_output_root_mean_squared_error: 0.7886 - y2_output_root_mean_squared_error:
1.4693 - val_loss: 2.0445 - val_y1_output_loss: 0.5033 - val_y2_output_loss:
1.5232 - val_y1_output_root_mean_squared_error: 0.7147 -
val_y2_output_root_mean_squared_error: 1.2384
Epoch 111/500
614/614 [=====] - 0s 132us/sample - loss: 3.1274 -
y1_output_loss: 0.7439 - y2_output_loss: 2.3569 -
y1_output_root_mean_squared_error: 0.8659 - y2_output_root_mean_squared_error:
1.5419 - val_loss: 3.0719 - val_y1_output_loss: 0.5760 - val_y2_output_loss:
2.4259 - val_y1_output_root_mean_squared_error: 0.7569 -
val_y2_output_root_mean_squared_error: 1.5808
Epoch 112/500
614/614 [=====] - 0s 131us/sample - loss: 2.9917 -
y1_output_loss: 0.6321 - y2_output_loss: 2.3338 -
y1_output_root_mean_squared_error: 0.7975 - y2_output_root_mean_squared_error:
1.5348 - val_loss: 1.9606 - val_y1_output_loss: 0.5472 - val_y2_output_loss:
1.4123 - val_y1_output_root_mean_squared_error: 0.7475 -

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val_y2_output_root_mean_squared_error: 1.1840
Epoch 113/500
614/614 [=====] - 0s 131us/sample - loss: 2.6096 -
y1_output_loss: 0.5824 - y2_output_loss: 2.0267 -
y1_output_root_mean_squared_error: 0.7663 - y2_output_root_mean_squared_error:
1.4221 - val_loss: 2.7923 - val_y1_output_loss: 0.5702 - val_y2_output_loss:
2.2381 - val_y1_output_root_mean_squared_error: 0.7549 -
val_y2_output_root_mean_squared_error: 1.4908
Epoch 114/500
614/614 [=====] - 0s 136us/sample - loss: 2.7872 -
y1_output_loss: 0.7039 - y2_output_loss: 2.0717 -
y1_output_root_mean_squared_error: 0.8348 - y2_output_root_mean_squared_error:
1.4458 - val_loss: 1.9250 - val_y1_output_loss: 0.5256 - val_y2_output_loss:
1.4202 - val_y1_output_root_mean_squared_error: 0.7334 -
val_y2_output_root_mean_squared_error: 1.1778
Epoch 115/500
614/614 [=====] - 0s 136us/sample - loss: 2.9750 -
y1_output_loss: 0.6888 - y2_output_loss: 2.2601 -
y1_output_root_mean_squared_error: 0.8330 - y2_output_root_mean_squared_error:
1.5103 - val_loss: 1.9743 - val_y1_output_loss: 0.5906 - val_y2_output_loss:
1.3704 - val_y1_output_root_mean_squared_error: 0.7630 -
val_y2_output_root_mean_squared_error: 1.1799
Epoch 116/500
614/614 [=====] - 0s 139us/sample - loss: 3.0785 -
y1_output_loss: 0.7830 - y2_output_loss: 2.3363 -
y1_output_root_mean_squared_error: 0.8771 - y2_output_root_mean_squared_error:
1.5196 - val_loss: 4.5506 - val_y1_output_loss: 2.1330 - val_y2_output_loss:
2.3590 - val_y1_output_root_mean_squared_error: 1.4539 -
val_y2_output_root_mean_squared_error: 1.5610
Epoch 117/500
614/614 [=====] - 0s 142us/sample - loss: 2.8731 -
y1_output_loss: 0.8022 - y2_output_loss: 2.0876 -
y1_output_root_mean_squared_error: 0.8829 - y2_output_root_mean_squared_error:
1.4469 - val_loss: 4.8319 - val_y1_output_loss: 1.7656 - val_y2_output_loss:
3.0781 - val_y1_output_root_mean_squared_error: 1.3504 -
val_y2_output_root_mean_squared_error: 1.7345
Epoch 118/500
614/614 [=====] - 0s 131us/sample - loss: 2.7169 -
y1_output_loss: 0.6658 - y2_output_loss: 2.0457 -
y1_output_root_mean_squared_error: 0.8123 - y2_output_root_mean_squared_error:
1.4342 - val_loss: 4.1859 - val_y1_output_loss: 0.7822 - val_y2_output_loss:
3.2733 - val_y1_output_root_mean_squared_error: 0.8929 -
val_y2_output_root_mean_squared_error: 1.8408
Epoch 119/500
614/614 [=====] - 0s 129us/sample - loss: 3.2846 -
y1_output_loss: 0.6981 - y2_output_loss: 2.5654 -
y1_output_root_mean_squared_error: 0.8362 - y2_output_root_mean_squared_error:
1.6079 - val_loss: 2.0965 - val_y1_output_loss: 0.5569 - val_y2_output_loss:

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1.5145 - val_y1_output_root_mean_squared_error: 0.7580 -
 val_y2_output_root_mean_squared_error: 1.2337
 Epoch 120/500
 614/614 [=====] - 0s 130us/sample - loss: 2.5639 -
 y1_output_loss: 0.5663 - y2_output_loss: 1.9758 -
 y1_output_root_mean_squared_error: 0.7553 - y2_output_root_mean_squared_error:
 1.4119 - val_loss: 3.2506 - val_y1_output_loss: 0.8216 - val_y2_output_loss:
 2.3618 - val_y1_output_root_mean_squared_error: 0.9170 -
 val_y2_output_root_mean_squared_error: 1.5524
 Epoch 121/500
 614/614 [=====] - 0s 131us/sample - loss: 3.4533 -
 y1_output_loss: 0.8350 - y2_output_loss: 2.5976 -
 y1_output_root_mean_squared_error: 0.9140 - y2_output_root_mean_squared_error:
 1.6180 - val_loss: 3.2725 - val_y1_output_loss: 1.0081 - val_y2_output_loss:
 2.2191 - val_y1_output_root_mean_squared_error: 1.0017 -
 val_y2_output_root_mean_squared_error: 1.5064
 Epoch 122/500
 614/614 [=====] - 0s 132us/sample - loss: 2.8841 -
 y1_output_loss: 0.6561 - y2_output_loss: 2.2253 -
 y1_output_root_mean_squared_error: 0.8041 - y2_output_root_mean_squared_error:
 1.4958 - val_loss: 2.7128 - val_y1_output_loss: 1.1972 - val_y2_output_loss:
 1.4896 - val_y1_output_root_mean_squared_error: 1.1062 -
 val_y2_output_root_mean_squared_error: 1.2203
 Epoch 123/500
 614/614 [=====] - 0s 130us/sample - loss: 2.7163 -
 y1_output_loss: 0.6612 - y2_output_loss: 2.0534 -
 y1_output_root_mean_squared_error: 0.8139 - y2_output_root_mean_squared_error:
 1.4331 - val_loss: 3.3670 - val_y1_output_loss: 0.7667 - val_y2_output_loss:
 2.5815 - val_y1_output_root_mean_squared_error: 0.8861 -
 val_y2_output_root_mean_squared_error: 1.6068
 Epoch 124/500
 614/614 [=====] - 0s 132us/sample - loss: 2.0920 -
 y1_output_loss: 0.5666 - y2_output_loss: 1.5110 -
 y1_output_root_mean_squared_error: 0.7533 - y2_output_root_mean_squared_error:
 1.2347 - val_loss: 4.2644 - val_y1_output_loss: 0.5571 - val_y2_output_loss:
 3.5783 - val_y1_output_root_mean_squared_error: 0.7560 -
 val_y2_output_root_mean_squared_error: 1.9217
 Epoch 125/500
 614/614 [=====] - 0s 135us/sample - loss: 2.1586 -
 y1_output_loss: 0.4737 - y2_output_loss: 1.6860 -
 y1_output_root_mean_squared_error: 0.6891 - y2_output_root_mean_squared_error:
 1.2976 - val_loss: 1.7699 - val_y1_output_loss: 0.4130 - val_y2_output_loss:
 1.3677 - val_y1_output_root_mean_squared_error: 0.6372 -
 val_y2_output_root_mean_squared_error: 1.1679
 Epoch 126/500
 614/614 [=====] - 0s 135us/sample - loss: 3.5143 -
 y1_output_loss: 0.9218 - y2_output_loss: 2.6175 -
 y1_output_root_mean_squared_error: 0.9643 - y2_output_root_mean_squared_error:

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1.6076 - val_loss: 4.6797 - val_y1_output_loss: 0.8370 - val_y2_output_loss:
3.7631 - val_y1_output_root_mean_squared_error: 0.9238 -
val_y2_output_root_mean_squared_error: 1.9561
Epoch 127/500
614/614 [=====] - 0s 137us/sample - loss: 2.7412 -
y1_output_loss: 0.6351 - y2_output_loss: 2.0902 -
y1_output_root_mean_squared_error: 0.7984 - y2_output_root_mean_squared_error:
1.4504 - val_loss: 2.0041 - val_y1_output_loss: 0.4220 - val_y2_output_loss:
1.5488 - val_y1_output_root_mean_squared_error: 0.6487 -
val_y2_output_root_mean_squared_error: 1.2583
Epoch 128/500
614/614 [=====] - 0s 136us/sample - loss: 2.6927 -
y1_output_loss: 0.6676 - y2_output_loss: 2.0030 -
y1_output_root_mean_squared_error: 0.8207 - y2_output_root_mean_squared_error:
1.4209 - val_loss: 1.7740 - val_y1_output_loss: 0.4261 - val_y2_output_loss:
1.3435 - val_y1_output_root_mean_squared_error: 0.6605 -
val_y2_output_root_mean_squared_error: 1.1566
Epoch 129/500
614/614 [=====] - 0s 143us/sample - loss: 2.2112 -
y1_output_loss: 0.5004 - y2_output_loss: 1.6999 -
y1_output_root_mean_squared_error: 0.7059 - y2_output_root_mean_squared_error:
1.3088 - val_loss: 2.2469 - val_y1_output_loss: 0.6979 - val_y2_output_loss:
1.5089 - val_y1_output_root_mean_squared_error: 0.8481 -
val_y2_output_root_mean_squared_error: 1.2359
Epoch 130/500
614/614 [=====] - 0s 134us/sample - loss: 2.6699 -
y1_output_loss: 0.5672 - y2_output_loss: 2.1156 -
y1_output_root_mean_squared_error: 0.7550 - y2_output_root_mean_squared_error:
1.4491 - val_loss: 3.8997 - val_y1_output_loss: 0.4891 - val_y2_output_loss:
3.2870 - val_y1_output_root_mean_squared_error: 0.7054 -
val_y2_output_root_mean_squared_error: 1.8445
Epoch 131/500
614/614 [=====] - 0s 138us/sample - loss: 2.4163 -
y1_output_loss: 0.5780 - y2_output_loss: 1.8569 -
y1_output_root_mean_squared_error: 0.7598 - y2_output_root_mean_squared_error:
1.3561 - val_loss: 2.8716 - val_y1_output_loss: 0.4731 - val_y2_output_loss:
2.4122 - val_y1_output_root_mean_squared_error: 0.6925 -
val_y2_output_root_mean_squared_error: 1.5466
Epoch 132/500
614/614 [=====] - 0s 133us/sample - loss: 5.7497 -
y1_output_loss: 2.3625 - y2_output_loss: 5.2608 -
y1_output_root_mean_squared_error: 1.2797 - y2_output_root_mean_squared_error:
2.0278 - val_loss: 315.9048 - val_y1_output_loss: 103.9785 - val_y2_output_loss:
206.5085 - val_y1_output_root_mean_squared_error: 10.2968 -
val_y2_output_root_mean_squared_error: 14.4873
Epoch 133/500
614/614 [=====] - 0s 136us/sample - loss: 9.6199 -
y1_output_loss: 3.1517 - y2_output_loss: 6.3932 -

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y1_output_root_mean_squared_error: 1.7829 - y2_output_root_mean_squared_error:
 2.5380 - val_loss: 4.2899 - val_y1_output_loss: 1.2327 - val_y2_output_loss:
 2.9625 - val_y1_output_root_mean_squared_error: 1.1288 -
 val_y2_output_root_mean_squared_error: 1.7366
 Epoch 134/500
 614/614 [=====] - 0s 136us/sample - loss: 2.0093 -
 y1_output_loss: 0.4719 - y2_output_loss: 1.5362 -
 y1_output_root_mean_squared_error: 0.6892 - y2_output_root_mean_squared_error:
 1.2387 - val_loss: 2.9909 - val_y1_output_loss: 0.5039 - val_y2_output_loss:
 2.4128 - val_y1_output_root_mean_squared_error: 0.7103 -
 val_y2_output_root_mean_squared_error: 1.5768
 Epoch 135/500
 614/614 [=====] - 0s 136us/sample - loss: 2.7101 -
 y1_output_loss: 0.5149 - y2_output_loss: 2.1922 -
 y1_output_root_mean_squared_error: 0.7144 - y2_output_root_mean_squared_error:
 1.4832 - val_loss: 4.7470 - val_y1_output_loss: 0.5597 - val_y2_output_loss:
 4.0405 - val_y1_output_root_mean_squared_error: 0.7517 -
 val_y2_output_root_mean_squared_error: 2.0450
 Epoch 136/500
 614/614 [=====] - 0s 139us/sample - loss: 2.2225 -
 y1_output_loss: 0.4881 - y2_output_loss: 1.7353 -
 y1_output_root_mean_squared_error: 0.6980 - y2_output_root_mean_squared_error:
 1.3173 - val_loss: 1.8642 - val_y1_output_loss: 0.4971 - val_y2_output_loss:
 1.3562 - val_y1_output_root_mean_squared_error: 0.7115 -
 val_y2_output_root_mean_squared_error: 1.1653
 Epoch 137/500
 614/614 [=====] - 0s 152us/sample - loss: 2.7225 -
 y1_output_loss: 0.5488 - y2_output_loss: 2.1673 -
 y1_output_root_mean_squared_error: 0.7386 - y2_output_root_mean_squared_error:
 1.4755 - val_loss: 3.0936 - val_y1_output_loss: 0.9075 - val_y2_output_loss:
 2.2339 - val_y1_output_root_mean_squared_error: 0.9556 -
 val_y2_output_root_mean_squared_error: 1.4767
 Epoch 138/500
 614/614 [=====] - 0s 137us/sample - loss: 2.2479 -
 y1_output_loss: 0.5133 - y2_output_loss: 1.7475 -
 y1_output_root_mean_squared_error: 0.7125 - y2_output_root_mean_squared_error:
 1.3192 - val_loss: 2.9330 - val_y1_output_loss: 0.9390 - val_y2_output_loss:
 1.9865 - val_y1_output_root_mean_squared_error: 0.9814 -
 val_y2_output_root_mean_squared_error: 1.4035
 Epoch 139/500
 614/614 [=====] - 0s 134us/sample - loss: 2.6371 -
 y1_output_loss: 0.5164 - y2_output_loss: 2.1122 -
 y1_output_root_mean_squared_error: 0.7206 - y2_output_root_mean_squared_error:
 1.4553 - val_loss: 2.3518 - val_y1_output_loss: 0.4695 - val_y2_output_loss:
 1.9251 - val_y1_output_root_mean_squared_error: 0.6953 -
 val_y2_output_root_mean_squared_error: 1.3669
 Epoch 140/500
 614/614 [=====] - 0s 134us/sample - loss: 2.2524 -


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y1_output_loss: 0.4638 - y2_output_loss: 1.7721 -
y1_output_root_mean_squared_error: 0.6830 - y2_output_root_mean_squared_error:
1.3364 - val_loss: 1.5907 - val_y1_output_loss: 0.4182 - val_y2_output_loss:
1.1709 - val_y1_output_root_mean_squared_error: 0.6501 -
val_y2_output_root_mean_squared_error: 1.0808
Epoch 141/500
614/614 [=====] - 0s 133us/sample - loss: 1.8658 -
y1_output_loss: 0.4023 - y2_output_loss: 1.4706 -
y1_output_root_mean_squared_error: 0.6325 - y2_output_root_mean_squared_error:
1.2107 - val_loss: 2.1481 - val_y1_output_loss: 0.6937 - val_y2_output_loss:
1.4809 - val_y1_output_root_mean_squared_error: 0.8225 -
val_y2_output_root_mean_squared_error: 1.2131
Epoch 142/500
614/614 [=====] - 0s 134us/sample - loss: 2.0297 -
y1_output_loss: 0.4668 - y2_output_loss: 1.5532 -
y1_output_root_mean_squared_error: 0.6852 - y2_output_root_mean_squared_error:
1.2491 - val_loss: 2.0172 - val_y1_output_loss: 0.4815 - val_y2_output_loss:
1.5060 - val_y1_output_root_mean_squared_error: 0.6891 -
val_y2_output_root_mean_squared_error: 1.2419
Epoch 143/500
614/614 [=====] - 0s 133us/sample - loss: 1.8887 -
y1_output_loss: 0.4119 - y2_output_loss: 1.5229 -
y1_output_root_mean_squared_error: 0.6340 - y2_output_root_mean_squared_error:
1.2193 - val_loss: 7.9395 - val_y1_output_loss: 1.7861 - val_y2_output_loss:
6.0856 - val_y1_output_root_mean_squared_error: 1.3173 -
val_y2_output_root_mean_squared_error: 2.4908
Epoch 144/500
614/614 [=====] - 0s 129us/sample - loss: 2.6779 -
y1_output_loss: 0.6840 - y2_output_loss: 1.9935 -
y1_output_root_mean_squared_error: 0.8284 - y2_output_root_mean_squared_error:
1.4113 - val_loss: 7.4364 - val_y1_output_loss: 1.8134 - val_y2_output_loss:
5.5289 - val_y1_output_root_mean_squared_error: 1.3553 -
val_y2_output_root_mean_squared_error: 2.3664
Epoch 145/500
614/614 [=====] - 0s 131us/sample - loss: 2.3764 -
y1_output_loss: 0.5197 - y2_output_loss: 1.8702 -
y1_output_root_mean_squared_error: 0.7236 - y2_output_root_mean_squared_error:
1.3612 - val_loss: 3.2924 - val_y1_output_loss: 1.0573 - val_y2_output_loss:
2.1841 - val_y1_output_root_mean_squared_error: 1.0361 -
val_y2_output_root_mean_squared_error: 1.4896
Epoch 146/500
614/614 [=====] - 0s 131us/sample - loss: 2.6974 -
y1_output_loss: 0.5787 - y2_output_loss: 2.1459 -
y1_output_root_mean_squared_error: 0.7474 - y2_output_root_mean_squared_error:
1.4625 - val_loss: 2.6612 - val_y1_output_loss: 1.2066 - val_y2_output_loss:
1.4263 - val_y1_output_root_mean_squared_error: 1.0926 -
val_y2_output_root_mean_squared_error: 1.2114
Epoch 147/500

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614/614 [=====] - 0s 130us/sample - loss: 1.8510 -
y1_output_loss: 0.3782 - y2_output_loss: 1.5040 -
y1_output_root_mean_squared_error: 0.6142 - y2_output_root_mean_squared_error:
1.2140 - val_loss: 4.4363 - val_y1_output_loss: 1.2831 - val_y2_output_loss:
3.0350 - val_y1_output_root_mean_squared_error: 1.1335 -
val_y2_output_root_mean_squared_error: 1.7752
Epoch 148/500
614/614 [=====] - 0s 133us/sample - loss: 2.5045 -
y1_output_loss: 0.5832 - y2_output_loss: 1.9071 -
y1_output_root_mean_squared_error: 0.7650 - y2_output_root_mean_squared_error:
1.3854 - val_loss: 3.3183 - val_y1_output_loss: 0.9189 - val_y2_output_loss:
2.4119 - val_y1_output_root_mean_squared_error: 0.9683 -
val_y2_output_root_mean_squared_error: 1.5429
Epoch 149/500
614/614 [=====] - 0s 131us/sample - loss: 2.4953 -
y1_output_loss: 0.5619 - y2_output_loss: 1.9307 -
y1_output_root_mean_squared_error: 0.7485 - y2_output_root_mean_squared_error:
1.3910 - val_loss: 2.4219 - val_y1_output_loss: 0.6409 - val_y2_output_loss:
1.7638 - val_y1_output_root_mean_squared_error: 0.8120 -
val_y2_output_root_mean_squared_error: 1.3276
Epoch 150/500
614/614 [=====] - 0s 134us/sample - loss: 2.2154 -
y1_output_loss: 0.4091 - y2_output_loss: 1.8112 -
y1_output_root_mean_squared_error: 0.6405 - y2_output_root_mean_squared_error:
1.3436 - val_loss: 6.4616 - val_y1_output_loss: 1.6470 - val_y2_output_loss:
4.6334 - val_y1_output_root_mean_squared_error: 1.2962 -
val_y2_output_root_mean_squared_error: 2.1867
Epoch 151/500
614/614 [=====] - 0s 134us/sample - loss: 2.2158 -
y1_output_loss: 0.4418 - y2_output_loss: 1.7605 -
y1_output_root_mean_squared_error: 0.6659 - y2_output_root_mean_squared_error:
1.3313 - val_loss: 1.9842 - val_y1_output_loss: 0.4771 - val_y2_output_loss:
1.4821 - val_y1_output_root_mean_squared_error: 0.6892 -
val_y2_output_root_mean_squared_error: 1.2285
Epoch 152/500
614/614 [=====] - 0s 131us/sample - loss: 2.0102 -
y1_output_loss: 0.4406 - y2_output_loss: 1.5543 -
y1_output_root_mean_squared_error: 0.6658 - y2_output_root_mean_squared_error:
1.2517 - val_loss: 1.3341 - val_y1_output_loss: 0.3182 - val_y2_output_loss:
1.0115 - val_y1_output_root_mean_squared_error: 0.5641 -
val_y2_output_root_mean_squared_error: 1.0079
Epoch 153/500
614/614 [=====] - 0s 136us/sample - loss: 2.2514 -
y1_output_loss: 0.4657 - y2_output_loss: 1.7676 -
y1_output_root_mean_squared_error: 0.6839 - y2_output_root_mean_squared_error:
1.3355 - val_loss: 3.1732 - val_y1_output_loss: 0.4417 - val_y2_output_loss:
2.6385 - val_y1_output_root_mean_squared_error: 0.6629 -
val_y2_output_root_mean_squared_error: 1.6534

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Epoch 154/500
614/614 [=====] - 0s 134us/sample - loss: 1.8656 -
y1_output_loss: 0.3887 - y2_output_loss: 1.4898 -
y1_output_root_mean_squared_error: 0.6205 - y2_output_root_mean_squared_error:
1.2168 - val_loss: 4.9877 - val_y1_output_loss: 1.5673 - val_y2_output_loss:
3.2701 - val_y1_output_root_mean_squared_error: 1.2699 -
val_y2_output_root_mean_squared_error: 1.8371
Epoch 155/500
614/614 [=====] - 0s 131us/sample - loss: 2.2269 -
y1_output_loss: 0.4563 - y2_output_loss: 1.7551 -
y1_output_root_mean_squared_error: 0.6760 - y2_output_root_mean_squared_error:
1.3304 - val_loss: 1.5525 - val_y1_output_loss: 0.3715 - val_y2_output_loss:
1.1567 - val_y1_output_root_mean_squared_error: 0.6066 -
val_y2_output_root_mean_squared_error: 1.0883
Epoch 156/500
614/614 [=====] - 0s 130us/sample - loss: 2.1011 -
y1_output_loss: 0.4240 - y2_output_loss: 1.6953 -
y1_output_root_mean_squared_error: 0.6471 - y2_output_root_mean_squared_error:
1.2970 - val_loss: 2.2843 - val_y1_output_loss: 0.5215 - val_y2_output_loss:
1.7305 - val_y1_output_root_mean_squared_error: 0.7310 -
val_y2_output_root_mean_squared_error: 1.3229
Epoch 157/500
614/614 [=====] - 0s 130us/sample - loss: 2.2386 -
y1_output_loss: 0.4381 - y2_output_loss: 1.8013 -
y1_output_root_mean_squared_error: 0.6642 - y2_output_root_mean_squared_error:
1.3406 - val_loss: 1.9300 - val_y1_output_loss: 0.4968 - val_y2_output_loss:
1.3780 - val_y1_output_root_mean_squared_error: 0.7136 -
val_y2_output_root_mean_squared_error: 1.1919
Epoch 158/500
614/614 [=====] - 0s 135us/sample - loss: 2.0239 -
y1_output_loss: 0.4008 - y2_output_loss: 1.6368 -
y1_output_root_mean_squared_error: 0.6358 - y2_output_root_mean_squared_error:
1.2727 - val_loss: 3.3025 - val_y1_output_loss: 0.3508 - val_y2_output_loss:
2.9549 - val_y1_output_root_mean_squared_error: 0.5987 -
val_y2_output_root_mean_squared_error: 1.7158
Epoch 159/500
614/614 [=====] - 0s 137us/sample - loss: 1.7179 -
y1_output_loss: 0.3523 - y2_output_loss: 1.3579 -
y1_output_root_mean_squared_error: 0.5939 - y2_output_root_mean_squared_error:
1.1684 - val_loss: 2.5351 - val_y1_output_loss: 0.5251 - val_y2_output_loss:
1.9405 - val_y1_output_root_mean_squared_error: 0.7314 -
val_y2_output_root_mean_squared_error: 1.4143
Epoch 160/500
614/614 [=====] - 0s 129us/sample - loss: 2.1950 -
y1_output_loss: 0.4213 - y2_output_loss: 1.7614 -
y1_output_root_mean_squared_error: 0.6476 - y2_output_root_mean_squared_error:
1.3325 - val_loss: 1.6319 - val_y1_output_loss: 0.4663 - val_y2_output_loss:
1.1567 - val_y1_output_root_mean_squared_error: 0.6640 -

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val_y2_output_root_mean_squared_error: 1.0913
Epoch 161/500
614/614 [=====] - 0s 128us/sample - loss: 1.9496 -
y1_output_loss: 0.4212 - y2_output_loss: 1.5189 -
y1_output_root_mean_squared_error: 0.6509 - y2_output_root_mean_squared_error:
1.2353 - val_loss: 1.7049 - val_y1_output_loss: 0.5511 - val_y2_output_loss:
1.1274 - val_y1_output_root_mean_squared_error: 0.7524 -
val_y2_output_root_mean_squared_error: 1.0672
Epoch 162/500
614/614 [=====] - 0s 132us/sample - loss: 1.7527 -
y1_output_loss: 0.3553 - y2_output_loss: 1.3857 -
y1_output_root_mean_squared_error: 0.5988 - y2_output_root_mean_squared_error:
1.1807 - val_loss: 1.9392 - val_y1_output_loss: 0.6210 - val_y2_output_loss:
1.2929 - val_y1_output_root_mean_squared_error: 0.7900 -
val_y2_output_root_mean_squared_error: 1.1468
Epoch 163/500
614/614 [=====] - 0s 133us/sample - loss: 1.6663 -
y1_output_loss: 0.3063 - y2_output_loss: 1.3513 -
y1_output_root_mean_squared_error: 0.5550 - y2_output_root_mean_squared_error:
1.1655 - val_loss: 2.1083 - val_y1_output_loss: 0.4583 - val_y2_output_loss:
1.6405 - val_y1_output_root_mean_squared_error: 0.6741 -
val_y2_output_root_mean_squared_error: 1.2861
Epoch 164/500
614/614 [=====] - 0s 130us/sample - loss: 1.8894 -
y1_output_loss: 0.3732 - y2_output_loss: 1.5209 -
y1_output_root_mean_squared_error: 0.6073 - y2_output_root_mean_squared_error:
1.2331 - val_loss: 2.6557 - val_y1_output_loss: 0.3317 - val_y2_output_loss:
2.2528 - val_y1_output_root_mean_squared_error: 0.5801 -
val_y2_output_root_mean_squared_error: 1.5229
Epoch 165/500
614/614 [=====] - 0s 134us/sample - loss: 1.5566 -
y1_output_loss: 0.3416 - y2_output_loss: 1.2064 -
y1_output_root_mean_squared_error: 0.5859 - y2_output_root_mean_squared_error:
1.1015 - val_loss: 1.8777 - val_y1_output_loss: 0.4243 - val_y2_output_loss:
1.4402 - val_y1_output_root_mean_squared_error: 0.6611 -
val_y2_output_root_mean_squared_error: 1.2003
Epoch 166/500
614/614 [=====] - 0s 132us/sample - loss: 2.4289 -
y1_output_loss: 0.5072 - y2_output_loss: 1.9052 -
y1_output_root_mean_squared_error: 0.7144 - y2_output_root_mean_squared_error:
1.3851 - val_loss: 2.2331 - val_y1_output_loss: 0.5312 - val_y2_output_loss:
1.6687 - val_y1_output_root_mean_squared_error: 0.7328 -
val_y2_output_root_mean_squared_error: 1.3023
Epoch 167/500
614/614 [=====] - 0s 128us/sample - loss: 2.8782 -
y1_output_loss: 0.5802 - y2_output_loss: 2.3089 -
y1_output_root_mean_squared_error: 0.7618 - y2_output_root_mean_squared_error:
1.5159 - val_loss: 7.8577 - val_y1_output_loss: 2.4418 - val_y2_output_loss:

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5.1928 - val_y1_output_root_mean_squared_error: 1.5905 -
 val_y2_output_root_mean_squared_error: 2.3083
 Epoch 168/500
 614/614 [=====] - 0s 129us/sample - loss: 2.1255 -
 y1_output_loss: 0.4333 - y2_output_loss: 1.6837 -
 y1_output_root_mean_squared_error: 0.6613 - y2_output_root_mean_squared_error:
 1.2993 - val_loss: 13.7033 - val_y1_output_loss: 2.8295 - val_y2_output_loss:
 10.4413 - val_y1_output_root_mean_squared_error: 1.7045 -
 val_y2_output_root_mean_squared_error: 3.2860
 Epoch 169/500
 614/614 [=====] - 0s 130us/sample - loss: 1.8885 -
 y1_output_loss: 0.4472 - y2_output_loss: 1.4294 -
 y1_output_root_mean_squared_error: 0.6697 - y2_output_root_mean_squared_error:
 1.2000 - val_loss: 1.5622 - val_y1_output_loss: 0.4983 - val_y2_output_loss:
 1.0517 - val_y1_output_root_mean_squared_error: 0.7189 -
 val_y2_output_root_mean_squared_error: 1.0224
 Epoch 170/500
 614/614 [=====] - 0s 132us/sample - loss: 1.5635 -
 y1_output_loss: 0.3394 - y2_output_loss: 1.2658 -
 y1_output_root_mean_squared_error: 0.5830 - y2_output_root_mean_squared_error:
 1.1062 - val_loss: 2.0331 - val_y1_output_loss: 0.5537 - val_y2_output_loss:
 1.4416 - val_y1_output_root_mean_squared_error: 0.7444 -
 val_y2_output_root_mean_squared_error: 1.2161
 Epoch 171/500
 614/614 [=====] - 0s 131us/sample - loss: 1.4995 -
 y1_output_loss: 0.3138 - y2_output_loss: 1.1778 -
 y1_output_root_mean_squared_error: 0.5625 - y2_output_root_mean_squared_error:
 1.0877 - val_loss: 2.2155 - val_y1_output_loss: 0.5035 - val_y2_output_loss:
 1.6972 - val_y1_output_root_mean_squared_error: 0.7224 -
 val_y2_output_root_mean_squared_error: 1.3014
 Epoch 172/500
 614/614 [=====] - 0s 131us/sample - loss: 1.8862 -
 y1_output_loss: 0.3611 - y2_output_loss: 1.5644 -
 y1_output_root_mean_squared_error: 0.6010 - y2_output_root_mean_squared_error:
 1.2349 - val_loss: 14.7515 - val_y1_output_loss: 1.9887 - val_y2_output_loss:
 12.3300 - val_y1_output_root_mean_squared_error: 1.4209 -
 val_y2_output_root_mean_squared_error: 3.5683
 Epoch 173/500
 614/614 [=====] - 0s 131us/sample - loss: 2.1941 -
 y1_output_loss: 0.5319 - y2_output_loss: 1.6838 -
 y1_output_root_mean_squared_error: 0.7294 - y2_output_root_mean_squared_error:
 1.2892 - val_loss: 5.2123 - val_y1_output_loss: 0.3214 - val_y2_output_loss:
 4.7398 - val_y1_output_root_mean_squared_error: 0.5697 -
 val_y2_output_root_mean_squared_error: 2.2108
 Epoch 174/500
 614/614 [=====] - 0s 136us/sample - loss: 1.7877 -
 y1_output_loss: 0.3419 - y2_output_loss: 1.4373 -
 y1_output_root_mean_squared_error: 0.5844 - y2_output_root_mean_squared_error:

1.2026 - val_loss: 2.1176 - val_y1_output_loss: 0.3195 - val_y2_output_loss:
 1.7490 - val_y1_output_root_mean_squared_error: 0.5629 -
 val_y2_output_root_mean_squared_error: 1.3419
 Epoch 175/500
 614/614 [=====] - 0s 137us/sample - loss: 1.6115 -
 y1_output_loss: 0.3028 - y2_output_loss: 1.2964 -
 y1_output_root_mean_squared_error: 0.5509 - y2_output_root_mean_squared_error:
 1.1437 - val_loss: 1.4352 - val_y1_output_loss: 0.2936 - val_y2_output_loss:
 1.1116 - val_y1_output_root_mean_squared_error: 0.5355 -
 val_y2_output_root_mean_squared_error: 1.0717
 Epoch 176/500
 614/614 [=====] - 0s 139us/sample - loss: 1.3826 -
 y1_output_loss: 0.2945 - y2_output_loss: 1.0821 -
 y1_output_root_mean_squared_error: 0.5400 - y2_output_root_mean_squared_error:
 1.0445 - val_loss: 1.3977 - val_y1_output_loss: 0.2878 - val_y2_output_loss:
 1.0890 - val_y1_output_root_mean_squared_error: 0.5428 -
 val_y2_output_root_mean_squared_error: 1.0503
 Epoch 177/500
 614/614 [=====] - 0s 135us/sample - loss: 2.0506 -
 y1_output_loss: 0.4527 - y2_output_loss: 1.5876 -
 y1_output_root_mean_squared_error: 0.6724 - y2_output_root_mean_squared_error:
 1.2643 - val_loss: 2.4066 - val_y1_output_loss: 0.6416 - val_y2_output_loss:
 1.7963 - val_y1_output_root_mean_squared_error: 0.7811 -
 val_y2_output_root_mean_squared_error: 1.3404
 Epoch 178/500
 614/614 [=====] - 0s 134us/sample - loss: 2.1647 -
 y1_output_loss: 0.3968 - y2_output_loss: 1.7560 -
 y1_output_root_mean_squared_error: 0.6296 - y2_output_root_mean_squared_error:
 1.3298 - val_loss: 1.7706 - val_y1_output_loss: 0.4762 - val_y2_output_loss:
 1.2871 - val_y1_output_root_mean_squared_error: 0.6926 -
 val_y2_output_root_mean_squared_error: 1.1362
 Epoch 179/500
 614/614 [=====] - 0s 132us/sample - loss: 1.9038 -
 y1_output_loss: 0.3639 - y2_output_loss: 1.5273 -
 y1_output_root_mean_squared_error: 0.6053 - y2_output_root_mean_squared_error:
 1.2399 - val_loss: 1.3134 - val_y1_output_loss: 0.2689 - val_y2_output_loss:
 1.0381 - val_y1_output_root_mean_squared_error: 0.5241 -
 val_y2_output_root_mean_squared_error: 1.0192
 Epoch 180/500
 614/614 [=====] - 0s 132us/sample - loss: 1.6294 -
 y1_output_loss: 0.3357 - y2_output_loss: 1.2922 -
 y1_output_root_mean_squared_error: 0.5798 - y2_output_root_mean_squared_error:
 1.1372 - val_loss: 1.4331 - val_y1_output_loss: 0.3114 - val_y2_output_loss:
 1.1255 - val_y1_output_root_mean_squared_error: 0.5669 -
 val_y2_output_root_mean_squared_error: 1.0544
 Epoch 181/500
 614/614 [=====] - 0s 136us/sample - loss: 1.7599 -
 y1_output_loss: 0.3100 - y2_output_loss: 1.4355 -

y1_output_root_mean_squared_error: 0.5584 - y2_output_root_mean_squared_error:
 1.2034 - val_loss: 1.4757 - val_y1_output_loss: 0.2789 - val_y2_output_loss:
 1.1699 - val_y1_output_root_mean_squared_error: 0.5278 -
 val_y2_output_root_mean_squared_error: 1.0941
 Epoch 182/500
 614/614 [=====] - 0s 131us/sample - loss: 1.5772 -
 y1_output_loss: 0.2949 - y2_output_loss: 1.2726 -
 y1_output_root_mean_squared_error: 0.5454 - y2_output_root_mean_squared_error:
 1.1313 - val_loss: 1.8514 - val_y1_output_loss: 0.3718 - val_y2_output_loss:
 1.4595 - val_y1_output_root_mean_squared_error: 0.6189 -
 val_y2_output_root_mean_squared_error: 1.2118
 Epoch 183/500
 614/614 [=====] - 0s 137us/sample - loss: 1.7498 -
 y1_output_loss: 0.3649 - y2_output_loss: 1.3777 -
 y1_output_root_mean_squared_error: 0.6045 - y2_output_root_mean_squared_error:
 1.1766 - val_loss: 1.8521 - val_y1_output_loss: 0.3530 - val_y2_output_loss:
 1.4583 - val_y1_output_root_mean_squared_error: 0.5842 -
 val_y2_output_root_mean_squared_error: 1.2292
 Epoch 184/500
 614/614 [=====] - 0s 141us/sample - loss: 1.9792 -
 y1_output_loss: 0.3608 - y2_output_loss: 1.6141 -
 y1_output_root_mean_squared_error: 0.5989 - y2_output_root_mean_squared_error:
 1.2730 - val_loss: 2.9377 - val_y1_output_loss: 0.5687 - val_y2_output_loss:
 2.3409 - val_y1_output_root_mean_squared_error: 0.7667 -
 val_y2_output_root_mean_squared_error: 1.5329
 Epoch 185/500
 614/614 [=====] - 0s 138us/sample - loss: 1.6784 -
 y1_output_loss: 0.3345 - y2_output_loss: 1.3672 -
 y1_output_root_mean_squared_error: 0.5804 - y2_output_root_mean_squared_error:
 1.1582 - val_loss: 8.0775 - val_y1_output_loss: 0.7605 - val_y2_output_loss:
 7.0547 - val_y1_output_root_mean_squared_error: 0.8786 -
 val_y2_output_root_mean_squared_error: 2.7029
 Epoch 186/500
 614/614 [=====] - 0s 145us/sample - loss: 1.8524 -
 y1_output_loss: 0.3794 - y2_output_loss: 1.4590 -
 y1_output_root_mean_squared_error: 0.6181 - y2_output_root_mean_squared_error:
 1.2126 - val_loss: 1.3192 - val_y1_output_loss: 0.2544 - val_y2_output_loss:
 1.0593 - val_y1_output_root_mean_squared_error: 0.5034 -
 val_y2_output_root_mean_squared_error: 1.0323
 Epoch 187/500
 614/614 [=====] - 0s 132us/sample - loss: 1.8079 -
 y1_output_loss: 0.4013 - y2_output_loss: 1.3905 -
 y1_output_root_mean_squared_error: 0.6360 - y2_output_root_mean_squared_error:
 1.1846 - val_loss: 1.1982 - val_y1_output_loss: 0.2398 - val_y2_output_loss:
 0.9403 - val_y1_output_root_mean_squared_error: 0.4867 -
 val_y2_output_root_mean_squared_error: 0.9805
 Epoch 188/500
 614/614 [=====] - 0s 131us/sample - loss: 1.4229 -

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y1_output_loss: 0.2961 - y2_output_loss: 1.1336 -
y1_output_root_mean_squared_error: 0.5418 - y2_output_root_mean_squared_error:
1.0627 - val_loss: 3.6835 - val_y1_output_loss: 0.5563 - val_y2_output_loss:
3.0867 - val_y1_output_root_mean_squared_error: 0.7583 -
val_y2_output_root_mean_squared_error: 1.7631
Epoch 189/500
614/614 [=====] - 0s 139us/sample - loss: 1.4681 -
y1_output_loss: 0.2854 - y2_output_loss: 1.1953 -
y1_output_root_mean_squared_error: 0.5350 - y2_output_root_mean_squared_error:
1.0872 - val_loss: 4.2410 - val_y1_output_loss: 0.8697 - val_y2_output_loss:
3.2775 - val_y1_output_root_mean_squared_error: 0.9235 -
val_y2_output_root_mean_squared_error: 1.8407
Epoch 190/500
614/614 [=====] - 0s 137us/sample - loss: 1.9639 -
y1_output_loss: 0.4919 - y2_output_loss: 1.5294 -
y1_output_root_mean_squared_error: 0.6887 - y2_output_root_mean_squared_error:
1.2205 - val_loss: 5.1171 - val_y1_output_loss: 1.7474 - val_y2_output_loss:
3.4043 - val_y1_output_root_mean_squared_error: 1.3164 -
val_y2_output_root_mean_squared_error: 1.8397
Epoch 191/500
614/614 [=====] - 0s 139us/sample - loss: 1.9966 -
y1_output_loss: 0.4278 - y2_output_loss: 1.5561 -
y1_output_root_mean_squared_error: 0.6561 - y2_output_root_mean_squared_error:
1.2514 - val_loss: 2.0845 - val_y1_output_loss: 0.3901 - val_y2_output_loss:
1.6782 - val_y1_output_root_mean_squared_error: 0.6298 -
val_y2_output_root_mean_squared_error: 1.2992
Epoch 192/500
614/614 [=====] - 0s 131us/sample - loss: 1.7968 -
y1_output_loss: 0.4219 - y2_output_loss: 1.3607 -
y1_output_root_mean_squared_error: 0.6518 - y2_output_root_mean_squared_error:
1.1713 - val_loss: 1.1494 - val_y1_output_loss: 0.2373 - val_y2_output_loss:
0.9163 - val_y1_output_root_mean_squared_error: 0.4866 -
val_y2_output_root_mean_squared_error: 0.9553
Epoch 193/500
614/614 [=====] - 0s 131us/sample - loss: 1.6950 -
y1_output_loss: 0.3381 - y2_output_loss: 1.3419 -
y1_output_root_mean_squared_error: 0.5838 - y2_output_root_mean_squared_error:
1.1637 - val_loss: 1.2699 - val_y1_output_loss: 0.2780 - val_y2_output_loss:
0.9914 - val_y1_output_root_mean_squared_error: 0.5258 -
val_y2_output_root_mean_squared_error: 0.9967
Epoch 194/500
614/614 [=====] - 0s 131us/sample - loss: 1.3485 -
y1_output_loss: 0.2693 - y2_output_loss: 1.0701 -
y1_output_root_mean_squared_error: 0.5198 - y2_output_root_mean_squared_error:
1.0384 - val_loss: 1.2006 - val_y1_output_loss: 0.2526 - val_y2_output_loss:
0.9197 - val_y1_output_root_mean_squared_error: 0.5020 -
val_y2_output_root_mean_squared_error: 0.9739
Epoch 195/500

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614/614 [=====] - 0s 161us/sample - loss: 1.6028 -
y1_output_loss: 0.2788 - y2_output_loss: 1.3162 -
y1_output_root_mean_squared_error: 0.5290 - y2_output_root_mean_squared_error:
1.1502 - val_loss: 1.2802 - val_y1_output_loss: 0.3492 - val_y2_output_loss:
0.9212 - val_y1_output_root_mean_squared_error: 0.5861 -
val_y2_output_root_mean_squared_error: 0.9678
Epoch 196/500
614/614 [=====] - 0s 147us/sample - loss: 1.2177 -
y1_output_loss: 0.2406 - y2_output_loss: 0.9691 -
y1_output_root_mean_squared_error: 0.4897 - y2_output_root_mean_squared_error:
0.9889 - val_loss: 1.1833 - val_y1_output_loss: 0.2212 - val_y2_output_loss:
0.9401 - val_y1_output_root_mean_squared_error: 0.4729 -
val_y2_output_root_mean_squared_error: 0.9796
Epoch 197/500
614/614 [=====] - 0s 142us/sample - loss: 1.8424 -
y1_output_loss: 0.3299 - y2_output_loss: 1.5058 -
y1_output_root_mean_squared_error: 0.5756 - y2_output_root_mean_squared_error:
1.2293 - val_loss: 1.3562 - val_y1_output_loss: 0.3101 - val_y2_output_loss:
1.0273 - val_y1_output_root_mean_squared_error: 0.5525 -
val_y2_output_root_mean_squared_error: 1.0251
Epoch 198/500
614/614 [=====] - 0s 137us/sample - loss: 1.4432 -
y1_output_loss: 0.2905 - y2_output_loss: 1.1485 -
y1_output_root_mean_squared_error: 0.5394 - y2_output_root_mean_squared_error:
1.0734 - val_loss: 3.3266 - val_y1_output_loss: 0.5591 - val_y2_output_loss:
2.6814 - val_y1_output_root_mean_squared_error: 0.7461 -
val_y2_output_root_mean_squared_error: 1.6643
Epoch 199/500
614/614 [=====] - 0s 132us/sample - loss: 1.4474 -
y1_output_loss: 0.3257 - y2_output_loss: 1.1094 -
y1_output_root_mean_squared_error: 0.5728 - y2_output_root_mean_squared_error:
1.0579 - val_loss: 1.2717 - val_y1_output_loss: 0.2526 - val_y2_output_loss:
1.0037 - val_y1_output_root_mean_squared_error: 0.4984 -
val_y2_output_root_mean_squared_error: 1.0116
Epoch 200/500
614/614 [=====] - 0s 134us/sample - loss: 1.7668 -
y1_output_loss: 0.3018 - y2_output_loss: 1.4502 -
y1_output_root_mean_squared_error: 0.5514 - y2_output_root_mean_squared_error:
1.2094 - val_loss: 1.0969 - val_y1_output_loss: 0.2316 - val_y2_output_loss:
0.8495 - val_y1_output_root_mean_squared_error: 0.4839 -
val_y2_output_root_mean_squared_error: 0.9289
Epoch 201/500
614/614 [=====] - 0s 137us/sample - loss: 2.3993 -
y1_output_loss: 0.4669 - y2_output_loss: 1.9399 -
y1_output_root_mean_squared_error: 0.6826 - y2_output_root_mean_squared_error:
1.3905 - val_loss: 3.1022 - val_y1_output_loss: 0.6574 - val_y2_output_loss:
2.3539 - val_y1_output_root_mean_squared_error: 0.8112 -
val_y2_output_root_mean_squared_error: 1.5634

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Epoch 202/500

614/614 [=====] - 0s 134us/sample - loss: 1.3986 -
y1_output_loss: 0.2882 - y2_output_loss: 1.1031 -
y1_output_root_mean_squared_error: 0.5376 - y2_output_root_mean_squared_error:
1.0534 - val_loss: 1.8536 - val_y1_output_loss: 0.3365 - val_y2_output_loss:
1.5303 - val_y1_output_root_mean_squared_error: 0.5861 -
val_y2_output_root_mean_squared_error: 1.2288

Epoch 203/500

614/614 [=====] - 0s 134us/sample - loss: 1.8089 -
y1_output_loss: 0.3504 - y2_output_loss: 1.4580 -
y1_output_root_mean_squared_error: 0.5939 - y2_output_root_mean_squared_error:
1.2067 - val_loss: 3.1183 - val_y1_output_loss: 0.4425 - val_y2_output_loss:
2.5839 - val_y1_output_root_mean_squared_error: 0.6689 -
val_y2_output_root_mean_squared_error: 1.6343

Epoch 204/500

614/614 [=====] - 0s 131us/sample - loss: 2.0991 -
y1_output_loss: 0.3768 - y2_output_loss: 1.7199 -
y1_output_root_mean_squared_error: 0.6152 - y2_output_root_mean_squared_error:
1.3117 - val_loss: 4.7122 - val_y1_output_loss: 0.4148 - val_y2_output_loss:
4.1426 - val_y1_output_root_mean_squared_error: 0.6439 -
val_y2_output_root_mean_squared_error: 2.0731

Epoch 205/500

614/614 [=====] - 0s 143us/sample - loss: 1.4187 -
y1_output_loss: 0.2664 - y2_output_loss: 1.1821 -
y1_output_root_mean_squared_error: 0.5102 - y2_output_root_mean_squared_error:
1.0763 - val_loss: 9.3342 - val_y1_output_loss: 2.4538 - val_y2_output_loss:
6.8250 - val_y1_output_root_mean_squared_error: 1.5884 -
val_y2_output_root_mean_squared_error: 2.6098

Epoch 206/500

614/614 [=====] - 0s 130us/sample - loss: 1.2844 -
y1_output_loss: 0.2599 - y2_output_loss: 1.0258 -
y1_output_root_mean_squared_error: 0.5101 - y2_output_root_mean_squared_error:
1.0120 - val_loss: 1.2634 - val_y1_output_loss: 0.2913 - val_y2_output_loss:
0.9532 - val_y1_output_root_mean_squared_error: 0.5418 -
val_y2_output_root_mean_squared_error: 0.9848

Epoch 207/500

614/614 [=====] - 0s 129us/sample - loss: 1.1927 -
y1_output_loss: 0.2552 - y2_output_loss: 0.9328 -
y1_output_root_mean_squared_error: 0.5027 - y2_output_root_mean_squared_error:
0.9695 - val_loss: 1.5914 - val_y1_output_loss: 0.4406 - val_y2_output_loss:
1.1320 - val_y1_output_root_mean_squared_error: 0.6760 -
val_y2_output_root_mean_squared_error: 1.0651

Epoch 208/500

614/614 [=====] - 0s 132us/sample - loss: 1.4427 -
y1_output_loss: 0.2546 - y2_output_loss: 1.1835 -
y1_output_root_mean_squared_error: 0.5051 - y2_output_root_mean_squared_error:
1.0898 - val_loss: 1.2841 - val_y1_output_loss: 0.2794 - val_y2_output_loss:
1.0013 - val_y1_output_root_mean_squared_error: 0.5321 -

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val_y2_output_root_mean_squared_error: 1.0005
Epoch 209/500
614/614 [=====] - 0s 130us/sample - loss: 1.3979 -
y1_output_loss: 0.2904 - y2_output_loss: 1.1212 -
y1_output_root_mean_squared_error: 0.5401 - y2_output_root_mean_squared_error:
1.0518 - val_loss: 1.9364 - val_y1_output_loss: 0.4303 - val_y2_output_loss:
1.5129 - val_y1_output_root_mean_squared_error: 0.6519 -
val_y2_output_root_mean_squared_error: 1.2294
Epoch 210/500
614/614 [=====] - 0s 133us/sample - loss: 1.3589 -
y1_output_loss: 0.2722 - y2_output_loss: 1.0777 -
y1_output_root_mean_squared_error: 0.5223 - y2_output_root_mean_squared_error:
1.0422 - val_loss: 1.2201 - val_y1_output_loss: 0.2120 - val_y2_output_loss:
0.9968 - val_y1_output_root_mean_squared_error: 0.4604 -
val_y2_output_root_mean_squared_error: 1.0041
Epoch 211/500
614/614 [=====] - 0s 139us/sample - loss: 1.3626 -
y1_output_loss: 0.3127 - y2_output_loss: 1.0491 -
y1_output_root_mean_squared_error: 0.5541 - y2_output_root_mean_squared_error:
1.0274 - val_loss: 1.4792 - val_y1_output_loss: 0.3537 - val_y2_output_loss:
1.1288 - val_y1_output_root_mean_squared_error: 0.5876 -
val_y2_output_root_mean_squared_error: 1.0648
Epoch 212/500
614/614 [=====] - 0s 134us/sample - loss: 2.3977 -
y1_output_loss: 0.4845 - y2_output_loss: 1.8989 -
y1_output_root_mean_squared_error: 0.6979 - y2_output_root_mean_squared_error:
1.3823 - val_loss: 1.2859 - val_y1_output_loss: 0.2710 - val_y2_output_loss:
1.0124 - val_y1_output_root_mean_squared_error: 0.5298 -
val_y2_output_root_mean_squared_error: 1.0026
Epoch 213/500
614/614 [=====] - 0s 145us/sample - loss: 1.2397 -
y1_output_loss: 0.2484 - y2_output_loss: 0.9801 -
y1_output_root_mean_squared_error: 0.5003 - y2_output_root_mean_squared_error:
0.9947 - val_loss: 1.0749 - val_y1_output_loss: 0.2040 - val_y2_output_loss:
0.8500 - val_y1_output_root_mean_squared_error: 0.4537 -
val_y2_output_root_mean_squared_error: 0.9323
Epoch 214/500
614/614 [=====] - 0s 137us/sample - loss: 1.4388 -
y1_output_loss: 0.2634 - y2_output_loss: 1.1774 -
y1_output_root_mean_squared_error: 0.5141 - y2_output_root_mean_squared_error:
1.0837 - val_loss: 1.9956 - val_y1_output_loss: 0.4594 - val_y2_output_loss:
1.5062 - val_y1_output_root_mean_squared_error: 0.6806 -
val_y2_output_root_mean_squared_error: 1.2379
Epoch 215/500
614/614 [=====] - 0s 135us/sample - loss: 1.3785 -
y1_output_loss: 0.2673 - y2_output_loss: 1.1016 -
y1_output_root_mean_squared_error: 0.5181 - y2_output_root_mean_squared_error:
1.0536 - val_loss: 1.6230 - val_y1_output_loss: 0.3920 - val_y2_output_loss:

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1.2044 - val_y1_output_root_mean_squared_error: 0.6250 -
 val_y2_output_root_mean_squared_error: 1.1102
 Epoch 216/500
 614/614 [=====] - 0s 131us/sample - loss: 1.3018 -
 y1_output_loss: 0.3372 - y2_output_loss: 0.9676 -
 y1_output_root_mean_squared_error: 0.5802 - y2_output_root_mean_squared_error:
 0.9824 - val_loss: 1.2668 - val_y1_output_loss: 0.2364 - val_y2_output_loss:
 1.0280 - val_y1_output_root_mean_squared_error: 0.4875 -
 val_y2_output_root_mean_squared_error: 1.0144
 Epoch 217/500
 614/614 [=====] - 0s 130us/sample - loss: 1.6872 -
 y1_output_loss: 0.3445 - y2_output_loss: 1.3783 -
 y1_output_root_mean_squared_error: 0.5865 - y2_output_root_mean_squared_error:
 1.1589 - val_loss: 6.7653 - val_y1_output_loss: 1.2858 - val_y2_output_loss:
 5.3400 - val_y1_output_root_mean_squared_error: 1.1280 -
 val_y2_output_root_mean_squared_error: 2.3437
 Epoch 218/500
 614/614 [=====] - 0s 133us/sample - loss: 1.4149 -
 y1_output_loss: 0.2813 - y2_output_loss: 1.1357 -
 y1_output_root_mean_squared_error: 0.5324 - y2_output_root_mean_squared_error:
 1.0637 - val_loss: 1.4362 - val_y1_output_loss: 0.3158 - val_y2_output_loss:
 1.1129 - val_y1_output_root_mean_squared_error: 0.5705 -
 val_y2_output_root_mean_squared_error: 1.0539
 Epoch 219/500
 614/614 [=====] - 0s 135us/sample - loss: 1.8324 -
 y1_output_loss: 0.3883 - y2_output_loss: 1.4321 -
 y1_output_root_mean_squared_error: 0.6227 - y2_output_root_mean_squared_error:
 1.2019 - val_loss: 1.2129 - val_y1_output_loss: 0.2911 - val_y2_output_loss:
 0.8979 - val_y1_output_root_mean_squared_error: 0.5422 -
 val_y2_output_root_mean_squared_error: 0.9586
 Epoch 220/500
 614/614 [=====] - 0s 132us/sample - loss: 1.3207 -
 y1_output_loss: 0.2471 - y2_output_loss: 1.0814 -
 y1_output_root_mean_squared_error: 0.4923 - y2_output_root_mean_squared_error:
 1.0384 - val_loss: 4.9094 - val_y1_output_loss: 1.6044 - val_y2_output_loss:
 3.1697 - val_y1_output_root_mean_squared_error: 1.2901 -
 val_y2_output_root_mean_squared_error: 1.8014
 Epoch 221/500
 614/614 [=====] - 0s 135us/sample - loss: 1.4206 -
 y1_output_loss: 0.2931 - y2_output_loss: 1.1183 -
 y1_output_root_mean_squared_error: 0.5418 - y2_output_root_mean_squared_error:
 1.0616 - val_loss: 1.2675 - val_y1_output_loss: 0.2590 - val_y2_output_loss:
 0.9998 - val_y1_output_root_mean_squared_error: 0.5108 -
 val_y2_output_root_mean_squared_error: 1.0033
 Epoch 222/500
 614/614 [=====] - 0s 136us/sample - loss: 1.2809 -
 y1_output_loss: 0.2485 - y2_output_loss: 1.0461 -
 y1_output_root_mean_squared_error: 0.5006 - y2_output_root_mean_squared_error:

1.0151 - val_loss: 1.5691 - val_y1_output_loss: 0.4027 - val_y2_output_loss:
 1.1747 - val_y1_output_root_mean_squared_error: 0.6418 -
 val_y2_output_root_mean_squared_error: 1.0757
 Epoch 223/500
 614/614 [=====] - 0s 138us/sample - loss: 1.2528 -
 y1_output_loss: 0.2477 - y2_output_loss: 0.9954 -
 y1_output_root_mean_squared_error: 0.4984 - y2_output_root_mean_squared_error:
 1.0022 - val_loss: 1.2144 - val_y1_output_loss: 0.2513 - val_y2_output_loss:
 0.9368 - val_y1_output_root_mean_squared_error: 0.5096 -
 val_y2_output_root_mean_squared_error: 0.9771
 Epoch 224/500
 614/614 [=====] - 0s 133us/sample - loss: 1.3591 -
 y1_output_loss: 0.2520 - y2_output_loss: 1.1055 -
 y1_output_root_mean_squared_error: 0.5005 - y2_output_root_mean_squared_error:
 1.0529 - val_loss: 1.2083 - val_y1_output_loss: 0.3574 - val_y2_output_loss:
 0.8411 - val_y1_output_root_mean_squared_error: 0.5881 -
 val_y2_output_root_mean_squared_error: 0.9287
 Epoch 225/500
 614/614 [=====] - 0s 130us/sample - loss: 1.7029 -
 y1_output_loss: 0.3580 - y2_output_loss: 1.3344 -
 y1_output_root_mean_squared_error: 0.5991 - y2_output_root_mean_squared_error:
 1.1593 - val_loss: 1.2200 - val_y1_output_loss: 0.2061 - val_y2_output_loss:
 1.0050 - val_y1_output_root_mean_squared_error: 0.4586 -
 val_y2_output_root_mean_squared_error: 1.0048
 Epoch 226/500
 614/614 [=====] - 0s 128us/sample - loss: 1.5054 -
 y1_output_loss: 0.2906 - y2_output_loss: 1.2396 -
 y1_output_root_mean_squared_error: 0.5368 - y2_output_root_mean_squared_error:
 1.1033 - val_loss: 15.2017 - val_y1_output_loss: 3.0835 - val_y2_output_loss:
 11.7326 - val_y1_output_root_mean_squared_error: 1.7887 -
 val_y2_output_root_mean_squared_error: 3.4644
 Epoch 227/500
 614/614 [=====] - 0s 130us/sample - loss: 1.5804 -
 y1_output_loss: 0.3092 - y2_output_loss: 1.2598 -
 y1_output_root_mean_squared_error: 0.5574 - y2_output_root_mean_squared_error:
 1.1268 - val_loss: 1.2114 - val_y1_output_loss: 0.2438 - val_y2_output_loss:
 0.9456 - val_y1_output_root_mean_squared_error: 0.4894 -
 val_y2_output_root_mean_squared_error: 0.9858
 Epoch 228/500
 614/614 [=====] - 0s 130us/sample - loss: 0.9758 -
 y1_output_loss: 0.1942 - y2_output_loss: 0.7782 -
 y1_output_root_mean_squared_error: 0.4414 - y2_output_root_mean_squared_error:
 0.8837 - val_loss: 1.1309 - val_y1_output_loss: 0.2475 - val_y2_output_loss:
 0.8844 - val_y1_output_root_mean_squared_error: 0.4940 -
 val_y2_output_root_mean_squared_error: 0.9417
 Epoch 229/500
 614/614 [=====] - 0s 130us/sample - loss: 1.2189 -
 y1_output_loss: 0.2404 - y2_output_loss: 0.9737 -

y1_output_root_mean_squared_error: 0.4890 - y2_output_root_mean_squared_error:
0.9898 - val_loss: 2.2836 - val_y1_output_loss: 0.6331 - val_y2_output_loss:
1.5892 - val_y1_output_root_mean_squared_error: 0.7998 -
val_y2_output_root_mean_squared_error: 1.2821
Epoch 230/500
614/614 [=====] - 0s 131us/sample - loss: 1.1264 -
y1_output_loss: 0.2320 - y2_output_loss: 0.8870 -
y1_output_root_mean_squared_error: 0.4830 - y2_output_root_mean_squared_error:
0.9450 - val_loss: 1.3622 - val_y1_output_loss: 0.2920 - val_y2_output_loss:
1.0528 - val_y1_output_root_mean_squared_error: 0.5449 -
val_y2_output_root_mean_squared_error: 1.0321
Epoch 231/500
614/614 [=====] - 0s 131us/sample - loss: 1.4689 -
y1_output_loss: 0.3023 - y2_output_loss: 1.1544 -
y1_output_root_mean_squared_error: 0.5510 - y2_output_root_mean_squared_error:
1.0795 - val_loss: 1.1408 - val_y1_output_loss: 0.3028 - val_y2_output_loss:
0.8291 - val_y1_output_root_mean_squared_error: 0.5461 -
val_y2_output_root_mean_squared_error: 0.9179
Epoch 232/500
614/614 [=====] - 0s 134us/sample - loss: 1.5625 -
y1_output_loss: 0.3016 - y2_output_loss: 1.2517 -
y1_output_root_mean_squared_error: 0.5515 - y2_output_root_mean_squared_error:
1.1217 - val_loss: 1.6270 - val_y1_output_loss: 0.3295 - val_y2_output_loss:
1.2879 - val_y1_output_root_mean_squared_error: 0.5767 -
val_y2_output_root_mean_squared_error: 1.1377
Epoch 233/500
614/614 [=====] - 0s 139us/sample - loss: 1.2846 -
y1_output_loss: 0.2596 - y2_output_loss: 1.0172 -
y1_output_root_mean_squared_error: 0.5099 - y2_output_root_mean_squared_error:
1.0122 - val_loss: 1.4399 - val_y1_output_loss: 0.1959 - val_y2_output_loss:
1.1970 - val_y1_output_root_mean_squared_error: 0.4501 -
val_y2_output_root_mean_squared_error: 1.1124
Epoch 234/500
614/614 [=====] - 0s 135us/sample - loss: 1.7555 -
y1_output_loss: 0.3716 - y2_output_loss: 1.3779 -
y1_output_root_mean_squared_error: 0.6116 - y2_output_root_mean_squared_error:
1.1753 - val_loss: 1.5613 - val_y1_output_loss: 0.2017 - val_y2_output_loss:
1.3335 - val_y1_output_root_mean_squared_error: 0.4421 -
val_y2_output_root_mean_squared_error: 1.1687
Epoch 235/500
614/614 [=====] - 0s 136us/sample - loss: 1.6560 -
y1_output_loss: 0.2853 - y2_output_loss: 1.3610 -
y1_output_root_mean_squared_error: 0.5355 - y2_output_root_mean_squared_error:
1.1701 - val_loss: 1.9995 - val_y1_output_loss: 0.3726 - val_y2_output_loss:
1.5917 - val_y1_output_root_mean_squared_error: 0.6207 -
val_y2_output_root_mean_squared_error: 1.2705
Epoch 236/500
614/614 [=====] - 0s 134us/sample - loss: 1.9098 -

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y1_output_loss: 0.3445 - y2_output_loss: 1.5508 -
y1_output_root_mean_squared_error: 0.5893 - y2_output_root_mean_squared_error:
1.2500 - val_loss: 1.7491 - val_y1_output_loss: 0.3498 - val_y2_output_loss:
1.3970 - val_y1_output_root_mean_squared_error: 0.6002 -
val_y2_output_root_mean_squared_error: 1.1785
Epoch 237/500
614/614 [=====] - 0s 136us/sample - loss: 1.2240 -
y1_output_loss: 0.2513 - y2_output_loss: 0.9690 -
y1_output_root_mean_squared_error: 0.4990 - y2_output_root_mean_squared_error:
0.9875 - val_loss: 1.1242 - val_y1_output_loss: 0.3070 - val_y2_output_loss:
0.7960 - val_y1_output_root_mean_squared_error: 0.5500 -
val_y2_output_root_mean_squared_error: 0.9064
Epoch 238/500
614/614 [=====] - 0s 132us/sample - loss: 1.1643 -
y1_output_loss: 0.2632 - y2_output_loss: 0.8930 -
y1_output_root_mean_squared_error: 0.5141 - y2_output_root_mean_squared_error:
0.9487 - val_loss: 1.2645 - val_y1_output_loss: 0.3194 - val_y2_output_loss:
0.9367 - val_y1_output_root_mean_squared_error: 0.5733 -
val_y2_output_root_mean_squared_error: 0.9674
Epoch 239/500
614/614 [=====] - 0s 140us/sample - loss: 1.0190 -
y1_output_loss: 0.2305 - y2_output_loss: 0.7902 -
y1_output_root_mean_squared_error: 0.4761 - y2_output_root_mean_squared_error:
0.8901 - val_loss: 1.3678 - val_y1_output_loss: 0.5097 - val_y2_output_loss:
0.8318 - val_y1_output_root_mean_squared_error: 0.7249 -
val_y2_output_root_mean_squared_error: 0.9178
Epoch 240/500
614/614 [=====] - 0s 134us/sample - loss: 0.9951 -
y1_output_loss: 0.2121 - y2_output_loss: 0.7802 -
y1_output_root_mean_squared_error: 0.4569 - y2_output_root_mean_squared_error:
0.8867 - val_loss: 1.2631 - val_y1_output_loss: 0.2998 - val_y2_output_loss:
0.9353 - val_y1_output_root_mean_squared_error: 0.5525 -
val_y2_output_root_mean_squared_error: 0.9787
Epoch 241/500
614/614 [=====] - 0s 129us/sample - loss: 1.0838 -
y1_output_loss: 0.2484 - y2_output_loss: 0.8271 -
y1_output_root_mean_squared_error: 0.5005 - y2_output_root_mean_squared_error:
0.9129 - val_loss: 1.3075 - val_y1_output_loss: 0.3065 - val_y2_output_loss:
0.9742 - val_y1_output_root_mean_squared_error: 0.5512 -
val_y2_output_root_mean_squared_error: 1.0018
Epoch 242/500
614/614 [=====] - 0s 129us/sample - loss: 0.9034 -
y1_output_loss: 0.2049 - y2_output_loss: 0.6943 -
y1_output_root_mean_squared_error: 0.4539 - y2_output_root_mean_squared_error:
0.8351 - val_loss: 1.1214 - val_y1_output_loss: 0.2206 - val_y2_output_loss:
0.8722 - val_y1_output_root_mean_squared_error: 0.4747 -
val_y2_output_root_mean_squared_error: 0.9466
Epoch 243/500

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614/614 [=====] - 0s 133us/sample - loss: 1.2823 -
y1_output_loss: 0.2761 - y2_output_loss: 1.0160 -
y1_output_root_mean_squared_error: 0.5252 - y2_output_root_mean_squared_error:
1.0032 - val_loss: 1.6921 - val_y1_output_loss: 0.5798 - val_y2_output_loss:
1.0922 - val_y1_output_root_mean_squared_error: 0.7758 -
val_y2_output_root_mean_squared_error: 1.0442
Epoch 244/500
614/614 [=====] - 0s 137us/sample - loss: 1.0310 -
y1_output_loss: 0.2287 - y2_output_loss: 0.7986 -
y1_output_root_mean_squared_error: 0.4793 - y2_output_root_mean_squared_error:
0.8952 - val_loss: 1.4242 - val_y1_output_loss: 0.2291 - val_y2_output_loss:
1.1805 - val_y1_output_root_mean_squared_error: 0.4801 -
val_y2_output_root_mean_squared_error: 1.0925
Epoch 245/500
614/614 [=====] - 0s 130us/sample - loss: 1.0510 -
y1_output_loss: 0.2374 - y2_output_loss: 0.8181 -
y1_output_root_mean_squared_error: 0.4866 - y2_output_root_mean_squared_error:
0.9023 - val_loss: 2.3882 - val_y1_output_loss: 0.5577 - val_y2_output_loss:
1.8332 - val_y1_output_root_mean_squared_error: 0.7544 -
val_y2_output_root_mean_squared_error: 1.3487
Epoch 246/500
614/614 [=====] - 0s 130us/sample - loss: 0.9572 -
y1_output_loss: 0.1932 - y2_output_loss: 0.7590 -
y1_output_root_mean_squared_error: 0.4404 - y2_output_root_mean_squared_error:
0.8736 - val_loss: 1.2711 - val_y1_output_loss: 0.2647 - val_y2_output_loss:
1.0050 - val_y1_output_root_mean_squared_error: 0.5211 -
val_y2_output_root_mean_squared_error: 0.9998
Epoch 247/500
614/614 [=====] - 0s 133us/sample - loss: 1.3248 -
y1_output_loss: 0.2592 - y2_output_loss: 1.0670 -
y1_output_root_mean_squared_error: 0.5111 - y2_output_root_mean_squared_error:
1.0313 - val_loss: 1.5898 - val_y1_output_loss: 0.3532 - val_y2_output_loss:
1.2450 - val_y1_output_root_mean_squared_error: 0.5951 -
val_y2_output_root_mean_squared_error: 1.1116
Epoch 248/500
614/614 [=====] - 0s 132us/sample - loss: 1.4540 -
y1_output_loss: 0.2779 - y2_output_loss: 1.1973 -
y1_output_root_mean_squared_error: 0.5290 - y2_output_root_mean_squared_error:
1.0836 - val_loss: 5.5436 - val_y1_output_loss: 0.9319 - val_y2_output_loss:
4.5977 - val_y1_output_root_mean_squared_error: 0.9750 -
val_y2_output_root_mean_squared_error: 2.1431
Epoch 249/500
614/614 [=====] - 0s 133us/sample - loss: 1.2191 -
y1_output_loss: 0.2567 - y2_output_loss: 0.9621 -
y1_output_root_mean_squared_error: 0.5063 - y2_output_root_mean_squared_error:
0.9812 - val_loss: 1.2381 - val_y1_output_loss: 0.1795 - val_y2_output_loss:
1.0319 - val_y1_output_root_mean_squared_error: 0.4296 -
val_y2_output_root_mean_squared_error: 1.0264

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Epoch 250/500
614/614 [=====] - 0s 134us/sample - loss: 1.1232 -
y1_output_loss: 0.2318 - y2_output_loss: 0.8825 -
y1_output_root_mean_squared_error: 0.4824 - y2_output_root_mean_squared_error:
0.9437 - val_loss: 1.2413 - val_y1_output_loss: 0.2080 - val_y2_output_loss:
1.0062 - val_y1_output_root_mean_squared_error: 0.4608 -
val_y2_output_root_mean_squared_error: 1.0144
Epoch 251/500
614/614 [=====] - 0s 136us/sample - loss: 0.9734 -
y1_output_loss: 0.1886 - y2_output_loss: 0.7789 -
y1_output_root_mean_squared_error: 0.4344 - y2_output_root_mean_squared_error:
0.8858 - val_loss: 1.6430 - val_y1_output_loss: 0.3775 - val_y2_output_loss:
1.2343 - val_y1_output_root_mean_squared_error: 0.6182 -
val_y2_output_root_mean_squared_error: 1.1229
Epoch 252/500
614/614 [=====] - 0s 135us/sample - loss: 1.2264 -
y1_output_loss: 0.2630 - y2_output_loss: 0.9715 -
y1_output_root_mean_squared_error: 0.5117 - y2_output_root_mean_squared_error:
0.9822 - val_loss: 2.8244 - val_y1_output_loss: 0.6697 - val_y2_output_loss:
2.0965 - val_y1_output_root_mean_squared_error: 0.8328 -
val_y2_output_root_mean_squared_error: 1.4597
Epoch 253/500
614/614 [=====] - 0s 136us/sample - loss: 0.9555 -
y1_output_loss: 0.2264 - y2_output_loss: 0.7249 -
y1_output_root_mean_squared_error: 0.4779 - y2_output_root_mean_squared_error:
0.8527 - val_loss: 1.1255 - val_y1_output_loss: 0.2965 - val_y2_output_loss:
0.8242 - val_y1_output_root_mean_squared_error: 0.5520 -
val_y2_output_root_mean_squared_error: 0.9060
Epoch 254/500
614/614 [=====] - 0s 132us/sample - loss: 0.9711 -
y1_output_loss: 0.1984 - y2_output_loss: 0.7778 -
y1_output_root_mean_squared_error: 0.4415 - y2_output_root_mean_squared_error:
0.8810 - val_loss: 1.4406 - val_y1_output_loss: 0.4349 - val_y2_output_loss:
0.9726 - val_y1_output_root_mean_squared_error: 0.6588 -
val_y2_output_root_mean_squared_error: 1.0033
Epoch 255/500
614/614 [=====] - 0s 132us/sample - loss: 1.1462 -
y1_output_loss: 0.2311 - y2_output_loss: 0.9078 -
y1_output_root_mean_squared_error: 0.4815 - y2_output_root_mean_squared_error:
0.9562 - val_loss: 1.1186 - val_y1_output_loss: 0.1803 - val_y2_output_loss:
0.9179 - val_y1_output_root_mean_squared_error: 0.4294 -
val_y2_output_root_mean_squared_error: 0.9666
Epoch 256/500
614/614 [=====] - 0s 132us/sample - loss: 0.8906 -
y1_output_loss: 0.2040 - y2_output_loss: 0.6814 -
y1_output_root_mean_squared_error: 0.4522 - y2_output_root_mean_squared_error:
0.8283 - val_loss: 1.1714 - val_y1_output_loss: 0.3008 - val_y2_output_loss:
0.8598 - val_y1_output_root_mean_squared_error: 0.5573 -

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val_y2_output_root_mean_squared_error: 0.9278
Epoch 257/500
614/614 [=====] - 0s 131us/sample - loss: 0.8474 -
y1_output_loss: 0.1846 - y2_output_loss: 0.6919 -
y1_output_root_mean_squared_error: 0.4270 - y2_output_root_mean_squared_error:
0.8155 - val_loss: 9.0446 - val_y1_output_loss: 1.4015 - val_y2_output_loss:
7.3271 - val_y1_output_root_mean_squared_error: 1.2001 -
val_y2_output_root_mean_squared_error: 2.7576
Epoch 258/500
614/614 [=====] - 0s 130us/sample - loss: 1.2155 -
y1_output_loss: 0.2848 - y2_output_loss: 0.9194 -
y1_output_root_mean_squared_error: 0.5360 - y2_output_root_mean_squared_error:
0.9634 - val_loss: 2.0991 - val_y1_output_loss: 0.5440 - val_y2_output_loss:
1.4883 - val_y1_output_root_mean_squared_error: 0.7453 -
val_y2_output_root_mean_squared_error: 1.2424
Epoch 259/500
614/614 [=====] - 0s 131us/sample - loss: 1.0421 -
y1_output_loss: 0.2340 - y2_output_loss: 0.8107 -
y1_output_root_mean_squared_error: 0.4822 - y2_output_root_mean_squared_error:
0.8997 - val_loss: 1.8740 - val_y1_output_loss: 0.6607 - val_y2_output_loss:
1.1968 - val_y1_output_root_mean_squared_error: 0.8229 -
val_y2_output_root_mean_squared_error: 1.0940
Epoch 260/500
614/614 [=====] - 0s 133us/sample - loss: 0.9153 -
y1_output_loss: 0.2103 - y2_output_loss: 0.7023 -
y1_output_root_mean_squared_error: 0.4596 - y2_output_root_mean_squared_error:
0.8390 - val_loss: 1.4079 - val_y1_output_loss: 0.2021 - val_y2_output_loss:
1.2096 - val_y1_output_root_mean_squared_error: 0.4513 -
val_y2_output_root_mean_squared_error: 1.0974
Epoch 261/500
614/614 [=====] - 0s 132us/sample - loss: 1.4241 -
y1_output_loss: 0.2662 - y2_output_loss: 1.1574 -
y1_output_root_mean_squared_error: 0.5169 - y2_output_root_mean_squared_error:
1.0756 - val_loss: 2.3383 - val_y1_output_loss: 0.7095 - val_y2_output_loss:
1.6170 - val_y1_output_root_mean_squared_error: 0.8317 -
val_y2_output_root_mean_squared_error: 1.2832
Epoch 262/500
614/614 [=====] - 0s 134us/sample - loss: 0.9910 -
y1_output_loss: 0.2209 - y2_output_loss: 0.7635 -
y1_output_root_mean_squared_error: 0.4707 - y2_output_root_mean_squared_error:
0.8771 - val_loss: 1.0723 - val_y1_output_loss: 0.2914 - val_y2_output_loss:
0.7964 - val_y1_output_root_mean_squared_error: 0.5225 -
val_y2_output_root_mean_squared_error: 0.8941
Epoch 263/500
614/614 [=====] - 0s 136us/sample - loss: 0.9199 -
y1_output_loss: 0.2230 - y2_output_loss: 0.6946 -
y1_output_root_mean_squared_error: 0.4743 - y2_output_root_mean_squared_error:
0.8336 - val_loss: 1.0047 - val_y1_output_loss: 0.1926 - val_y2_output_loss:

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0.8195 - val_y1_output_root_mean_squared_error: 0.4472 -
 val_y2_output_root_mean_squared_error: 0.8971
 Epoch 264/500
 614/614 [=====] - 0s 131us/sample - loss: 1.1239 -
 y1_output_loss: 0.2393 - y2_output_loss: 0.8822 -
 y1_output_root_mean_squared_error: 0.4895 - y2_output_root_mean_squared_error:
 0.9403 - val_loss: 2.5502 - val_y1_output_loss: 0.5471 - val_y2_output_loss:
 1.9353 - val_y1_output_root_mean_squared_error: 0.7518 -
 val_y2_output_root_mean_squared_error: 1.4089
 Epoch 265/500
 614/614 [=====] - 0s 128us/sample - loss: 1.1333 -
 y1_output_loss: 0.2675 - y2_output_loss: 0.8647 -
 y1_output_root_mean_squared_error: 0.5180 - y2_output_root_mean_squared_error:
 0.9300 - val_loss: 1.7746 - val_y1_output_loss: 0.3014 - val_y2_output_loss:
 1.4273 - val_y1_output_root_mean_squared_error: 0.5556 -
 val_y2_output_root_mean_squared_error: 1.2107
 Epoch 266/500
 614/614 [=====] - 0s 129us/sample - loss: 0.8284 -
 y1_output_loss: 0.1917 - y2_output_loss: 0.6362 -
 y1_output_root_mean_squared_error: 0.4378 - y2_output_root_mean_squared_error:
 0.7979 - val_loss: 1.5565 - val_y1_output_loss: 0.3453 - val_y2_output_loss:
 1.1736 - val_y1_output_root_mean_squared_error: 0.5835 -
 val_y2_output_root_mean_squared_error: 1.1027
 Epoch 267/500
 614/614 [=====] - 0s 132us/sample - loss: 1.2061 -
 y1_output_loss: 0.2771 - y2_output_loss: 0.9604 -
 y1_output_root_mean_squared_error: 0.5272 - y2_output_root_mean_squared_error:
 0.9634 - val_loss: 6.1118 - val_y1_output_loss: 0.6121 - val_y2_output_loss:
 5.4637 - val_y1_output_root_mean_squared_error: 0.7922 -
 val_y2_output_root_mean_squared_error: 2.3419
 Epoch 268/500
 614/614 [=====] - 0s 133us/sample - loss: 1.0192 -
 y1_output_loss: 0.2031 - y2_output_loss: 0.8305 -
 y1_output_root_mean_squared_error: 0.4522 - y2_output_root_mean_squared_error:
 0.9026 - val_loss: 4.2202 - val_y1_output_loss: 0.5085 - val_y2_output_loss:
 3.7215 - val_y1_output_root_mean_squared_error: 0.7227 -
 val_y2_output_root_mean_squared_error: 1.9230
 Epoch 269/500
 614/614 [=====] - 0s 128us/sample - loss: 1.3309 -
 y1_output_loss: 0.2916 - y2_output_loss: 1.0308 -
 y1_output_root_mean_squared_error: 0.5415 - y2_output_root_mean_squared_error:
 1.0187 - val_loss: 1.3444 - val_y1_output_loss: 0.1988 - val_y2_output_loss:
 1.1045 - val_y1_output_root_mean_squared_error: 0.4513 -
 val_y2_output_root_mean_squared_error: 1.0680
 Epoch 270/500
 614/614 [=====] - 0s 134us/sample - loss: 0.7590 -
 y1_output_loss: 0.1771 - y2_output_loss: 0.5951 -
 y1_output_root_mean_squared_error: 0.4224 - y2_output_root_mean_squared_error:

0.7619 - val_loss: 2.4137 - val_y1_output_loss: 0.2338 - val_y2_output_loss:
 2.1306 - val_y1_output_root_mean_squared_error: 0.4865 -
 val_y2_output_root_mean_squared_error: 1.4755
 Epoch 271/500
 614/614 [=====] - 0s 133us/sample - loss: 0.8798 -
 y1_output_loss: 0.1893 - y2_output_loss: 0.6842 -
 y1_output_root_mean_squared_error: 0.4369 - y2_output_root_mean_squared_error:
 0.8300 - val_loss: 1.8672 - val_y1_output_loss: 0.3877 - val_y2_output_loss:
 1.4250 - val_y1_output_root_mean_squared_error: 0.6327 -
 val_y2_output_root_mean_squared_error: 1.2112
 Epoch 272/500
 614/614 [=====] - 0s 136us/sample - loss: 0.9760 -
 y1_output_loss: 0.2300 - y2_output_loss: 0.7561 -
 y1_output_root_mean_squared_error: 0.4764 - y2_output_root_mean_squared_error:
 0.8655 - val_loss: 2.8745 - val_y1_output_loss: 0.5369 - val_y2_output_loss:
 2.2762 - val_y1_output_root_mean_squared_error: 0.7456 -
 val_y2_output_root_mean_squared_error: 1.5227
 Epoch 273/500
 614/614 [=====] - 0s 133us/sample - loss: 0.9653 -
 y1_output_loss: 0.2280 - y2_output_loss: 0.7360 -
 y1_output_root_mean_squared_error: 0.4775 - y2_output_root_mean_squared_error:
 0.8587 - val_loss: 1.2674 - val_y1_output_loss: 0.1651 - val_y2_output_loss:
 1.0955 - val_y1_output_root_mean_squared_error: 0.4083 -
 val_y2_output_root_mean_squared_error: 1.0491
 Epoch 274/500
 614/614 [=====] - 0s 143us/sample - loss: 0.9980 -
 y1_output_loss: 0.2197 - y2_output_loss: 0.7767 -
 y1_output_root_mean_squared_error: 0.4685 - y2_output_root_mean_squared_error:
 0.8824 - val_loss: 2.9066 - val_y1_output_loss: 0.5694 - val_y2_output_loss:
 2.3361 - val_y1_output_root_mean_squared_error: 0.7537 -
 val_y2_output_root_mean_squared_error: 1.5292
 Epoch 275/500
 614/614 [=====] - 0s 138us/sample - loss: 0.8846 -
 y1_output_loss: 0.2062 - y2_output_loss: 0.6731 -
 y1_output_root_mean_squared_error: 0.4559 - y2_output_root_mean_squared_error:
 0.8227 - val_loss: 0.9270 - val_y1_output_loss: 0.1751 - val_y2_output_loss:
 0.7420 - val_y1_output_root_mean_squared_error: 0.4208 -
 val_y2_output_root_mean_squared_error: 0.8660
 Epoch 276/500
 614/614 [=====] - 0s 137us/sample - loss: 0.7627 -
 y1_output_loss: 0.1721 - y2_output_loss: 0.6002 -
 y1_output_root_mean_squared_error: 0.4130 - y2_output_root_mean_squared_error:
 0.7695 - val_loss: 1.4454 - val_y1_output_loss: 0.3125 - val_y2_output_loss:
 1.0993 - val_y1_output_root_mean_squared_error: 0.5582 -
 val_y2_output_root_mean_squared_error: 1.0648
 Epoch 277/500
 614/614 [=====] - 0s 131us/sample - loss: 0.8940 -
 y1_output_loss: 0.2006 - y2_output_loss: 0.6865 -

y1_output_root_mean_squared_error: 0.4494 - y2_output_root_mean_squared_error:
 0.8319 - val_loss: 0.9365 - val_y1_output_loss: 0.1768 - val_y2_output_loss:
 0.7354 - val_y1_output_root_mean_squared_error: 0.4238 -
 val_y2_output_root_mean_squared_error: 0.8700
 Epoch 278/500
 614/614 [=====] - 0s 132us/sample - loss: 0.7676 -
 y1_output_loss: 0.1704 - y2_output_loss: 0.5984 -
 y1_output_root_mean_squared_error: 0.4134 - y2_output_root_mean_squared_error:
 0.7725 - val_loss: 1.5979 - val_y1_output_loss: 0.3162 - val_y2_output_loss:
 1.2748 - val_y1_output_root_mean_squared_error: 0.5680 -
 val_y2_output_root_mean_squared_error: 1.1293
 Epoch 279/500
 614/614 [=====] - 0s 130us/sample - loss: 0.7814 -
 y1_output_loss: 0.1757 - y2_output_loss: 0.6043 -
 y1_output_root_mean_squared_error: 0.4209 - y2_output_root_mean_squared_error:
 0.7773 - val_loss: 0.9712 - val_y1_output_loss: 0.2162 - val_y2_output_loss:
 0.7634 - val_y1_output_root_mean_squared_error: 0.4734 -
 val_y2_output_root_mean_squared_error: 0.8643
 Epoch 280/500
 614/614 [=====] - 0s 134us/sample - loss: 0.6885 -
 y1_output_loss: 0.1721 - y2_output_loss: 0.5126 -
 y1_output_root_mean_squared_error: 0.4150 - y2_output_root_mean_squared_error:
 0.7185 - val_loss: 1.1150 - val_y1_output_loss: 0.1535 - val_y2_output_loss:
 0.9306 - val_y1_output_root_mean_squared_error: 0.3920 -
 val_y2_output_root_mean_squared_error: 0.9805
 Epoch 281/500
 614/614 [=====] - 0s 137us/sample - loss: 1.0371 -
 y1_output_loss: 0.1899 - y2_output_loss: 0.8505 -
 y1_output_root_mean_squared_error: 0.4364 - y2_output_root_mean_squared_error:
 0.9202 - val_loss: 3.2539 - val_y1_output_loss: 0.4595 - val_y2_output_loss:
 2.6912 - val_y1_output_root_mean_squared_error: 0.6815 -
 val_y2_output_root_mean_squared_error: 1.6702
 Epoch 282/500
 614/614 [=====] - 0s 130us/sample - loss: 0.9179 -
 y1_output_loss: 0.2089 - y2_output_loss: 0.7012 -
 y1_output_root_mean_squared_error: 0.4588 - y2_output_root_mean_squared_error:
 0.8411 - val_loss: 0.9246 - val_y1_output_loss: 0.1930 - val_y2_output_loss:
 0.7149 - val_y1_output_root_mean_squared_error: 0.4432 -
 val_y2_output_root_mean_squared_error: 0.8533
 Epoch 283/500
 614/614 [=====] - 0s 136us/sample - loss: 0.7521 -
 y1_output_loss: 0.1773 - y2_output_loss: 0.5809 -
 y1_output_root_mean_squared_error: 0.4196 - y2_output_root_mean_squared_error:
 0.7590 - val_loss: 2.1932 - val_y1_output_loss: 0.2580 - val_y2_output_loss:
 1.8649 - val_y1_output_root_mean_squared_error: 0.5076 -
 val_y2_output_root_mean_squared_error: 1.3912
 Epoch 284/500
 614/614 [=====] - 0s 131us/sample - loss: 1.0785 -

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y1_output_loss: 0.2183 - y2_output_loss: 0.8721 -
y1_output_root_mean_squared_error: 0.4656 - y2_output_root_mean_squared_error:
0.9283 - val_loss: 2.8975 - val_y1_output_loss: 0.6759 - val_y2_output_loss:
2.2600 - val_y1_output_root_mean_squared_error: 0.8279 -
val_y2_output_root_mean_squared_error: 1.4873
Epoch 285/500
614/614 [=====] - 0s 131us/sample - loss: 1.2704 -
y1_output_loss: 0.2695 - y2_output_loss: 0.9909 -
y1_output_root_mean_squared_error: 0.5210 - y2_output_root_mean_squared_error:
0.9995 - val_loss: 1.0401 - val_y1_output_loss: 0.2588 - val_y2_output_loss:
0.7658 - val_y1_output_root_mean_squared_error: 0.5136 -
val_y2_output_root_mean_squared_error: 0.8811
Epoch 286/500
614/614 [=====] - 0s 139us/sample - loss: 0.9200 -
y1_output_loss: 0.1740 - y2_output_loss: 0.7382 -
y1_output_root_mean_squared_error: 0.4188 - y2_output_root_mean_squared_error:
0.8629 - val_loss: 1.0739 - val_y1_output_loss: 0.2181 - val_y2_output_loss:
0.8307 - val_y1_output_root_mean_squared_error: 0.4687 -
val_y2_output_root_mean_squared_error: 0.9243
Epoch 287/500
614/614 [=====] - 0s 130us/sample - loss: 0.8956 -
y1_output_loss: 0.2029 - y2_output_loss: 0.6853 -
y1_output_root_mean_squared_error: 0.4521 - y2_output_root_mean_squared_error:
0.8314 - val_loss: 0.8368 - val_y1_output_loss: 0.1698 - val_y2_output_loss:
0.6539 - val_y1_output_root_mean_squared_error: 0.4149 -
val_y2_output_root_mean_squared_error: 0.8153
Epoch 288/500
614/614 [=====] - 0s 136us/sample - loss: 1.0147 -
y1_output_loss: 0.2202 - y2_output_loss: 0.8088 -
y1_output_root_mean_squared_error: 0.4693 - y2_output_root_mean_squared_error:
0.8914 - val_loss: 1.8316 - val_y1_output_loss: 0.1615 - val_y2_output_loss:
1.6412 - val_y1_output_root_mean_squared_error: 0.4035 -
val_y2_output_root_mean_squared_error: 1.2918
Epoch 289/500
614/614 [=====] - 0s 134us/sample - loss: 1.0516 -
y1_output_loss: 0.2260 - y2_output_loss: 0.8237 -
y1_output_root_mean_squared_error: 0.4765 - y2_output_root_mean_squared_error:
0.9080 - val_loss: 1.9428 - val_y1_output_loss: 0.2077 - val_y2_output_loss:
1.6893 - val_y1_output_root_mean_squared_error: 0.4537 -
val_y2_output_root_mean_squared_error: 1.3179
Epoch 290/500
614/614 [=====] - 0s 135us/sample - loss: 0.7742 -
y1_output_loss: 0.1848 - y2_output_loss: 0.5859 -
y1_output_root_mean_squared_error: 0.4310 - y2_output_root_mean_squared_error:
0.7671 - val_loss: 1.1239 - val_y1_output_loss: 0.2674 - val_y2_output_loss:
0.8461 - val_y1_output_root_mean_squared_error: 0.5194 -
val_y2_output_root_mean_squared_error: 0.9242
Epoch 291/500

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614/614 [=====] - 0s 137us/sample - loss: 0.7797 -
y1_output_loss: 0.1895 - y2_output_loss: 0.5862 -
y1_output_root_mean_squared_error: 0.4368 - y2_output_root_mean_squared_error:
0.7674 - val_loss: 1.0121 - val_y1_output_loss: 0.2138 - val_y2_output_loss:
0.7800 - val_y1_output_root_mean_squared_error: 0.4693 -
val_y2_output_root_mean_squared_error: 0.8898
Epoch 292/500
614/614 [=====] - 0s 134us/sample - loss: 0.7459 -
y1_output_loss: 0.1561 - y2_output_loss: 0.5871 -
y1_output_root_mean_squared_error: 0.3962 - y2_output_root_mean_squared_error:
0.7674 - val_loss: 1.4138 - val_y1_output_loss: 0.3288 - val_y2_output_loss:
1.0671 - val_y1_output_root_mean_squared_error: 0.5820 -
val_y2_output_root_mean_squared_error: 1.0369
Epoch 293/500
614/614 [=====] - 0s 132us/sample - loss: 0.8425 -
y1_output_loss: 0.1901 - y2_output_loss: 0.6484 -
y1_output_root_mean_squared_error: 0.4361 - y2_output_root_mean_squared_error:
0.8077 - val_loss: 0.9375 - val_y1_output_loss: 0.2129 - val_y2_output_loss:
0.7165 - val_y1_output_root_mean_squared_error: 0.4619 -
val_y2_output_root_mean_squared_error: 0.8510
Epoch 294/500
614/614 [=====] - 0s 130us/sample - loss: 0.7724 -
y1_output_loss: 0.1841 - y2_output_loss: 0.5953 -
y1_output_root_mean_squared_error: 0.4295 - y2_output_root_mean_squared_error:
0.7668 - val_loss: 2.6511 - val_y1_output_loss: 0.4960 - val_y2_output_loss:
2.0742 - val_y1_output_root_mean_squared_error: 0.7065 -
val_y2_output_root_mean_squared_error: 1.4670
Epoch 295/500
614/614 [=====] - 0s 132us/sample - loss: 0.7917 -
y1_output_loss: 0.1844 - y2_output_loss: 0.6140 -
y1_output_root_mean_squared_error: 0.4294 - y2_output_root_mean_squared_error:
0.7793 - val_loss: 1.6912 - val_y1_output_loss: 0.4323 - val_y2_output_loss:
1.2215 - val_y1_output_root_mean_squared_error: 0.6538 -
val_y2_output_root_mean_squared_error: 1.1242
Epoch 296/500
614/614 [=====] - 0s 137us/sample - loss: 0.7908 -
y1_output_loss: 0.1990 - y2_output_loss: 0.5883 -
y1_output_root_mean_squared_error: 0.4463 - y2_output_root_mean_squared_error:
0.7691 - val_loss: 0.8276 - val_y1_output_loss: 0.1758 - val_y2_output_loss:
0.6387 - val_y1_output_root_mean_squared_error: 0.4217 -
val_y2_output_root_mean_squared_error: 0.8061
Epoch 297/500
614/614 [=====] - 0s 135us/sample - loss: 1.0724 -
y1_output_loss: 0.2270 - y2_output_loss: 0.8412 -
y1_output_root_mean_squared_error: 0.4777 - y2_output_root_mean_squared_error:
0.9188 - val_loss: 1.8977 - val_y1_output_loss: 0.3430 - val_y2_output_loss:
1.5858 - val_y1_output_root_mean_squared_error: 0.5898 -
val_y2_output_root_mean_squared_error: 1.2449

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Epoch 298/500

614/614 [=====] - 0s 139us/sample - loss: 0.9604 -
y1_output_loss: 0.2038 - y2_output_loss: 0.7565 -
y1_output_root_mean_squared_error: 0.4512 - y2_output_root_mean_squared_error:
0.8699 - val_loss: 1.4892 - val_y1_output_loss: 0.3237 - val_y2_output_loss:
1.1738 - val_y1_output_root_mean_squared_error: 0.5662 -
val_y2_output_root_mean_squared_error: 1.0810

Epoch 299/500

614/614 [=====] - 0s 135us/sample - loss: 0.7202 -
y1_output_loss: 0.1748 - y2_output_loss: 0.5429 -
y1_output_root_mean_squared_error: 0.4181 - y2_output_root_mean_squared_error:
0.7385 - val_loss: 1.1135 - val_y1_output_loss: 0.2129 - val_y2_output_loss:
0.8677 - val_y1_output_root_mean_squared_error: 0.4662 -
val_y2_output_root_mean_squared_error: 0.9466

Epoch 300/500

614/614 [=====] - 0s 137us/sample - loss: 0.8758 -
y1_output_loss: 0.1804 - y2_output_loss: 0.6889 -
y1_output_root_mean_squared_error: 0.4266 - y2_output_root_mean_squared_error:
0.8330 - val_loss: 0.8691 - val_y1_output_loss: 0.1914 - val_y2_output_loss:
0.6651 - val_y1_output_root_mean_squared_error: 0.4419 -
val_y2_output_root_mean_squared_error: 0.8208

Epoch 301/500

614/614 [=====] - 0s 137us/sample - loss: 0.9585 -
y1_output_loss: 0.2138 - y2_output_loss: 0.7391 -
y1_output_root_mean_squared_error: 0.4643 - y2_output_root_mean_squared_error:
0.8620 - val_loss: 0.8305 - val_y1_output_loss: 0.1719 - val_y2_output_loss:
0.6770 - val_y1_output_root_mean_squared_error: 0.4210 -
val_y2_output_root_mean_squared_error: 0.8082

Epoch 302/500

614/614 [=====] - 0s 132us/sample - loss: 0.7455 -
y1_output_loss: 0.1708 - y2_output_loss: 0.5755 -
y1_output_root_mean_squared_error: 0.4149 - y2_output_root_mean_squared_error:
0.7572 - val_loss: 1.5243 - val_y1_output_loss: 0.3393 - val_y2_output_loss:
1.1443 - val_y1_output_root_mean_squared_error: 0.5813 -
val_y2_output_root_mean_squared_error: 1.0892

Epoch 303/500

614/614 [=====] - 0s 137us/sample - loss: 0.8953 -
y1_output_loss: 0.2202 - y2_output_loss: 0.6741 -
y1_output_root_mean_squared_error: 0.4685 - y2_output_root_mean_squared_error:
0.8221 - val_loss: 1.5798 - val_y1_output_loss: 0.1926 - val_y2_output_loss:
1.4026 - val_y1_output_root_mean_squared_error: 0.4360 -
val_y2_output_root_mean_squared_error: 1.1789

Epoch 304/500

614/614 [=====] - 0s 138us/sample - loss: 0.9940 -
y1_output_loss: 0.2229 - y2_output_loss: 0.7643 -
y1_output_root_mean_squared_error: 0.4731 - y2_output_root_mean_squared_error:
0.8776 - val_loss: 0.8135 - val_y1_output_loss: 0.1519 - val_y2_output_loss:
0.6499 - val_y1_output_root_mean_squared_error: 0.3909 -


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val_y2_output_root_mean_squared_error: 0.8128
Epoch 305/500
614/614 [=====] - 0s 139us/sample - loss: 0.7895 -
y1_output_loss: 0.1608 - y2_output_loss: 0.6246 -
y1_output_root_mean_squared_error: 0.4018 - y2_output_root_mean_squared_error:
0.7925 - val_loss: 1.7163 - val_y1_output_loss: 0.2308 - val_y2_output_loss:
1.4296 - val_y1_output_root_mean_squared_error: 0.4843 -
val_y2_output_root_mean_squared_error: 1.2173
Epoch 306/500
614/614 [=====] - 0s 138us/sample - loss: 0.7157 -
y1_output_loss: 0.1799 - y2_output_loss: 0.5332 -
y1_output_root_mean_squared_error: 0.4234 - y2_output_root_mean_squared_error:
0.7324 - val_loss: 1.3260 - val_y1_output_loss: 0.2996 - val_y2_output_loss:
0.9957 - val_y1_output_root_mean_squared_error: 0.5448 -
val_y2_output_root_mean_squared_error: 1.0145
Epoch 307/500
614/614 [=====] - 0s 132us/sample - loss: 1.0265 -
y1_output_loss: 0.2262 - y2_output_loss: 0.7933 -
y1_output_root_mean_squared_error: 0.4749 - y2_output_root_mean_squared_error:
0.8950 - val_loss: 1.6503 - val_y1_output_loss: 0.4621 - val_y2_output_loss:
1.1394 - val_y1_output_root_mean_squared_error: 0.6849 -
val_y2_output_root_mean_squared_error: 1.0869
Epoch 308/500
614/614 [=====] - 0s 134us/sample - loss: 0.6931 -
y1_output_loss: 0.1849 - y2_output_loss: 0.5299 -
y1_output_root_mean_squared_error: 0.4317 - y2_output_root_mean_squared_error:
0.7118 - val_loss: 2.6452 - val_y1_output_loss: 0.1993 - val_y2_output_loss:
2.3910 - val_y1_output_root_mean_squared_error: 0.4486 -
val_y2_output_root_mean_squared_error: 1.5633
Epoch 309/500
614/614 [=====] - 0s 135us/sample - loss: 0.8104 -
y1_output_loss: 0.1760 - y2_output_loss: 0.6508 -
y1_output_root_mean_squared_error: 0.4211 - y2_output_root_mean_squared_error:
0.7957 - val_loss: 2.3064 - val_y1_output_loss: 0.2485 - val_y2_output_loss:
1.9837 - val_y1_output_root_mean_squared_error: 0.5013 -
val_y2_output_root_mean_squared_error: 1.4336
Epoch 310/500
614/614 [=====] - 0s 135us/sample - loss: 0.6795 -
y1_output_loss: 0.1697 - y2_output_loss: 0.5060 -
y1_output_root_mean_squared_error: 0.4134 - y2_output_root_mean_squared_error:
0.7131 - val_loss: 0.9979 - val_y1_output_loss: 0.2366 - val_y2_output_loss:
0.7649 - val_y1_output_root_mean_squared_error: 0.4841 -
val_y2_output_root_mean_squared_error: 0.8738
Epoch 311/500
614/614 [=====] - 0s 134us/sample - loss: 0.7459 -
y1_output_loss: 0.1683 - y2_output_loss: 0.5712 -
y1_output_root_mean_squared_error: 0.4119 - y2_output_root_mean_squared_error:
0.7591 - val_loss: 0.9994 - val_y1_output_loss: 0.2044 - val_y2_output_loss:

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0.7654 - val_y1_output_root_mean_squared_error: 0.4574 -
 val_y2_output_root_mean_squared_error: 0.8889
 Epoch 312/500
 614/614 [=====] - 0s 131us/sample - loss: 1.1173 -
 y1_output_loss: 0.2865 - y2_output_loss: 0.8249 -
 y1_output_root_mean_squared_error: 0.5364 - y2_output_root_mean_squared_error:
 0.9108 - val_loss: 1.6598 - val_y1_output_loss: 0.2917 - val_y2_output_loss:
 1.3916 - val_y1_output_root_mean_squared_error: 0.5367 -
 val_y2_output_root_mean_squared_error: 1.1712
 Epoch 313/500
 614/614 [=====] - 0s 134us/sample - loss: 0.9030 -
 y1_output_loss: 0.2195 - y2_output_loss: 0.6864 -
 y1_output_root_mean_squared_error: 0.4671 - y2_output_root_mean_squared_error:
 0.8275 - val_loss: 2.2820 - val_y1_output_loss: 0.5340 - val_y2_output_loss:
 1.6798 - val_y1_output_root_mean_squared_error: 0.7386 -
 val_y2_output_root_mean_squared_error: 1.3178
 Epoch 314/500
 614/614 [=====] - 0s 134us/sample - loss: 0.7540 -
 y1_output_loss: 0.1899 - y2_output_loss: 0.5639 -
 y1_output_root_mean_squared_error: 0.4366 - y2_output_root_mean_squared_error:
 0.7505 - val_loss: 1.5840 - val_y1_output_loss: 0.3254 - val_y2_output_loss:
 1.2448 - val_y1_output_root_mean_squared_error: 0.5777 -
 val_y2_output_root_mean_squared_error: 1.1182
 Epoch 315/500
 614/614 [=====] - 0s 130us/sample - loss: 0.7201 -
 y1_output_loss: 0.1888 - y2_output_loss: 0.5338 -
 y1_output_root_mean_squared_error: 0.4345 - y2_output_root_mean_squared_error:
 0.7289 - val_loss: 2.3306 - val_y1_output_loss: 0.3701 - val_y2_output_loss:
 1.9008 - val_y1_output_root_mean_squared_error: 0.6145 -
 val_y2_output_root_mean_squared_error: 1.3975
 Epoch 316/500
 614/614 [=====] - 0s 133us/sample - loss: 0.8786 -
 y1_output_loss: 0.1911 - y2_output_loss: 0.6889 -
 y1_output_root_mean_squared_error: 0.4368 - y2_output_root_mean_squared_error:
 0.8293 - val_loss: 2.6881 - val_y1_output_loss: 0.5229 - val_y2_output_loss:
 2.0833 - val_y1_output_root_mean_squared_error: 0.7253 -
 val_y2_output_root_mean_squared_error: 1.4704
 Epoch 317/500
 614/614 [=====] - 0s 133us/sample - loss: 0.8005 -
 y1_output_loss: 0.1915 - y2_output_loss: 0.6047 -
 y1_output_root_mean_squared_error: 0.4375 - y2_output_root_mean_squared_error:
 0.7805 - val_loss: 1.4406 - val_y1_output_loss: 0.3563 - val_y2_output_loss:
 1.0669 - val_y1_output_root_mean_squared_error: 0.6060 -
 val_y2_output_root_mean_squared_error: 1.0360
 Epoch 318/500
 614/614 [=====] - 0s 128us/sample - loss: 0.7948 -
 y1_output_loss: 0.1939 - y2_output_loss: 0.6143 -
 y1_output_root_mean_squared_error: 0.4402 - y2_output_root_mean_squared_error:

0.7752 - val_loss: 2.1577 - val_y1_output_loss: 0.2221 - val_y2_output_loss:
 1.8869 - val_y1_output_root_mean_squared_error: 0.4722 -
 val_y2_output_root_mean_squared_error: 1.3909
 Epoch 319/500
 614/614 [=====] - 0s 129us/sample - loss: 0.6074 -
 y1_output_loss: 0.1433 - y2_output_loss: 0.4591 -
 y1_output_root_mean_squared_error: 0.3799 - y2_output_root_mean_squared_error:
 0.6805 - val_loss: 0.7539 - val_y1_output_loss: 0.1475 - val_y2_output_loss:
 0.5908 - val_y1_output_root_mean_squared_error: 0.3851 -
 val_y2_output_root_mean_squared_error: 0.7782
 Epoch 320/500
 614/614 [=====] - 0s 129us/sample - loss: 0.7237 -
 y1_output_loss: 0.1496 - y2_output_loss: 0.5727 -
 y1_output_root_mean_squared_error: 0.3878 - y2_output_root_mean_squared_error:
 0.7572 - val_loss: 0.8666 - val_y1_output_loss: 0.2121 - val_y2_output_loss:
 0.6356 - val_y1_output_root_mean_squared_error: 0.4628 -
 val_y2_output_root_mean_squared_error: 0.8077
 Epoch 321/500
 614/614 [=====] - 0s 130us/sample - loss: 0.7191 -
 y1_output_loss: 0.1682 - y2_output_loss: 0.5491 -
 y1_output_root_mean_squared_error: 0.4103 - y2_output_root_mean_squared_error:
 0.7421 - val_loss: 1.0597 - val_y1_output_loss: 0.2829 - val_y2_output_loss:
 0.7737 - val_y1_output_root_mean_squared_error: 0.5268 -
 val_y2_output_root_mean_squared_error: 0.8844
 Epoch 322/500
 614/614 [=====] - 0s 132us/sample - loss: 1.0559 -
 y1_output_loss: 0.2361 - y2_output_loss: 0.8190 -
 y1_output_root_mean_squared_error: 0.4860 - y2_output_root_mean_squared_error:
 0.9054 - val_loss: 1.9959 - val_y1_output_loss: 0.1997 - val_y2_output_loss:
 1.7338 - val_y1_output_root_mean_squared_error: 0.4507 -
 val_y2_output_root_mean_squared_error: 1.3389
 Epoch 323/500
 614/614 [=====] - 0s 133us/sample - loss: 0.8344 -
 y1_output_loss: 0.2023 - y2_output_loss: 0.6269 -
 y1_output_root_mean_squared_error: 0.4496 - y2_output_root_mean_squared_error:
 0.7951 - val_loss: 0.9211 - val_y1_output_loss: 0.2017 - val_y2_output_loss:
 0.7093 - val_y1_output_root_mean_squared_error: 0.4564 -
 val_y2_output_root_mean_squared_error: 0.8443
 Epoch 324/500
 614/614 [=====] - 0s 129us/sample - loss: 0.8266 -
 y1_output_loss: 0.2093 - y2_output_loss: 0.6104 -
 y1_output_root_mean_squared_error: 0.4590 - y2_output_root_mean_squared_error:
 0.7848 - val_loss: 0.9046 - val_y1_output_loss: 0.2123 - val_y2_output_loss:
 0.6717 - val_y1_output_root_mean_squared_error: 0.4666 -
 val_y2_output_root_mean_squared_error: 0.8288
 Epoch 325/500
 614/614 [=====] - 0s 129us/sample - loss: 1.1274 -
 y1_output_loss: 0.2143 - y2_output_loss: 0.9145 -

y1_output_root_mean_squared_error: 0.4625 - y2_output_root_mean_squared_error:
0.9558 - val_loss: 2.3915 - val_y1_output_loss: 0.7109 - val_y2_output_loss:
1.6593 - val_y1_output_root_mean_squared_error: 0.8524 -
val_y2_output_root_mean_squared_error: 1.2903
Epoch 326/500
614/614 [=====] - 0s 130us/sample - loss: 0.7533 -
y1_output_loss: 0.1759 - y2_output_loss: 0.5737 -
y1_output_root_mean_squared_error: 0.4193 - y2_output_root_mean_squared_error:
0.7599 - val_loss: 1.0398 - val_y1_output_loss: 0.2526 - val_y2_output_loss:
0.7618 - val_y1_output_root_mean_squared_error: 0.5090 -
val_y2_output_root_mean_squared_error: 0.8836
Epoch 327/500
614/614 [=====] - 0s 132us/sample - loss: 0.6498 -
y1_output_loss: 0.1557 - y2_output_loss: 0.5010 -
y1_output_root_mean_squared_error: 0.3953 - y2_output_root_mean_squared_error:
0.7025 - val_loss: 0.9694 - val_y1_output_loss: 0.1739 - val_y2_output_loss:
0.7818 - val_y1_output_root_mean_squared_error: 0.4211 -
val_y2_output_root_mean_squared_error: 0.8900
Epoch 328/500
614/614 [=====] - 0s 130us/sample - loss: 0.9345 -
y1_output_loss: 0.1975 - y2_output_loss: 0.7428 -
y1_output_root_mean_squared_error: 0.4447 - y2_output_root_mean_squared_error:
0.8583 - val_loss: 2.0085 - val_y1_output_loss: 0.2378 - val_y2_output_loss:
1.7106 - val_y1_output_root_mean_squared_error: 0.4851 -
val_y2_output_root_mean_squared_error: 1.3316
Epoch 329/500
614/614 [=====] - 0s 129us/sample - loss: 0.7267 -
y1_output_loss: 0.1749 - y2_output_loss: 0.5502 -
y1_output_root_mean_squared_error: 0.4182 - y2_output_root_mean_squared_error:
0.7429 - val_loss: 1.3687 - val_y1_output_loss: 0.3648 - val_y2_output_loss:
0.9819 - val_y1_output_root_mean_squared_error: 0.6021 -
val_y2_output_root_mean_squared_error: 1.0031
Epoch 330/500
614/614 [=====] - 0s 137us/sample - loss: 0.6405 -
y1_output_loss: 0.1645 - y2_output_loss: 0.4718 -
y1_output_root_mean_squared_error: 0.4059 - y2_output_root_mean_squared_error:
0.6898 - val_loss: 0.7602 - val_y1_output_loss: 0.1581 - val_y2_output_loss:
0.5857 - val_y1_output_root_mean_squared_error: 0.4001 -
val_y2_output_root_mean_squared_error: 0.7746
Epoch 331/500
614/614 [=====] - 0s 134us/sample - loss: 0.6954 -
y1_output_loss: 0.1763 - y2_output_loss: 0.5139 -
y1_output_root_mean_squared_error: 0.4208 - y2_output_root_mean_squared_error:
0.7199 - val_loss: 1.0595 - val_y1_output_loss: 0.2191 - val_y2_output_loss:
0.8141 - val_y1_output_root_mean_squared_error: 0.4686 -
val_y2_output_root_mean_squared_error: 0.9165
Epoch 332/500
614/614 [=====] - 0s 130us/sample - loss: 0.8046 -

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y1_output_loss: 0.1911 - y2_output_loss: 0.6118 -
y1_output_root_mean_squared_error: 0.4367 - y2_output_root_mean_squared_error:
0.7835 - val_loss: 1.4050 - val_y1_output_loss: 0.1699 - val_y2_output_loss:
1.2427 - val_y1_output_root_mean_squared_error: 0.4144 -
val_y2_output_root_mean_squared_error: 1.1105
Epoch 333/500
614/614 [=====] - 0s 132us/sample - loss: 0.6346 -
y1_output_loss: 0.1504 - y2_output_loss: 0.4841 -
y1_output_root_mean_squared_error: 0.3881 - y2_output_root_mean_squared_error:
0.6957 - val_loss: 1.4488 - val_y1_output_loss: 0.4016 - val_y2_output_loss:
1.0187 - val_y1_output_root_mean_squared_error: 0.6284 -
val_y2_output_root_mean_squared_error: 1.0266
Epoch 334/500
614/614 [=====] - 0s 135us/sample - loss: 0.6132 -
y1_output_loss: 0.1701 - y2_output_loss: 0.4478 -
y1_output_root_mean_squared_error: 0.4111 - y2_output_root_mean_squared_error:
0.6665 - val_loss: 1.8626 - val_y1_output_loss: 0.2686 - val_y2_output_loss:
1.5462 - val_y1_output_root_mean_squared_error: 0.5174 -
val_y2_output_root_mean_squared_error: 1.2629
Epoch 335/500
614/614 [=====] - 0s 134us/sample - loss: 0.9044 -
y1_output_loss: 0.1893 - y2_output_loss: 0.7094 -
y1_output_root_mean_squared_error: 0.4366 - y2_output_root_mean_squared_error:
0.8449 - val_loss: 0.8255 - val_y1_output_loss: 0.1879 - val_y2_output_loss:
0.6320 - val_y1_output_root_mean_squared_error: 0.4407 -
val_y2_output_root_mean_squared_error: 0.7945
Epoch 336/500
614/614 [=====] - 0s 131us/sample - loss: 0.8714 -
y1_output_loss: 0.1805 - y2_output_loss: 0.6996 -
y1_output_root_mean_squared_error: 0.4261 - y2_output_root_mean_squared_error:
0.8306 - val_loss: 2.3624 - val_y1_output_loss: 0.3065 - val_y2_output_loss:
2.0341 - val_y1_output_root_mean_squared_error: 0.5642 -
val_y2_output_root_mean_squared_error: 1.4297
Epoch 337/500
614/614 [=====] - 0s 134us/sample - loss: 0.7380 -
y1_output_loss: 0.1656 - y2_output_loss: 0.5689 -
y1_output_root_mean_squared_error: 0.4076 - y2_output_root_mean_squared_error:
0.7562 - val_loss: 1.3590 - val_y1_output_loss: 0.2821 - val_y2_output_loss:
1.0485 - val_y1_output_root_mean_squared_error: 0.5393 -
val_y2_output_root_mean_squared_error: 1.0336
Epoch 338/500
614/614 [=====] - 0s 130us/sample - loss: 0.6386 -
y1_output_loss: 0.1667 - y2_output_loss: 0.4743 -
y1_output_root_mean_squared_error: 0.4099 - y2_output_root_mean_squared_error:
0.6860 - val_loss: 1.1157 - val_y1_output_loss: 0.1848 - val_y2_output_loss:
0.9239 - val_y1_output_root_mean_squared_error: 0.4362 -
val_y2_output_root_mean_squared_error: 0.9620
Epoch 339/500

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614/614 [=====] - 0s 129us/sample - loss: 0.9517 -
y1_output_loss: 0.1944 - y2_output_loss: 0.7545 -
y1_output_root_mean_squared_error: 0.4419 - y2_output_root_mean_squared_error:
0.8698 - val_loss: 1.4167 - val_y1_output_loss: 0.3993 - val_y2_output_loss:
0.9761 - val_y1_output_root_mean_squared_error: 0.6378 -
val_y2_output_root_mean_squared_error: 1.0049
Epoch 340/500
614/614 [=====] - 0s 132us/sample - loss: 0.8577 -
y1_output_loss: 0.2052 - y2_output_loss: 0.6447 -
y1_output_root_mean_squared_error: 0.4547 - y2_output_root_mean_squared_error:
0.8068 - val_loss: 0.8808 - val_y1_output_loss: 0.2009 - val_y2_output_loss:
0.6796 - val_y1_output_root_mean_squared_error: 0.4559 -
val_y2_output_root_mean_squared_error: 0.8204
Epoch 341/500
614/614 [=====] - 0s 128us/sample - loss: 0.5885 -
y1_output_loss: 0.1602 - y2_output_loss: 0.4314 -
y1_output_root_mean_squared_error: 0.3989 - y2_output_root_mean_squared_error:
0.6553 - val_loss: 0.8950 - val_y1_output_loss: 0.1860 - val_y2_output_loss:
0.7149 - val_y1_output_root_mean_squared_error: 0.4354 -
val_y2_output_root_mean_squared_error: 0.8399
Epoch 342/500
614/614 [=====] - 0s 129us/sample - loss: 0.6434 -
y1_output_loss: 0.1401 - y2_output_loss: 0.5035 -
y1_output_root_mean_squared_error: 0.3703 - y2_output_root_mean_squared_error:
0.7115 - val_loss: 1.2369 - val_y1_output_loss: 0.3804 - val_y2_output_loss:
0.8349 - val_y1_output_root_mean_squared_error: 0.6128 -
val_y2_output_root_mean_squared_error: 0.9282
Epoch 343/500
614/614 [=====] - 0s 130us/sample - loss: 0.7493 -
y1_output_loss: 0.1712 - y2_output_loss: 0.5861 -
y1_output_root_mean_squared_error: 0.4117 - y2_output_root_mean_squared_error:
0.7614 - val_loss: 0.9911 - val_y1_output_loss: 0.2550 - val_y2_output_loss:
0.7187 - val_y1_output_root_mean_squared_error: 0.5101 -
val_y2_output_root_mean_squared_error: 0.8549
Epoch 344/500
614/614 [=====] - 0s 130us/sample - loss: 0.7055 -
y1_output_loss: 0.1722 - y2_output_loss: 0.5467 -
y1_output_root_mean_squared_error: 0.4144 - y2_output_root_mean_squared_error:
0.7306 - val_loss: 4.6222 - val_y1_output_loss: 0.7898 - val_y2_output_loss:
3.8694 - val_y1_output_root_mean_squared_error: 0.8969 -
val_y2_output_root_mean_squared_error: 1.9539
Epoch 345/500
614/614 [=====] - 0s 130us/sample - loss: 0.9819 -
y1_output_loss: 0.2312 - y2_output_loss: 0.7473 -
y1_output_root_mean_squared_error: 0.4788 - y2_output_root_mean_squared_error:
0.8676 - val_loss: 0.7565 - val_y1_output_loss: 0.1807 - val_y2_output_loss:
0.5600 - val_y1_output_root_mean_squared_error: 0.4327 -
val_y2_output_root_mean_squared_error: 0.7545

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Epoch 346/500
614/614 [=====] - 0s 132us/sample - loss: 0.5988 -
y1_output_loss: 0.1553 - y2_output_loss: 0.4438 -
y1_output_root_mean_squared_error: 0.3948 - y2_output_root_mean_squared_error:
0.6655 - val_loss: 1.0096 - val_y1_output_loss: 0.2395 - val_y2_output_loss:
0.7508 - val_y1_output_root_mean_squared_error: 0.4913 -
val_y2_output_root_mean_squared_error: 0.8765
Epoch 347/500
614/614 [=====] - 0s 130us/sample - loss: 0.6275 -
y1_output_loss: 0.1672 - y2_output_loss: 0.4585 -
y1_output_root_mean_squared_error: 0.4088 - y2_output_root_mean_squared_error:
0.6785 - val_loss: 1.2228 - val_y1_output_loss: 0.4123 - val_y2_output_loss:
0.8014 - val_y1_output_root_mean_squared_error: 0.6408 -
val_y2_output_root_mean_squared_error: 0.9012
Epoch 348/500
614/614 [=====] - 0s 129us/sample - loss: 0.5692 -
y1_output_loss: 0.1437 - y2_output_loss: 0.4233 -
y1_output_root_mean_squared_error: 0.3793 - y2_output_root_mean_squared_error:
0.6521 - val_loss: 1.0104 - val_y1_output_loss: 0.2014 - val_y2_output_loss:
0.7984 - val_y1_output_root_mean_squared_error: 0.4539 -
val_y2_output_root_mean_squared_error: 0.8969
Epoch 349/500
614/614 [=====] - 0s 129us/sample - loss: 0.7590 -
y1_output_loss: 0.1901 - y2_output_loss: 0.5654 -
y1_output_root_mean_squared_error: 0.4369 - y2_output_root_mean_squared_error:
0.7537 - val_loss: 0.9031 - val_y1_output_loss: 0.1913 - val_y2_output_loss:
0.6983 - val_y1_output_root_mean_squared_error: 0.4421 -
val_y2_output_root_mean_squared_error: 0.8412
Epoch 350/500
614/614 [=====] - 0s 132us/sample - loss: 0.5778 -
y1_output_loss: 0.1481 - y2_output_loss: 0.4339 -
y1_output_root_mean_squared_error: 0.3858 - y2_output_root_mean_squared_error:
0.6549 - val_loss: 1.8546 - val_y1_output_loss: 0.2621 - val_y2_output_loss:
1.5691 - val_y1_output_root_mean_squared_error: 0.5213 -
val_y2_output_root_mean_squared_error: 1.2581
Epoch 351/500
614/614 [=====] - 0s 131us/sample - loss: 0.5073 -
y1_output_loss: 0.1386 - y2_output_loss: 0.3665 -
y1_output_root_mean_squared_error: 0.3723 - y2_output_root_mean_squared_error:
0.6072 - val_loss: 0.9704 - val_y1_output_loss: 0.2279 - val_y2_output_loss:
0.7237 - val_y1_output_root_mean_squared_error: 0.4840 -
val_y2_output_root_mean_squared_error: 0.8580
Epoch 352/500
614/614 [=====] - 0s 128us/sample - loss: 0.7387 -
y1_output_loss: 0.2098 - y2_output_loss: 0.5303 -
y1_output_root_mean_squared_error: 0.4583 - y2_output_root_mean_squared_error:
0.7271 - val_loss: 2.2139 - val_y1_output_loss: 0.2902 - val_y2_output_loss:
1.9154 - val_y1_output_root_mean_squared_error: 0.5477 -

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val_y2_output_root_mean_squared_error: 1.3835
Epoch 353/500
614/614 [=====] - 0s 129us/sample - loss: 0.8393 -
y1_output_loss: 0.1771 - y2_output_loss: 0.6589 -
y1_output_root_mean_squared_error: 0.4209 - y2_output_root_mean_squared_error:
0.8137 - val_loss: 0.8830 - val_y1_output_loss: 0.1998 - val_y2_output_loss:
0.6653 - val_y1_output_root_mean_squared_error: 0.4481 -
val_y2_output_root_mean_squared_error: 0.8259
Epoch 354/500
614/614 [=====] - 0s 132us/sample - loss: 0.8520 -
y1_output_loss: 0.1997 - y2_output_loss: 0.6466 -
y1_output_root_mean_squared_error: 0.4483 - y2_output_root_mean_squared_error:
0.8068 - val_loss: 0.7449 - val_y1_output_loss: 0.1571 - val_y2_output_loss:
0.5691 - val_y1_output_root_mean_squared_error: 0.4016 -
val_y2_output_root_mean_squared_error: 0.7639
Epoch 355/500
614/614 [=====] - 0s 131us/sample - loss: 0.6541 -
y1_output_loss: 0.1508 - y2_output_loss: 0.5029 -
y1_output_root_mean_squared_error: 0.3863 - y2_output_root_mean_squared_error:
0.7105 - val_loss: 1.2131 - val_y1_output_loss: 0.3278 - val_y2_output_loss:
0.8576 - val_y1_output_root_mean_squared_error: 0.5826 -
val_y2_output_root_mean_squared_error: 0.9347
Epoch 356/500
614/614 [=====] - 0s 131us/sample - loss: 0.5554 -
y1_output_loss: 0.1444 - y2_output_loss: 0.4138 -
y1_output_root_mean_squared_error: 0.3793 - y2_output_root_mean_squared_error:
0.6415 - val_loss: 2.4929 - val_y1_output_loss: 0.4761 - val_y2_output_loss:
1.9464 - val_y1_output_root_mean_squared_error: 0.6902 -
val_y2_output_root_mean_squared_error: 1.4200
Epoch 357/500
614/614 [=====] - 0s 137us/sample - loss: 0.7677 -
y1_output_loss: 0.1900 - y2_output_loss: 0.5763 -
y1_output_root_mean_squared_error: 0.4356 - y2_output_root_mean_squared_error:
0.7603 - val_loss: 0.8626 - val_y1_output_loss: 0.2016 - val_y2_output_loss:
0.6446 - val_y1_output_root_mean_squared_error: 0.4543 -
val_y2_output_root_mean_squared_error: 0.8100
Epoch 358/500
614/614 [=====] - 0s 137us/sample - loss: 0.5443 -
y1_output_loss: 0.1479 - y2_output_loss: 0.4097 -
y1_output_root_mean_squared_error: 0.3840 - y2_output_root_mean_squared_error:
0.6299 - val_loss: 3.7336 - val_y1_output_loss: 0.5367 - val_y2_output_loss:
3.1244 - val_y1_output_root_mean_squared_error: 0.7446 -
val_y2_output_root_mean_squared_error: 1.7830
Epoch 359/500
614/614 [=====] - 0s 148us/sample - loss: 0.6770 -
y1_output_loss: 0.1535 - y2_output_loss: 0.5222 -
y1_output_root_mean_squared_error: 0.3932 - y2_output_root_mean_squared_error:
0.7228 - val_loss: 1.2924 - val_y1_output_loss: 0.3025 - val_y2_output_loss:

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0.9791 - val_y1_output_root_mean_squared_error: 0.5336 -
 val_y2_output_root_mean_squared_error: 1.0038
 Epoch 360/500
 614/614 [=====] - 0s 133us/sample - loss: 0.5758 -
 y1_output_loss: 0.1533 - y2_output_loss: 0.4179 -
 y1_output_root_mean_squared_error: 0.3925 - y2_output_root_mean_squared_error:
 0.6495 - val_loss: 0.7875 - val_y1_output_loss: 0.1835 - val_y2_output_loss:
 0.5868 - val_y1_output_root_mean_squared_error: 0.4270 -
 val_y2_output_root_mean_squared_error: 0.7779
 Epoch 361/500
 614/614 [=====] - 0s 138us/sample - loss: 0.6624 -
 y1_output_loss: 0.1544 - y2_output_loss: 0.5047 -
 y1_output_root_mean_squared_error: 0.3921 - y2_output_root_mean_squared_error:
 0.7132 - val_loss: 1.7171 - val_y1_output_loss: 0.4217 - val_y2_output_loss:
 1.2872 - val_y1_output_root_mean_squared_error: 0.6615 -
 val_y2_output_root_mean_squared_error: 1.1312
 Epoch 362/500
 614/614 [=====] - 0s 131us/sample - loss: 0.6521 -
 y1_output_loss: 0.1727 - y2_output_loss: 0.4784 -
 y1_output_root_mean_squared_error: 0.4146 - y2_output_root_mean_squared_error:
 0.6930 - val_loss: 1.0430 - val_y1_output_loss: 0.2833 - val_y2_output_loss:
 0.7467 - val_y1_output_root_mean_squared_error: 0.5277 -
 val_y2_output_root_mean_squared_error: 0.8744
 Epoch 363/500
 614/614 [=====] - 0s 135us/sample - loss: 0.5870 -
 y1_output_loss: 0.1610 - y2_output_loss: 0.4426 -
 y1_output_root_mean_squared_error: 0.3990 - y2_output_root_mean_squared_error:
 0.6541 - val_loss: 2.4168 - val_y1_output_loss: 0.4436 - val_y2_output_loss:
 1.8967 - val_y1_output_root_mean_squared_error: 0.6716 -
 val_y2_output_root_mean_squared_error: 1.4021
 Epoch 364/500
 614/614 [=====] - 0s 145us/sample - loss: 0.8121 -
 y1_output_loss: 0.2038 - y2_output_loss: 0.6009 -
 y1_output_root_mean_squared_error: 0.4532 - y2_output_root_mean_squared_error:
 0.7789 - val_loss: 0.7288 - val_y1_output_loss: 0.1723 - val_y2_output_loss:
 0.5562 - val_y1_output_root_mean_squared_error: 0.4220 -
 val_y2_output_root_mean_squared_error: 0.7421
 Epoch 365/500
 614/614 [=====] - 0s 138us/sample - loss: 0.7223 -
 y1_output_loss: 0.1844 - y2_output_loss: 0.5346 -
 y1_output_root_mean_squared_error: 0.4290 - y2_output_root_mean_squared_error:
 0.7336 - val_loss: 1.0048 - val_y1_output_loss: 0.2302 - val_y2_output_loss:
 0.7707 - val_y1_output_root_mean_squared_error: 0.4760 -
 val_y2_output_root_mean_squared_error: 0.8822
 Epoch 366/500
 614/614 [=====] - 0s 138us/sample - loss: 0.6983 -
 y1_output_loss: 0.1656 - y2_output_loss: 0.5423 -
 y1_output_root_mean_squared_error: 0.4074 - y2_output_root_mean_squared_error:

0.7296 - val_loss: 1.5369 - val_y1_output_loss: 0.2774 - val_y2_output_loss:
 1.2622 - val_y1_output_root_mean_squared_error: 0.5319 -
 val_y2_output_root_mean_squared_error: 1.1198
 Epoch 367/500
 614/614 [=====] - 0s 132us/sample - loss: 0.6256 -
 y1_output_loss: 0.1799 - y2_output_loss: 0.4587 -
 y1_output_root_mean_squared_error: 0.4151 - y2_output_root_mean_squared_error:
 0.6732 - val_loss: 3.4450 - val_y1_output_loss: 0.9608 - val_y2_output_loss:
 2.3925 - val_y1_output_root_mean_squared_error: 0.9842 -
 val_y2_output_root_mean_squared_error: 1.5737
 Epoch 368/500
 614/614 [=====] - 0s 132us/sample - loss: 0.5581 -
 y1_output_loss: 0.1530 - y2_output_loss: 0.4037 -
 y1_output_root_mean_squared_error: 0.3902 - y2_output_root_mean_squared_error:
 0.6370 - val_loss: 1.3026 - val_y1_output_loss: 0.3809 - val_y2_output_loss:
 0.9231 - val_y1_output_root_mean_squared_error: 0.6085 -
 val_y2_output_root_mean_squared_error: 0.9656
 Epoch 369/500
 614/614 [=====] - 0s 132us/sample - loss: 0.7190 -
 y1_output_loss: 0.1720 - y2_output_loss: 0.5468 -
 y1_output_root_mean_squared_error: 0.4164 - y2_output_root_mean_squared_error:
 0.7387 - val_loss: 0.9119 - val_y1_output_loss: 0.1706 - val_y2_output_loss:
 0.7453 - val_y1_output_root_mean_squared_error: 0.4149 -
 val_y2_output_root_mean_squared_error: 0.8601
 Epoch 370/500
 614/614 [=====] - 0s 132us/sample - loss: 0.6532 -
 y1_output_loss: 0.1580 - y2_output_loss: 0.4897 -
 y1_output_root_mean_squared_error: 0.3992 - y2_output_root_mean_squared_error:
 0.7028 - val_loss: 0.7701 - val_y1_output_loss: 0.1931 - val_y2_output_loss:
 0.5711 - val_y1_output_root_mean_squared_error: 0.4328 -
 val_y2_output_root_mean_squared_error: 0.7634
 Epoch 371/500
 614/614 [=====] - 0s 143us/sample - loss: 0.5926 -
 y1_output_loss: 0.1641 - y2_output_loss: 0.4281 -
 y1_output_root_mean_squared_error: 0.4053 - y2_output_root_mean_squared_error:
 0.6544 - val_loss: 1.0329 - val_y1_output_loss: 0.2522 - val_y2_output_loss:
 0.7757 - val_y1_output_root_mean_squared_error: 0.5074 -
 val_y2_output_root_mean_squared_error: 0.8806
 Epoch 372/500
 614/614 [=====] - 0s 137us/sample - loss: 0.5926 -
 y1_output_loss: 0.1586 - y2_output_loss: 0.4411 -
 y1_output_root_mean_squared_error: 0.3990 - y2_output_root_mean_squared_error:
 0.6583 - val_loss: 1.3994 - val_y1_output_loss: 0.1846 - val_y2_output_loss:
 1.1851 - val_y1_output_root_mean_squared_error: 0.4326 -
 val_y2_output_root_mean_squared_error: 1.1011
 Epoch 373/500
 614/614 [=====] - 0s 138us/sample - loss: 0.4755 -
 y1_output_loss: 0.1241 - y2_output_loss: 0.3479 -

y1_output_root_mean_squared_error: 0.3535 - y2_output_root_mean_squared_error:
 0.5921 - val_loss: 0.6743 - val_y1_output_loss: 0.1616 - val_y2_output_loss:
 0.5056 - val_y1_output_root_mean_squared_error: 0.4035 -
 val_y2_output_root_mean_squared_error: 0.7152
 Epoch 374/500
 614/614 [=====] - 0s 137us/sample - loss: 0.5080 -
 y1_output_loss: 0.1441 - y2_output_loss: 0.3624 -
 y1_output_root_mean_squared_error: 0.3809 - y2_output_root_mean_squared_error:
 0.6024 - val_loss: 0.7383 - val_y1_output_loss: 0.1457 - val_y2_output_loss:
 0.5849 - val_y1_output_root_mean_squared_error: 0.3831 -
 val_y2_output_root_mean_squared_error: 0.7691
 Epoch 375/500
 614/614 [=====] - 0s 136us/sample - loss: 0.5839 -
 y1_output_loss: 0.1607 - y2_output_loss: 0.4209 -
 y1_output_root_mean_squared_error: 0.4014 - y2_output_root_mean_squared_error:
 0.6502 - val_loss: 0.8888 - val_y1_output_loss: 0.2519 - val_y2_output_loss:
 0.6547 - val_y1_output_root_mean_squared_error: 0.4948 -
 val_y2_output_root_mean_squared_error: 0.8025
 Epoch 376/500
 614/614 [=====] - 0s 137us/sample - loss: 0.8591 -
 y1_output_loss: 0.2058 - y2_output_loss: 0.6499 -
 y1_output_root_mean_squared_error: 0.4551 - y2_output_root_mean_squared_error:
 0.8075 - val_loss: 0.7766 - val_y1_output_loss: 0.1562 - val_y2_output_loss:
 0.6222 - val_y1_output_root_mean_squared_error: 0.3977 -
 val_y2_output_root_mean_squared_error: 0.7864
 Epoch 377/500
 614/614 [=====] - 0s 147us/sample - loss: 0.7554 -
 y1_output_loss: 0.1695 - y2_output_loss: 0.5824 -
 y1_output_root_mean_squared_error: 0.4135 - y2_output_root_mean_squared_error:
 0.7644 - val_loss: 1.0019 - val_y1_output_loss: 0.1816 - val_y2_output_loss:
 0.8257 - val_y1_output_root_mean_squared_error: 0.4304 -
 val_y2_output_root_mean_squared_error: 0.9037
 Epoch 378/500
 614/614 [=====] - 0s 149us/sample - loss: 0.6488 -
 y1_output_loss: 0.1704 - y2_output_loss: 0.4775 -
 y1_output_root_mean_squared_error: 0.4132 - y2_output_root_mean_squared_error:
 0.6915 - val_loss: 0.6794 - val_y1_output_loss: 0.1757 - val_y2_output_loss:
 0.4945 - val_y1_output_root_mean_squared_error: 0.4220 -
 val_y2_output_root_mean_squared_error: 0.7081
 Epoch 379/500
 614/614 [=====] - 0s 139us/sample - loss: 0.5185 -
 y1_output_loss: 0.1501 - y2_output_loss: 0.3688 -
 y1_output_root_mean_squared_error: 0.3868 - y2_output_root_mean_squared_error:
 0.6073 - val_loss: 0.7602 - val_y1_output_loss: 0.2117 - val_y2_output_loss:
 0.5379 - val_y1_output_root_mean_squared_error: 0.4660 -
 val_y2_output_root_mean_squared_error: 0.7369
 Epoch 380/500
 614/614 [=====] - 0s 135us/sample - loss: 0.5100 -

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y1_output_loss: 0.1228 - y2_output_loss: 0.3838 -
y1_output_root_mean_squared_error: 0.3510 - y2_output_root_mean_squared_error:
0.6219 - val_loss: 0.8584 - val_y1_output_loss: 0.2387 - val_y2_output_loss:
0.6069 - val_y1_output_root_mean_squared_error: 0.4819 -
val_y2_output_root_mean_squared_error: 0.7914
Epoch 381/500
614/614 [=====] - 0s 135us/sample - loss: 0.5412 -
y1_output_loss: 0.1360 - y2_output_loss: 0.4046 -
y1_output_root_mean_squared_error: 0.3692 - y2_output_root_mean_squared_error:
0.6363 - val_loss: 0.8450 - val_y1_output_loss: 0.2126 - val_y2_output_loss:
0.6267 - val_y1_output_root_mean_squared_error: 0.4495 -
val_y2_output_root_mean_squared_error: 0.8018
Epoch 382/500
614/614 [=====] - 0s 136us/sample - loss: 0.5940 -
y1_output_loss: 0.1654 - y2_output_loss: 0.4286 -
y1_output_root_mean_squared_error: 0.4073 - y2_output_root_mean_squared_error:
0.6543 - val_loss: 1.2604 - val_y1_output_loss: 0.3938 - val_y2_output_loss:
0.8596 - val_y1_output_root_mean_squared_error: 0.6392 -
val_y2_output_root_mean_squared_error: 0.9229
Epoch 383/500
614/614 [=====] - 0s 131us/sample - loss: 0.4936 -
y1_output_loss: 0.1480 - y2_output_loss: 0.3420 -
y1_output_root_mean_squared_error: 0.3854 - y2_output_root_mean_squared_error:
0.5874 - val_loss: 0.7849 - val_y1_output_loss: 0.2382 - val_y2_output_loss:
0.5311 - val_y1_output_root_mean_squared_error: 0.4931 -
val_y2_output_root_mean_squared_error: 0.7360
Epoch 384/500
614/614 [=====] - 0s 129us/sample - loss: 0.6288 -
y1_output_loss: 0.1692 - y2_output_loss: 0.4556 -
y1_output_root_mean_squared_error: 0.4117 - y2_output_root_mean_squared_error:
0.6777 - val_loss: 0.9488 - val_y1_output_loss: 0.1523 - val_y2_output_loss:
0.7832 - val_y1_output_root_mean_squared_error: 0.3905 -
val_y2_output_root_mean_squared_error: 0.8923
Epoch 385/500
614/614 [=====] - 0s 132us/sample - loss: 0.6385 -
y1_output_loss: 0.1752 - y2_output_loss: 0.4666 -
y1_output_root_mean_squared_error: 0.4164 - y2_output_root_mean_squared_error:
0.6820 - val_loss: 1.4141 - val_y1_output_loss: 0.3057 - val_y2_output_loss:
1.0617 - val_y1_output_root_mean_squared_error: 0.5604 -
val_y2_output_root_mean_squared_error: 1.0489
Epoch 386/500
614/614 [=====] - 0s 138us/sample - loss: 0.5544 -
y1_output_loss: 0.1510 - y2_output_loss: 0.4040 -
y1_output_root_mean_squared_error: 0.3890 - y2_output_root_mean_squared_error:
0.6349 - val_loss: 1.1770 - val_y1_output_loss: 0.1599 - val_y2_output_loss:
1.0174 - val_y1_output_root_mean_squared_error: 0.4033 -
val_y2_output_root_mean_squared_error: 1.0071
Epoch 387/500

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614/614 [=====] - 0s 135us/sample - loss: 0.5623 -
y1_output_loss: 0.1443 - y2_output_loss: 0.4134 -
y1_output_root_mean_squared_error: 0.3816 - y2_output_root_mean_squared_error:
0.6455 - val_loss: 0.7178 - val_y1_output_loss: 0.1648 - val_y2_output_loss:
0.5442 - val_y1_output_root_mean_squared_error: 0.4090 -
val_y2_output_root_mean_squared_error: 0.7420
Epoch 388/500
614/614 [=====] - 0s 134us/sample - loss: 0.5519 -
y1_output_loss: 0.1594 - y2_output_loss: 0.3949 -
y1_output_root_mean_squared_error: 0.4010 - y2_output_root_mean_squared_error:
0.6254 - val_loss: 1.5379 - val_y1_output_loss: 0.1676 - val_y2_output_loss:
1.3614 - val_y1_output_root_mean_squared_error: 0.4135 -
val_y2_output_root_mean_squared_error: 1.1692
Epoch 389/500
614/614 [=====] - 0s 134us/sample - loss: 0.4758 -
y1_output_loss: 0.1205 - y2_output_loss: 0.3521 -
y1_output_root_mean_squared_error: 0.3475 - y2_output_root_mean_squared_error:
0.5959 - val_loss: 0.6922 - val_y1_output_loss: 0.1700 - val_y2_output_loss:
0.5124 - val_y1_output_root_mean_squared_error: 0.4196 -
val_y2_output_root_mean_squared_error: 0.7184
Epoch 390/500
614/614 [=====] - 0s 134us/sample - loss: 0.5089 -
y1_output_loss: 0.1400 - y2_output_loss: 0.3686 -
y1_output_root_mean_squared_error: 0.3741 - y2_output_root_mean_squared_error:
0.6074 - val_loss: 0.8955 - val_y1_output_loss: 0.2283 - val_y2_output_loss:
0.6522 - val_y1_output_root_mean_squared_error: 0.4859 -
val_y2_output_root_mean_squared_error: 0.8120
Epoch 391/500
614/614 [=====] - 0s 146us/sample - loss: 0.4637 -
y1_output_loss: 0.1348 - y2_output_loss: 0.3271 -
y1_output_root_mean_squared_error: 0.3677 - y2_output_root_mean_squared_error:
0.5732 - val_loss: 1.0661 - val_y1_output_loss: 0.2488 - val_y2_output_loss:
0.7898 - val_y1_output_root_mean_squared_error: 0.4974 -
val_y2_output_root_mean_squared_error: 0.9048
Epoch 392/500
614/614 [=====] - 0s 130us/sample - loss: 0.5365 -
y1_output_loss: 0.1414 - y2_output_loss: 0.3936 -
y1_output_root_mean_squared_error: 0.3763 - y2_output_root_mean_squared_error:
0.6284 - val_loss: 1.1562 - val_y1_output_loss: 0.2610 - val_y2_output_loss:
0.8614 - val_y1_output_root_mean_squared_error: 0.5119 -
val_y2_output_root_mean_squared_error: 0.9456
Epoch 393/500
614/614 [=====] - 0s 130us/sample - loss: 0.7362 -
y1_output_loss: 0.1608 - y2_output_loss: 0.5754 -
y1_output_root_mean_squared_error: 0.4026 - y2_output_root_mean_squared_error:
0.7577 - val_loss: 0.9126 - val_y1_output_loss: 0.2141 - val_y2_output_loss:
0.6935 - val_y1_output_root_mean_squared_error: 0.4611 -
val_y2_output_root_mean_squared_error: 0.8366

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Epoch 394/500
614/614 [=====] - 0s 136us/sample - loss: 0.5441 -
y1_output_loss: 0.1430 - y2_output_loss: 0.3974 -
y1_output_root_mean_squared_error: 0.3791 - y2_output_root_mean_squared_error:
0.6327 - val_loss: 0.7089 - val_y1_output_loss: 0.1557 - val_y2_output_loss:
0.5413 - val_y1_output_root_mean_squared_error: 0.3954 -
val_y2_output_root_mean_squared_error: 0.7433
Epoch 395/500
614/614 [=====] - 0s 130us/sample - loss: 0.5952 -
y1_output_loss: 0.1582 - y2_output_loss: 0.4334 -
y1_output_root_mean_squared_error: 0.3991 - y2_output_root_mean_squared_error:
0.6603 - val_loss: 0.9486 - val_y1_output_loss: 0.2471 - val_y2_output_loss:
0.6964 - val_y1_output_root_mean_squared_error: 0.5049 -
val_y2_output_root_mean_squared_error: 0.8329
Epoch 396/500
614/614 [=====] - 0s 129us/sample - loss: 0.4902 -
y1_output_loss: 0.1333 - y2_output_loss: 0.3531 -
y1_output_root_mean_squared_error: 0.3663 - y2_output_root_mean_squared_error:
0.5966 - val_loss: 0.6719 - val_y1_output_loss: 0.1822 - val_y2_output_loss:
0.4752 - val_y1_output_root_mean_squared_error: 0.4269 -
val_y2_output_root_mean_squared_error: 0.6997
Epoch 397/500
614/614 [=====] - 0s 141us/sample - loss: 0.5990 -
y1_output_loss: 0.1541 - y2_output_loss: 0.4409 -
y1_output_root_mean_squared_error: 0.3940 - y2_output_root_mean_squared_error:
0.6662 - val_loss: 0.8400 - val_y1_output_loss: 0.1667 - val_y2_output_loss:
0.6610 - val_y1_output_root_mean_squared_error: 0.4142 -
val_y2_output_root_mean_squared_error: 0.8176
Epoch 398/500
614/614 [=====] - 0s 142us/sample - loss: 0.5474 -
y1_output_loss: 0.1474 - y2_output_loss: 0.4043 -
y1_output_root_mean_squared_error: 0.3849 - y2_output_root_mean_squared_error:
0.6319 - val_loss: 0.7494 - val_y1_output_loss: 0.1759 - val_y2_output_loss:
0.5562 - val_y1_output_root_mean_squared_error: 0.4185 -
val_y2_output_root_mean_squared_error: 0.7578
Epoch 399/500
614/614 [=====] - 0s 156us/sample - loss: 0.5439 -
y1_output_loss: 0.1480 - y2_output_loss: 0.3934 -
y1_output_root_mean_squared_error: 0.3843 - y2_output_root_mean_squared_error:
0.6294 - val_loss: 0.7832 - val_y1_output_loss: 0.1632 - val_y2_output_loss:
0.6064 - val_y1_output_root_mean_squared_error: 0.4066 -
val_y2_output_root_mean_squared_error: 0.7860
Epoch 400/500
614/614 [=====] - 0s 144us/sample - loss: 0.4797 -
y1_output_loss: 0.1248 - y2_output_loss: 0.3518 -
y1_output_root_mean_squared_error: 0.3543 - y2_output_root_mean_squared_error:
0.5951 - val_loss: 0.7275 - val_y1_output_loss: 0.1648 - val_y2_output_loss:
0.5532 - val_y1_output_root_mean_squared_error: 0.4103 -

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val_y2_output_root_mean_squared_error: 0.7478
Epoch 401/500
614/614 [=====] - 0s 139us/sample - loss: 0.6200 -
y1_output_loss: 0.1514 - y2_output_loss: 0.4646 -
y1_output_root_mean_squared_error: 0.3902 - y2_output_root_mean_squared_error:
0.6839 - val_loss: 0.6632 - val_y1_output_loss: 0.1558 - val_y2_output_loss:
0.4985 - val_y1_output_root_mean_squared_error: 0.3970 -
val_y2_output_root_mean_squared_error: 0.7111
Epoch 402/500
614/614 [=====] - 0s 144us/sample - loss: 0.8808 -
y1_output_loss: 0.1942 - y2_output_loss: 0.6823 -
y1_output_root_mean_squared_error: 0.4424 - y2_output_root_mean_squared_error:
0.8277 - val_loss: 0.8319 - val_y1_output_loss: 0.2010 - val_y2_output_loss:
0.6174 - val_y1_output_root_mean_squared_error: 0.4548 -
val_y2_output_root_mean_squared_error: 0.7907
Epoch 403/500
614/614 [=====] - 0s 136us/sample - loss: 0.6151 -
y1_output_loss: 0.1560 - y2_output_loss: 0.4552 -
y1_output_root_mean_squared_error: 0.3964 - y2_output_root_mean_squared_error:
0.6767 - val_loss: 0.8144 - val_y1_output_loss: 0.1848 - val_y2_output_loss:
0.6199 - val_y1_output_root_mean_squared_error: 0.4340 -
val_y2_output_root_mean_squared_error: 0.7912
Epoch 404/500
614/614 [=====] - 0s 133us/sample - loss: 0.5233 -
y1_output_loss: 0.1463 - y2_output_loss: 0.3756 -
y1_output_root_mean_squared_error: 0.3834 - y2_output_root_mean_squared_error:
0.6134 - val_loss: 1.2418 - val_y1_output_loss: 0.2201 - val_y2_output_loss:
1.0047 - val_y1_output_root_mean_squared_error: 0.4686 -
val_y2_output_root_mean_squared_error: 1.0111
Epoch 405/500
614/614 [=====] - 0s 132us/sample - loss: 0.4431 -
y1_output_loss: 0.1408 - y2_output_loss: 0.3029 -
y1_output_root_mean_squared_error: 0.3731 - y2_output_root_mean_squared_error:
0.5513 - val_loss: 1.0793 - val_y1_output_loss: 0.3253 - val_y2_output_loss:
0.7396 - val_y1_output_root_mean_squared_error: 0.5776 -
val_y2_output_root_mean_squared_error: 0.8636
Epoch 406/500
614/614 [=====] - 0s 136us/sample - loss: 0.4818 -
y1_output_loss: 0.1486 - y2_output_loss: 0.3336 -
y1_output_root_mean_squared_error: 0.3870 - y2_output_root_mean_squared_error:
0.5762 - val_loss: 0.9212 - val_y1_output_loss: 0.2362 - val_y2_output_loss:
0.6663 - val_y1_output_root_mean_squared_error: 0.4928 -
val_y2_output_root_mean_squared_error: 0.8236
Epoch 407/500
614/614 [=====] - 0s 134us/sample - loss: 0.4520 -
y1_output_loss: 0.1276 - y2_output_loss: 0.3222 -
y1_output_root_mean_squared_error: 0.3575 - y2_output_root_mean_squared_error:
0.5693 - val_loss: 0.7590 - val_y1_output_loss: 0.1859 - val_y2_output_loss:

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0.5663 - val_y1_output_root_mean_squared_error: 0.4306 -
 val_y2_output_root_mean_squared_error: 0.7573
 Epoch 408/500
 614/614 [=====] - 0s 130us/sample - loss: 0.4700 -
 y1_output_loss: 0.1390 - y2_output_loss: 0.3269 -
 y1_output_root_mean_squared_error: 0.3742 - y2_output_root_mean_squared_error:
 0.5744 - val_loss: 0.6773 - val_y1_output_loss: 0.1749 - val_y2_output_loss:
 0.4850 - val_y1_output_root_mean_squared_error: 0.4195 -
 val_y2_output_root_mean_squared_error: 0.7080
 Epoch 409/500
 614/614 [=====] - 0s 130us/sample - loss: 0.5895 -
 y1_output_loss: 0.1728 - y2_output_loss: 0.4117 -
 y1_output_root_mean_squared_error: 0.4176 - y2_output_root_mean_squared_error:
 0.6443 - val_loss: 0.7445 - val_y1_output_loss: 0.1608 - val_y2_output_loss:
 0.5710 - val_y1_output_root_mean_squared_error: 0.4044 -
 val_y2_output_root_mean_squared_error: 0.7622
 Epoch 410/500
 614/614 [=====] - 0s 130us/sample - loss: 0.5423 -
 y1_output_loss: 0.1601 - y2_output_loss: 0.3802 -
 y1_output_root_mean_squared_error: 0.4001 - y2_output_root_mean_squared_error:
 0.6183 - val_loss: 0.8671 - val_y1_output_loss: 0.1883 - val_y2_output_loss:
 0.6520 - val_y1_output_root_mean_squared_error: 0.4362 -
 val_y2_output_root_mean_squared_error: 0.8227
 Epoch 411/500
 614/614 [=====] - 0s 133us/sample - loss: 0.6074 -
 y1_output_loss: 0.1436 - y2_output_loss: 0.4623 -
 y1_output_root_mean_squared_error: 0.3788 - y2_output_root_mean_squared_error:
 0.6811 - val_loss: 0.8866 - val_y1_output_loss: 0.1967 - val_y2_output_loss:
 0.6815 - val_y1_output_root_mean_squared_error: 0.4475 -
 val_y2_output_root_mean_squared_error: 0.8284
 Epoch 412/500
 614/614 [=====] - 0s 133us/sample - loss: 0.4469 -
 y1_output_loss: 0.1290 - y2_output_loss: 0.3154 -
 y1_output_root_mean_squared_error: 0.3597 - y2_output_root_mean_squared_error:
 0.5635 - val_loss: 0.6939 - val_y1_output_loss: 0.1710 - val_y2_output_loss:
 0.5127 - val_y1_output_root_mean_squared_error: 0.4172 -
 val_y2_output_root_mean_squared_error: 0.7210
 Epoch 413/500
 614/614 [=====] - 0s 135us/sample - loss: 0.6920 -
 y1_output_loss: 0.1710 - y2_output_loss: 0.5183 -
 y1_output_root_mean_squared_error: 0.4150 - y2_output_root_mean_squared_error:
 0.7210 - val_loss: 1.5142 - val_y1_output_loss: 0.4417 - val_y2_output_loss:
 1.0527 - val_y1_output_root_mean_squared_error: 0.6725 -
 val_y2_output_root_mean_squared_error: 1.0305
 Epoch 414/500
 614/614 [=====] - 0s 132us/sample - loss: 0.6923 -
 y1_output_loss: 0.1654 - y2_output_loss: 0.5270 -
 y1_output_root_mean_squared_error: 0.4055 - y2_output_root_mean_squared_error:

0.7266 - val_loss: 1.8053 - val_y1_output_loss: 0.4231 - val_y2_output_loss:
 1.3928 - val_y1_output_root_mean_squared_error: 0.6518 -
 val_y2_output_root_mean_squared_error: 1.1750
 Epoch 415/500
 614/614 [=====] - 0s 134us/sample - loss: 0.4367 -
 y1_output_loss: 0.1271 - y2_output_loss: 0.3080 -
 y1_output_root_mean_squared_error: 0.3574 - y2_output_root_mean_squared_error:
 0.5559 - val_loss: 0.7614 - val_y1_output_loss: 0.1919 - val_y2_output_loss:
 0.5592 - val_y1_output_root_mean_squared_error: 0.4346 -
 val_y2_output_root_mean_squared_error: 0.7566
 Epoch 416/500
 614/614 [=====] - 0s 133us/sample - loss: 0.5034 -
 y1_output_loss: 0.1440 - y2_output_loss: 0.3591 -
 y1_output_root_mean_squared_error: 0.3755 - y2_output_root_mean_squared_error:
 0.6021 - val_loss: 0.8102 - val_y1_output_loss: 0.2565 - val_y2_output_loss:
 0.5321 - val_y1_output_root_mean_squared_error: 0.5127 -
 val_y2_output_root_mean_squared_error: 0.7398
 Epoch 417/500
 614/614 [=====] - 0s 142us/sample - loss: 0.4374 -
 y1_output_loss: 0.1331 - y2_output_loss: 0.3319 -
 y1_output_root_mean_squared_error: 0.3655 - y2_output_root_mean_squared_error:
 0.5512 - val_loss: 4.7640 - val_y1_output_loss: 0.3330 - val_y2_output_loss:
 4.3021 - val_y1_output_root_mean_squared_error: 0.5857 -
 val_y2_output_root_mean_squared_error: 2.1026
 Epoch 418/500
 614/614 [=====] - 0s 149us/sample - loss: 0.6351 -
 y1_output_loss: 0.1572 - y2_output_loss: 0.4736 -
 y1_output_root_mean_squared_error: 0.3971 - y2_output_root_mean_squared_error:
 0.6910 - val_loss: 0.6150 - val_y1_output_loss: 0.1677 - val_y2_output_loss:
 0.4357 - val_y1_output_root_mean_squared_error: 0.4132 -
 val_y2_output_root_mean_squared_error: 0.6665
 Epoch 419/500
 614/614 [=====] - 0s 148us/sample - loss: 1.0313 -
 y1_output_loss: 0.2852 - y2_output_loss: 0.7504 -
 y1_output_root_mean_squared_error: 0.5237 - y2_output_root_mean_squared_error:
 0.8701 - val_loss: 1.3439 - val_y1_output_loss: 0.7729 - val_y2_output_loss:
 0.6409 - val_y1_output_root_mean_squared_error: 0.8388 -
 val_y2_output_root_mean_squared_error: 0.8002
 Epoch 420/500
 614/614 [=====] - 0s 149us/sample - loss: 0.5454 -
 y1_output_loss: 0.1516 - y2_output_loss: 0.3953 -
 y1_output_root_mean_squared_error: 0.3845 - y2_output_root_mean_squared_error:
 0.6305 - val_loss: 0.9572 - val_y1_output_loss: 0.3057 - val_y2_output_loss:
 0.6229 - val_y1_output_root_mean_squared_error: 0.5580 -
 val_y2_output_root_mean_squared_error: 0.8036
 Epoch 421/500
 614/614 [=====] - 0s 141us/sample - loss: 0.4129 -
 y1_output_loss: 0.1341 - y2_output_loss: 0.2773 -

y1_output_root_mean_squared_error: 0.3659 - y2_output_root_mean_squared_error:
 0.5283 - val_loss: 0.6675 - val_y1_output_loss: 0.1708 - val_y2_output_loss:
 0.4935 - val_y1_output_root_mean_squared_error: 0.4137 -
 val_y2_output_root_mean_squared_error: 0.7045
 Epoch 422/500
 614/614 [=====] - 0s 136us/sample - loss: 0.5351 -
 y1_output_loss: 0.1492 - y2_output_loss: 0.3830 -
 y1_output_root_mean_squared_error: 0.3872 - y2_output_root_mean_squared_error:
 0.6207 - val_loss: 0.7905 - val_y1_output_loss: 0.1653 - val_y2_output_loss:
 0.6145 - val_y1_output_root_mean_squared_error: 0.4117 -
 val_y2_output_root_mean_squared_error: 0.7880
 Epoch 423/500
 614/614 [=====] - 0s 139us/sample - loss: 0.4493 -
 y1_output_loss: 0.1402 - y2_output_loss: 0.3181 -
 y1_output_root_mean_squared_error: 0.3722 - y2_output_root_mean_squared_error:
 0.5575 - val_loss: 1.8973 - val_y1_output_loss: 0.4950 - val_y2_output_loss:
 1.3443 - val_y1_output_root_mean_squared_error: 0.7097 -
 val_y2_output_root_mean_squared_error: 1.1805
 Epoch 424/500
 614/614 [=====] - 0s 134us/sample - loss: 0.5960 -
 y1_output_loss: 0.1770 - y2_output_loss: 0.4160 -
 y1_output_root_mean_squared_error: 0.4218 - y2_output_root_mean_squared_error:
 0.6466 - val_loss: 0.6409 - val_y1_output_loss: 0.1680 - val_y2_output_loss:
 0.4695 - val_y1_output_root_mean_squared_error: 0.4092 -
 val_y2_output_root_mean_squared_error: 0.6881
 Epoch 425/500
 614/614 [=====] - 0s 135us/sample - loss: 0.3992 -
 y1_output_loss: 0.1344 - y2_output_loss: 0.2693 -
 y1_output_root_mean_squared_error: 0.3586 - y2_output_root_mean_squared_error:
 0.5202 - val_loss: 0.8184 - val_y1_output_loss: 0.3310 - val_y2_output_loss:
 0.4699 - val_y1_output_root_mean_squared_error: 0.5760 -
 val_y2_output_root_mean_squared_error: 0.6976
 Epoch 426/500
 614/614 [=====] - 0s 130us/sample - loss: 0.4802 -
 y1_output_loss: 0.1354 - y2_output_loss: 0.3417 -
 y1_output_root_mean_squared_error: 0.3685 - y2_output_root_mean_squared_error:
 0.5869 - val_loss: 0.9744 - val_y1_output_loss: 0.2894 - val_y2_output_loss:
 0.6623 - val_y1_output_root_mean_squared_error: 0.5379 -
 val_y2_output_root_mean_squared_error: 0.8277
 Epoch 427/500
 614/614 [=====] - 0s 136us/sample - loss: 0.4411 -
 y1_output_loss: 0.1116 - y2_output_loss: 0.3310 -
 y1_output_root_mean_squared_error: 0.3333 - y2_output_root_mean_squared_error:
 0.5745 - val_loss: 1.3640 - val_y1_output_loss: 0.2080 - val_y2_output_loss:
 1.1423 - val_y1_output_root_mean_squared_error: 0.4627 -
 val_y2_output_root_mean_squared_error: 1.0723
 Epoch 428/500
 614/614 [=====] - 0s 138us/sample - loss: 0.4444 -

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y1_output_loss: 0.1302 - y2_output_loss: 0.3132 -
y1_output_root_mean_squared_error: 0.3615 - y2_output_root_mean_squared_error:
0.5601 - val_loss: 0.8814 - val_y1_output_loss: 0.2039 - val_y2_output_loss:
0.6639 - val_y1_output_root_mean_squared_error: 0.4511 -
val_y2_output_root_mean_squared_error: 0.8233
Epoch 429/500
614/614 [=====] - 0s 138us/sample - loss: 0.7565 -
y1_output_loss: 0.1461 - y2_output_loss: 0.6062 -
y1_output_root_mean_squared_error: 0.3820 - y2_output_root_mean_squared_error:
0.7814 - val_loss: 0.8132 - val_y1_output_loss: 0.3256 - val_y2_output_loss:
0.4874 - val_y1_output_root_mean_squared_error: 0.5635 -
val_y2_output_root_mean_squared_error: 0.7041
Epoch 430/500
614/614 [=====] - 0s 133us/sample - loss: 0.4248 -
y1_output_loss: 0.1334 - y2_output_loss: 0.2883 -
y1_output_root_mean_squared_error: 0.3667 - y2_output_root_mean_squared_error:
0.5388 - val_loss: 0.7694 - val_y1_output_loss: 0.1576 - val_y2_output_loss:
0.5898 - val_y1_output_root_mean_squared_error: 0.3976 -
val_y2_output_root_mean_squared_error: 0.7819
Epoch 431/500
614/614 [=====] - 0s 131us/sample - loss: 0.4176 -
y1_output_loss: 0.1300 - y2_output_loss: 0.2959 -
y1_output_root_mean_squared_error: 0.3589 - y2_output_root_mean_squared_error:
0.5374 - val_loss: 0.9480 - val_y1_output_loss: 0.3395 - val_y2_output_loss:
0.5826 - val_y1_output_root_mean_squared_error: 0.5933 -
val_y2_output_root_mean_squared_error: 0.7720
Epoch 432/500
614/614 [=====] - 0s 131us/sample - loss: 0.4172 -
y1_output_loss: 0.1234 - y2_output_loss: 0.2929 -
y1_output_root_mean_squared_error: 0.3505 - y2_output_root_mean_squared_error:
0.5425 - val_loss: 0.8689 - val_y1_output_loss: 0.2688 - val_y2_output_loss:
0.5912 - val_y1_output_root_mean_squared_error: 0.5250 -
val_y2_output_root_mean_squared_error: 0.7703
Epoch 433/500
614/614 [=====] - 0s 131us/sample - loss: 0.4117 -
y1_output_loss: 0.1286 - y2_output_loss: 0.2795 -
y1_output_root_mean_squared_error: 0.3603 - y2_output_root_mean_squared_error:
0.5310 - val_loss: 0.6876 - val_y1_output_loss: 0.1506 - val_y2_output_loss:
0.5262 - val_y1_output_root_mean_squared_error: 0.3892 -
val_y2_output_root_mean_squared_error: 0.7322
Epoch 434/500
614/614 [=====] - 0s 140us/sample - loss: 0.4402 -
y1_output_loss: 0.1325 - y2_output_loss: 0.3052 -
y1_output_root_mean_squared_error: 0.3639 - y2_output_root_mean_squared_error:
0.5548 - val_loss: 0.6873 - val_y1_output_loss: 0.1784 - val_y2_output_loss:
0.4924 - val_y1_output_root_mean_squared_error: 0.4252 -
val_y2_output_root_mean_squared_error: 0.7117
Epoch 435/500

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614/614 [=====] - 0s 135us/sample - loss: 0.3762 -
y1_output_loss: 0.1136 - y2_output_loss: 0.2639 -
y1_output_root_mean_squared_error: 0.3373 - y2_output_root_mean_squared_error:
0.5122 - val_loss: 0.5944 - val_y1_output_loss: 0.1347 - val_y2_output_loss:
0.4425 - val_y1_output_root_mean_squared_error: 0.3692 -
val_y2_output_root_mean_squared_error: 0.6768
Epoch 436/500
614/614 [=====] - 0s 138us/sample - loss: 0.6183 -
y1_output_loss: 0.1599 - y2_output_loss: 0.4548 -
y1_output_root_mean_squared_error: 0.4001 - y2_output_root_mean_squared_error:
0.6769 - val_loss: 0.6714 - val_y1_output_loss: 0.1924 - val_y2_output_loss:
0.4655 - val_y1_output_root_mean_squared_error: 0.4379 -
val_y2_output_root_mean_squared_error: 0.6925
Epoch 437/500
614/614 [=====] - 0s 142us/sample - loss: 0.4536 -
y1_output_loss: 0.1280 - y2_output_loss: 0.3225 -
y1_output_root_mean_squared_error: 0.3593 - y2_output_root_mean_squared_error:
0.5696 - val_loss: 0.7098 - val_y1_output_loss: 0.1611 - val_y2_output_loss:
0.5383 - val_y1_output_root_mean_squared_error: 0.4059 -
val_y2_output_root_mean_squared_error: 0.7383
Epoch 438/500
614/614 [=====] - 0s 137us/sample - loss: 0.5449 -
y1_output_loss: 0.1490 - y2_output_loss: 0.3948 -
y1_output_root_mean_squared_error: 0.3860 - y2_output_root_mean_squared_error:
0.6292 - val_loss: 0.9267 - val_y1_output_loss: 0.1969 - val_y2_output_loss:
0.7329 - val_y1_output_root_mean_squared_error: 0.4515 -
val_y2_output_root_mean_squared_error: 0.8502
Epoch 439/500
614/614 [=====] - 0s 139us/sample - loss: 0.5453 -
y1_output_loss: 0.1528 - y2_output_loss: 0.3893 -
y1_output_root_mean_squared_error: 0.3926 - y2_output_root_mean_squared_error:
0.6254 - val_loss: 0.6820 - val_y1_output_loss: 0.1785 - val_y2_output_loss:
0.4837 - val_y1_output_root_mean_squared_error: 0.4251 -
val_y2_output_root_mean_squared_error: 0.7080
Epoch 440/500
614/614 [=====] - 0s 135us/sample - loss: 0.3807 -
y1_output_loss: 0.1182 - y2_output_loss: 0.2623 -
y1_output_root_mean_squared_error: 0.3441 - y2_output_root_mean_squared_error:
0.5121 - val_loss: 0.8544 - val_y1_output_loss: 0.1577 - val_y2_output_loss:
0.6775 - val_y1_output_root_mean_squared_error: 0.4005 -
val_y2_output_root_mean_squared_error: 0.8330
Epoch 441/500
614/614 [=====] - 0s 131us/sample - loss: 0.5960 -
y1_output_loss: 0.1490 - y2_output_loss: 0.4480 -
y1_output_root_mean_squared_error: 0.3869 - y2_output_root_mean_squared_error:
0.6681 - val_loss: 1.1308 - val_y1_output_loss: 0.3205 - val_y2_output_loss:
0.7863 - val_y1_output_root_mean_squared_error: 0.5765 -
val_y2_output_root_mean_squared_error: 0.8936

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Epoch 442/500
614/614 [=====] - 0s 137us/sample - loss: 0.3812 -
y1_output_loss: 0.1212 - y2_output_loss: 0.2607 -
y1_output_root_mean_squared_error: 0.3465 - y2_output_root_mean_squared_error:
0.5110 - val_loss: 0.7438 - val_y1_output_loss: 0.1326 - val_y2_output_loss:
0.5923 - val_y1_output_root_mean_squared_error: 0.3671 -
val_y2_output_root_mean_squared_error: 0.7804
Epoch 443/500
614/614 [=====] - 0s 134us/sample - loss: 0.3404 -
y1_output_loss: 0.1222 - y2_output_loss: 0.2174 -
y1_output_root_mean_squared_error: 0.3500 - y2_output_root_mean_squared_error:
0.4668 - val_loss: 0.6546 - val_y1_output_loss: 0.1561 - val_y2_output_loss:
0.4915 - val_y1_output_root_mean_squared_error: 0.3999 -
val_y2_output_root_mean_squared_error: 0.7033
Epoch 444/500
614/614 [=====] - 0s 138us/sample - loss: 0.4055 -
y1_output_loss: 0.1258 - y2_output_loss: 0.2823 -
y1_output_root_mean_squared_error: 0.3528 - y2_output_root_mean_squared_error:
0.5301 - val_loss: 1.1148 - val_y1_output_loss: 0.1825 - val_y2_output_loss:
0.8976 - val_y1_output_root_mean_squared_error: 0.4277 -
val_y2_output_root_mean_squared_error: 0.9654
Epoch 445/500
614/614 [=====] - 0s 135us/sample - loss: 0.4906 -
y1_output_loss: 0.1415 - y2_output_loss: 0.3536 -
y1_output_root_mean_squared_error: 0.3656 - y2_output_root_mean_squared_error:
0.5974 - val_loss: 1.0228 - val_y1_output_loss: 0.5219 - val_y2_output_loss:
0.5391 - val_y1_output_root_mean_squared_error: 0.6931 -
val_y2_output_root_mean_squared_error: 0.7364
Epoch 446/500
614/614 [=====] - 0s 133us/sample - loss: 0.4887 -
y1_output_loss: 0.1505 - y2_output_loss: 0.3398 -
y1_output_root_mean_squared_error: 0.3891 - y2_output_root_mean_squared_error:
0.5808 - val_loss: 1.1618 - val_y1_output_loss: 0.1580 - val_y2_output_loss:
0.9733 - val_y1_output_root_mean_squared_error: 0.4014 -
val_y2_output_root_mean_squared_error: 1.0003
Epoch 447/500
614/614 [=====] - 0s 135us/sample - loss: 0.3844 -
y1_output_loss: 0.1157 - y2_output_loss: 0.2679 -
y1_output_root_mean_squared_error: 0.3405 - y2_output_root_mean_squared_error:
0.5182 - val_loss: 0.6251 - val_y1_output_loss: 0.1480 - val_y2_output_loss:
0.4628 - val_y1_output_root_mean_squared_error: 0.3888 -
val_y2_output_root_mean_squared_error: 0.6884
Epoch 448/500
614/614 [=====] - 0s 137us/sample - loss: 0.4386 -
y1_output_loss: 0.1254 - y2_output_loss: 0.3136 -
y1_output_root_mean_squared_error: 0.3555 - y2_output_root_mean_squared_error:
0.5587 - val_loss: 0.9414 - val_y1_output_loss: 0.1930 - val_y2_output_loss:
0.7189 - val_y1_output_root_mean_squared_error: 0.4432 -

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val_y2_output_root_mean_squared_error: 0.8631
Epoch 449/500
614/614 [=====] - 0s 136us/sample - loss: 0.3963 -
y1_output_loss: 0.1130 - y2_output_loss: 0.2825 -
y1_output_root_mean_squared_error: 0.3367 - y2_output_root_mean_squared_error:
0.5319 - val_loss: 0.8503 - val_y1_output_loss: 0.1535 - val_y2_output_loss:
0.6791 - val_y1_output_root_mean_squared_error: 0.3952 -
val_y2_output_root_mean_squared_error: 0.8331
Epoch 450/500
614/614 [=====] - 0s 134us/sample - loss: 0.4588 -
y1_output_loss: 0.1415 - y2_output_loss: 0.3184 -
y1_output_root_mean_squared_error: 0.3762 - y2_output_root_mean_squared_error:
0.5633 - val_loss: 1.1053 - val_y1_output_loss: 0.3029 - val_y2_output_loss:
0.7966 - val_y1_output_root_mean_squared_error: 0.5585 -
val_y2_output_root_mean_squared_error: 0.8907
Epoch 451/500
614/614 [=====] - 0s 134us/sample - loss: 0.4374 -
y1_output_loss: 0.1176 - y2_output_loss: 0.3186 -
y1_output_root_mean_squared_error: 0.3443 - y2_output_root_mean_squared_error:
0.5646 - val_loss: 0.6605 - val_y1_output_loss: 0.1699 - val_y2_output_loss:
0.4737 - val_y1_output_root_mean_squared_error: 0.4131 -
val_y2_output_root_mean_squared_error: 0.6999
Epoch 452/500
614/614 [=====] - 0s 129us/sample - loss: 0.5962 -
y1_output_loss: 0.1662 - y2_output_loss: 0.4257 -
y1_output_root_mean_squared_error: 0.4089 - y2_output_root_mean_squared_error:
0.6549 - val_loss: 0.6270 - val_y1_output_loss: 0.1775 - val_y2_output_loss:
0.4381 - val_y1_output_root_mean_squared_error: 0.4240 -
val_y2_output_root_mean_squared_error: 0.6687
Epoch 453/500
614/614 [=====] - 0s 129us/sample - loss: 0.5096 -
y1_output_loss: 0.1301 - y2_output_loss: 0.3822 -
y1_output_root_mean_squared_error: 0.3589 - y2_output_root_mean_squared_error:
0.6171 - val_loss: 0.6904 - val_y1_output_loss: 0.1973 - val_y2_output_loss:
0.4825 - val_y1_output_root_mean_squared_error: 0.4467 -
val_y2_output_root_mean_squared_error: 0.7006
Epoch 454/500
614/614 [=====] - 0s 133us/sample - loss: 0.3998 -
y1_output_loss: 0.1286 - y2_output_loss: 0.2687 -
y1_output_root_mean_squared_error: 0.3594 - y2_output_root_mean_squared_error:
0.5202 - val_loss: 0.5858 - val_y1_output_loss: 0.1509 - val_y2_output_loss:
0.4207 - val_y1_output_root_mean_squared_error: 0.3915 -
val_y2_output_root_mean_squared_error: 0.6577
Epoch 455/500
614/614 [=====] - 0s 137us/sample - loss: 0.5027 -
y1_output_loss: 0.1531 - y2_output_loss: 0.3456 -
y1_output_root_mean_squared_error: 0.3924 - y2_output_root_mean_squared_error:
0.5905 - val_loss: 0.6065 - val_y1_output_loss: 0.1545 - val_y2_output_loss:

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0.4458 - val_y1_output_root_mean_squared_error: 0.3974 -
val_y2_output_root_mean_squared_error: 0.6697
Epoch 456/500
614/614 [=====] - 0s 140us/sample - loss: 0.4091 -
y1_output_loss: 0.1272 - y2_output_loss: 0.2815 -
y1_output_root_mean_squared_error: 0.3556 - y2_output_root_mean_squared_error:
0.5317 - val_loss: 0.8391 - val_y1_output_loss: 0.1577 - val_y2_output_loss:
0.6716 - val_y1_output_root_mean_squared_error: 0.3981 -
val_y2_output_root_mean_squared_error: 0.8250
Epoch 457/500
614/614 [=====] - 0s 136us/sample - loss: 0.5703 -
y1_output_loss: 0.1450 - y2_output_loss: 0.4219 -
y1_output_root_mean_squared_error: 0.3817 - y2_output_root_mean_squared_error:
0.6516 - val_loss: 0.6886 - val_y1_output_loss: 0.2026 - val_y2_output_loss:
0.4796 - val_y1_output_root_mean_squared_error: 0.4509 -
val_y2_output_root_mean_squared_error: 0.6966
Epoch 458/500
614/614 [=====] - 0s 134us/sample - loss: 0.4465 -
y1_output_loss: 0.1333 - y2_output_loss: 0.3110 -
y1_output_root_mean_squared_error: 0.3641 - y2_output_root_mean_squared_error:
0.5603 - val_loss: 0.6556 - val_y1_output_loss: 0.1931 - val_y2_output_loss:
0.4503 - val_y1_output_root_mean_squared_error: 0.4453 -
val_y2_output_root_mean_squared_error: 0.6762
Epoch 459/500
614/614 [=====] - 0s 131us/sample - loss: 0.3844 -
y1_output_loss: 0.1202 - y2_output_loss: 0.2649 -
y1_output_root_mean_squared_error: 0.3460 - y2_output_root_mean_squared_error:
0.5144 - val_loss: 0.7681 - val_y1_output_loss: 0.1728 - val_y2_output_loss:
0.5788 - val_y1_output_root_mean_squared_error: 0.4144 -
val_y2_output_root_mean_squared_error: 0.7723
Epoch 460/500
614/614 [=====] - 0s 132us/sample - loss: 0.4189 -
y1_output_loss: 0.1290 - y2_output_loss: 0.2960 -
y1_output_root_mean_squared_error: 0.3599 - y2_output_root_mean_squared_error:
0.5379 - val_loss: 1.5966 - val_y1_output_loss: 0.1730 - val_y2_output_loss:
1.3797 - val_y1_output_root_mean_squared_error: 0.4190 -
val_y2_output_root_mean_squared_error: 1.1921
Epoch 461/500
614/614 [=====] - 0s 135us/sample - loss: 0.4669 -
y1_output_loss: 0.1397 - y2_output_loss: 0.3282 -
y1_output_root_mean_squared_error: 0.3718 - y2_output_root_mean_squared_error:
0.5733 - val_loss: 1.5260 - val_y1_output_loss: 0.4898 - val_y2_output_loss:
0.9985 - val_y1_output_root_mean_squared_error: 0.7112 -
val_y2_output_root_mean_squared_error: 1.0101
Epoch 462/500
614/614 [=====] - 0s 138us/sample - loss: 0.5318 -
y1_output_loss: 0.1461 - y2_output_loss: 0.4054 -
y1_output_root_mean_squared_error: 0.3802 - y2_output_root_mean_squared_error:

0.6223 - val_loss: 4.8629 - val_y1_output_loss: 0.8906 - val_y2_output_loss:
 3.8066 - val_y1_output_root_mean_squared_error: 0.9576 -
 val_y2_output_root_mean_squared_error: 1.9864
 Epoch 463/500
 614/614 [=====] - 0s 131us/sample - loss: 0.5174 -
 y1_output_loss: 0.1499 - y2_output_loss: 0.3720 -
 y1_output_root_mean_squared_error: 0.3849 - y2_output_root_mean_squared_error:
 0.6077 - val_loss: 3.4465 - val_y1_output_loss: 0.7297 - val_y2_output_loss:
 2.6249 - val_y1_output_root_mean_squared_error: 0.8693 -
 val_y2_output_root_mean_squared_error: 1.6403
 Epoch 464/500
 614/614 [=====] - 0s 130us/sample - loss: 0.6543 -
 y1_output_loss: 0.1619 - y2_output_loss: 0.4888 -
 y1_output_root_mean_squared_error: 0.4032 - y2_output_root_mean_squared_error:
 0.7012 - val_loss: 0.6323 - val_y1_output_loss: 0.1626 - val_y2_output_loss:
 0.4565 - val_y1_output_root_mean_squared_error: 0.4052 -
 val_y2_output_root_mean_squared_error: 0.6842
 Epoch 465/500
 614/614 [=====] - 0s 134us/sample - loss: 0.3702 -
 y1_output_loss: 0.1152 - y2_output_loss: 0.2519 -
 y1_output_root_mean_squared_error: 0.3405 - y2_output_root_mean_squared_error:
 0.5043 - val_loss: 0.5857 - val_y1_output_loss: 0.1626 - val_y2_output_loss:
 0.4082 - val_y1_output_root_mean_squared_error: 0.4083 -
 val_y2_output_root_mean_squared_error: 0.6473
 Epoch 466/500
 614/614 [=====] - 0s 131us/sample - loss: 1.7273 -
 y1_output_loss: 0.3779 - y2_output_loss: 1.3343 -
 y1_output_root_mean_squared_error: 0.6175 - y2_output_root_mean_squared_error:
 1.1602 - val_loss: 0.9557 - val_y1_output_loss: 0.2819 - val_y2_output_loss:
 0.6509 - val_y1_output_root_mean_squared_error: 0.5342 -
 val_y2_output_root_mean_squared_error: 0.8187
 Epoch 467/500
 614/614 [=====] - 0s 132us/sample - loss: 1.3505 -
 y1_output_loss: 0.3383 - y2_output_loss: 1.0023 -
 y1_output_root_mean_squared_error: 0.5824 - y2_output_root_mean_squared_error:
 1.0056 - val_loss: 1.0362 - val_y1_output_loss: 0.2666 - val_y2_output_loss:
 0.7400 - val_y1_output_root_mean_squared_error: 0.5253 -
 val_y2_output_root_mean_squared_error: 0.8719
 Epoch 468/500
 614/614 [=====] - 0s 135us/sample - loss: 0.4562 -
 y1_output_loss: 0.1295 - y2_output_loss: 0.3259 -
 y1_output_root_mean_squared_error: 0.3593 - y2_output_root_mean_squared_error:
 0.5719 - val_loss: 0.7733 - val_y1_output_loss: 0.1704 - val_y2_output_loss:
 0.5830 - val_y1_output_root_mean_squared_error: 0.4160 -
 val_y2_output_root_mean_squared_error: 0.7748
 Epoch 469/500
 614/614 [=====] - 0s 137us/sample - loss: 0.5057 -
 y1_output_loss: 0.1428 - y2_output_loss: 0.3620 -

y1_output_root_mean_squared_error: 0.3775 - y2_output_root_mean_squared_error:
 0.6026 - val_loss: 0.7474 - val_y1_output_loss: 0.2049 - val_y2_output_loss:
 0.5290 - val_y1_output_root_mean_squared_error: 0.4583 -
 val_y2_output_root_mean_squared_error: 0.7331
 Epoch 470/500
 614/614 [=====] - 0s 130us/sample - loss: 0.4968 -
 y1_output_loss: 0.1354 - y2_output_loss: 0.3617 -
 y1_output_root_mean_squared_error: 0.3678 - y2_output_root_mean_squared_error:
 0.6013 - val_loss: 0.8412 - val_y1_output_loss: 0.2392 - val_y2_output_loss:
 0.5816 - val_y1_output_root_mean_squared_error: 0.4946 -
 val_y2_output_root_mean_squared_error: 0.7724
 Epoch 471/500
 614/614 [=====] - 0s 130us/sample - loss: 0.3705 -
 y1_output_loss: 0.1145 - y2_output_loss: 0.2545 -
 y1_output_root_mean_squared_error: 0.3398 - y2_output_root_mean_squared_error:
 0.5050 - val_loss: 0.5749 - val_y1_output_loss: 0.1437 - val_y2_output_loss:
 0.4210 - val_y1_output_root_mean_squared_error: 0.3808 -
 val_y2_output_root_mean_squared_error: 0.6556
 Epoch 472/500
 614/614 [=====] - 0s 131us/sample - loss: 0.5484 -
 y1_output_loss: 0.1495 - y2_output_loss: 0.4086 -
 y1_output_root_mean_squared_error: 0.3882 - y2_output_root_mean_squared_error:
 0.6306 - val_loss: 2.5335 - val_y1_output_loss: 0.2408 - val_y2_output_loss:
 2.2218 - val_y1_output_root_mean_squared_error: 0.4935 -
 val_y2_output_root_mean_squared_error: 1.5133
 Epoch 473/500
 614/614 [=====] - 0s 130us/sample - loss: 0.4143 -
 y1_output_loss: 0.1182 - y2_output_loss: 0.2931 -
 y1_output_root_mean_squared_error: 0.3452 - y2_output_root_mean_squared_error:
 0.5433 - val_loss: 0.6653 - val_y1_output_loss: 0.1690 - val_y2_output_loss:
 0.4829 - val_y1_output_root_mean_squared_error: 0.4160 -
 val_y2_output_root_mean_squared_error: 0.7016
 Epoch 474/500
 614/614 [=====] - 0s 132us/sample - loss: 0.3674 -
 y1_output_loss: 0.1100 - y2_output_loss: 0.2553 -
 y1_output_root_mean_squared_error: 0.3315 - y2_output_root_mean_squared_error:
 0.5075 - val_loss: 1.0916 - val_y1_output_loss: 0.2592 - val_y2_output_loss:
 0.8011 - val_y1_output_root_mean_squared_error: 0.5126 -
 val_y2_output_root_mean_squared_error: 0.9104
 Epoch 475/500
 614/614 [=====] - 0s 139us/sample - loss: 0.3995 -
 y1_output_loss: 0.1209 - y2_output_loss: 0.2765 -
 y1_output_root_mean_squared_error: 0.3475 - y2_output_root_mean_squared_error:
 0.5280 - val_loss: 0.6480 - val_y1_output_loss: 0.1799 - val_y2_output_loss:
 0.4609 - val_y1_output_root_mean_squared_error: 0.4255 -
 val_y2_output_root_mean_squared_error: 0.6833
 Epoch 476/500
 614/614 [=====] - 0s 130us/sample - loss: 0.3598 -

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y1_output_loss: 0.1129 - y2_output_loss: 0.2474 -
y1_output_root_mean_squared_error: 0.3366 - y2_output_root_mean_squared_error:
0.4965 - val_loss: 1.3641 - val_y1_output_loss: 0.2281 - val_y2_output_loss:
1.1088 - val_y1_output_root_mean_squared_error: 0.4855 -
val_y2_output_root_mean_squared_error: 1.0622
Epoch 477/500
614/614 [=====] - 0s 135us/sample - loss: 0.3751 -
y1_output_loss: 0.1238 - y2_output_loss: 0.2489 -
y1_output_root_mean_squared_error: 0.3529 - y2_output_root_mean_squared_error:
0.5006 - val_loss: 0.6313 - val_y1_output_loss: 0.1634 - val_y2_output_loss:
0.4499 - val_y1_output_root_mean_squared_error: 0.4072 -
val_y2_output_root_mean_squared_error: 0.6823
Epoch 478/500
614/614 [=====] - 0s 132us/sample - loss: 0.5062 -
y1_output_loss: 0.1285 - y2_output_loss: 0.3742 -
y1_output_root_mean_squared_error: 0.3592 - y2_output_root_mean_squared_error:
0.6141 - val_loss: 0.6341 - val_y1_output_loss: 0.1753 - val_y2_output_loss:
0.4546 - val_y1_output_root_mean_squared_error: 0.4131 -
val_y2_output_root_mean_squared_error: 0.6808
Epoch 479/500
614/614 [=====] - 0s 136us/sample - loss: 0.3445 -
y1_output_loss: 0.1209 - y2_output_loss: 0.2218 -
y1_output_root_mean_squared_error: 0.3480 - y2_output_root_mean_squared_error:
0.4726 - val_loss: 0.6647 - val_y1_output_loss: 0.2199 - val_y2_output_loss:
0.4327 - val_y1_output_root_mean_squared_error: 0.4728 -
val_y2_output_root_mean_squared_error: 0.6642
Epoch 480/500
614/614 [=====] - 0s 136us/sample - loss: 0.5173 -
y1_output_loss: 0.1540 - y2_output_loss: 0.3603 -
y1_output_root_mean_squared_error: 0.3935 - y2_output_root_mean_squared_error:
0.6020 - val_loss: 0.6280 - val_y1_output_loss: 0.1505 - val_y2_output_loss:
0.4665 - val_y1_output_root_mean_squared_error: 0.3881 -
val_y2_output_root_mean_squared_error: 0.6909
Epoch 481/500
614/614 [=====] - 0s 135us/sample - loss: 0.4488 -
y1_output_loss: 0.1326 - y2_output_loss: 0.3190 -
y1_output_root_mean_squared_error: 0.3641 - y2_output_root_mean_squared_error:
0.5624 - val_loss: 1.2795 - val_y1_output_loss: 0.2917 - val_y2_output_loss:
0.9722 - val_y1_output_root_mean_squared_error: 0.5326 -
val_y2_output_root_mean_squared_error: 0.9979
Epoch 482/500
614/614 [=====] - 0s 130us/sample - loss: 0.4064 -
y1_output_loss: 0.1268 - y2_output_loss: 0.2778 -
y1_output_root_mean_squared_error: 0.3563 - y2_output_root_mean_squared_error:
0.5286 - val_loss: 0.7139 - val_y1_output_loss: 0.2071 - val_y2_output_loss:
0.4887 - val_y1_output_root_mean_squared_error: 0.4568 -
val_y2_output_root_mean_squared_error: 0.7108
Epoch 483/500

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614/614 [=====] - 0s 134us/sample - loss: 0.4321 -
y1_output_loss: 0.1272 - y2_output_loss: 0.3041 -
y1_output_root_mean_squared_error: 0.3577 - y2_output_root_mean_squared_error:
0.5515 - val_loss: 0.6912 - val_y1_output_loss: 0.1769 - val_y2_output_loss:
0.5011 - val_y1_output_root_mean_squared_error: 0.4234 -
val_y2_output_root_mean_squared_error: 0.7155
Epoch 484/500
614/614 [=====] - 0s 135us/sample - loss: 0.5149 -
y1_output_loss: 0.1513 - y2_output_loss: 0.3594 -
y1_output_root_mean_squared_error: 0.3903 - y2_output_root_mean_squared_error:
0.6021 - val_loss: 0.7133 - val_y1_output_loss: 0.1605 - val_y2_output_loss:
0.5361 - val_y1_output_root_mean_squared_error: 0.4019 -
val_y2_output_root_mean_squared_error: 0.7428
Epoch 485/500
614/614 [=====] - 0s 134us/sample - loss: 0.3640 -
y1_output_loss: 0.1181 - y2_output_loss: 0.2601 -
y1_output_root_mean_squared_error: 0.3418 - y2_output_root_mean_squared_error:
0.4972 - val_loss: 3.3211 - val_y1_output_loss: 0.3438 - val_y2_output_loss:
2.8789 - val_y1_output_root_mean_squared_error: 0.5912 -
val_y2_output_root_mean_squared_error: 1.7238
Epoch 486/500
614/614 [=====] - 0s 136us/sample - loss: 0.3742 -
y1_output_loss: 0.1267 - y2_output_loss: 0.2458 -
y1_output_root_mean_squared_error: 0.3574 - y2_output_root_mean_squared_error:
0.4964 - val_loss: 0.7539 - val_y1_output_loss: 0.1961 - val_y2_output_loss:
0.5516 - val_y1_output_root_mean_squared_error: 0.4439 -
val_y2_output_root_mean_squared_error: 0.7462
Epoch 487/500
614/614 [=====] - 0s 133us/sample - loss: 0.3980 -
y1_output_loss: 0.1235 - y2_output_loss: 0.2754 -
y1_output_root_mean_squared_error: 0.3499 - y2_output_root_mean_squared_error:
0.5250 - val_loss: 1.1373 - val_y1_output_loss: 0.3709 - val_y2_output_loss:
0.7496 - val_y1_output_root_mean_squared_error: 0.6047 -
val_y2_output_root_mean_squared_error: 0.8784
Epoch 488/500
614/614 [=====] - 0s 133us/sample - loss: 0.4290 -
y1_output_loss: 0.1260 - y2_output_loss: 0.2993 -
y1_output_root_mean_squared_error: 0.3562 - y2_output_root_mean_squared_error:
0.5496 - val_loss: 0.7678 - val_y1_output_loss: 0.1605 - val_y2_output_loss:
0.5867 - val_y1_output_root_mean_squared_error: 0.4065 -
val_y2_output_root_mean_squared_error: 0.7763
Epoch 489/500
614/614 [=====] - 0s 130us/sample - loss: 0.5180 -
y1_output_loss: 0.1337 - y2_output_loss: 0.3814 -
y1_output_root_mean_squared_error: 0.3659 - y2_output_root_mean_squared_error:
0.6198 - val_loss: 0.6371 - val_y1_output_loss: 0.1796 - val_y2_output_loss:
0.4506 - val_y1_output_root_mean_squared_error: 0.4299 -
val_y2_output_root_mean_squared_error: 0.6725

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Epoch 490/500
614/614 [=====] - 0s 132us/sample - loss: 0.3632 -
y1_output_loss: 0.1155 - y2_output_loss: 0.2491 -
y1_output_root_mean_squared_error: 0.3414 - y2_output_root_mean_squared_error:
0.4967 - val_loss: 0.5865 - val_y1_output_loss: 0.1603 - val_y2_output_loss:
0.4147 - val_y1_output_root_mean_squared_error: 0.4044 -
val_y2_output_root_mean_squared_error: 0.6504
Epoch 491/500
614/614 [=====] - 0s 131us/sample - loss: 0.5013 -
y1_output_loss: 0.1349 - y2_output_loss: 0.3642 -
y1_output_root_mean_squared_error: 0.3680 - y2_output_root_mean_squared_error:
0.6049 - val_loss: 0.9076 - val_y1_output_loss: 0.1922 - val_y2_output_loss:
0.6982 - val_y1_output_root_mean_squared_error: 0.4389 -
val_y2_output_root_mean_squared_error: 0.8455
Epoch 492/500
614/614 [=====] - 0s 136us/sample - loss: 0.5698 -
y1_output_loss: 0.1504 - y2_output_loss: 0.4149 -
y1_output_root_mean_squared_error: 0.3889 - y2_output_root_mean_squared_error:
0.6470 - val_loss: 1.4150 - val_y1_output_loss: 0.3869 - val_y2_output_loss:
1.0016 - val_y1_output_root_mean_squared_error: 0.6167 -
val_y2_output_root_mean_squared_error: 1.0172
Epoch 493/500
614/614 [=====] - 0s 135us/sample - loss: 0.4713 -
y1_output_loss: 0.1375 - y2_output_loss: 0.3378 -
y1_output_root_mean_squared_error: 0.3716 - y2_output_root_mean_squared_error:
0.5772 - val_loss: 1.0586 - val_y1_output_loss: 0.1728 - val_y2_output_loss:
0.8500 - val_y1_output_root_mean_squared_error: 0.4194 -
val_y2_output_root_mean_squared_error: 0.9395
Epoch 494/500
614/614 [=====] - 0s 137us/sample - loss: 0.3409 -
y1_output_loss: 0.1134 - y2_output_loss: 0.2304 -
y1_output_root_mean_squared_error: 0.3368 - y2_output_root_mean_squared_error:
0.4769 - val_loss: 1.5856 - val_y1_output_loss: 0.2884 - val_y2_output_loss:
1.2512 - val_y1_output_root_mean_squared_error: 0.5429 -
val_y2_output_root_mean_squared_error: 1.1361
Epoch 495/500
614/614 [=====] - 0s 134us/sample - loss: 0.4379 -
y1_output_loss: 0.1278 - y2_output_loss: 0.3073 -
y1_output_root_mean_squared_error: 0.3579 - y2_output_root_mean_squared_error:
0.5566 - val_loss: 0.7359 - val_y1_output_loss: 0.1911 - val_y2_output_loss:
0.5340 - val_y1_output_root_mean_squared_error: 0.4414 -
val_y2_output_root_mean_squared_error: 0.7356
Epoch 496/500
614/614 [=====] - 0s 130us/sample - loss: 0.4163 -
y1_output_loss: 0.1323 - y2_output_loss: 0.2941 -
y1_output_root_mean_squared_error: 0.3479 - y2_output_root_mean_squared_error:
0.5434 - val_loss: 1.1637 - val_y1_output_loss: 0.6629 - val_y2_output_loss:
0.5447 - val_y1_output_root_mean_squared_error: 0.7816 -

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val_y2_output_root_mean_squared_error: 0.7434
Epoch 497/500
614/614 [=====] - 0s 132us/sample - loss: 0.3998 -
y1_output_loss: 0.1290 - y2_output_loss: 0.2687 -
y1_output_root_mean_squared_error: 0.3589 - y2_output_root_mean_squared_error:
0.5205 - val_loss: 0.5617 - val_y1_output_loss: 0.1479 - val_y2_output_loss:
0.4021 - val_y1_output_root_mean_squared_error: 0.3827 -
val_y2_output_root_mean_squared_error: 0.6444
Epoch 498/500
614/614 [=====] - 0s 135us/sample - loss: 0.4967 -
y1_output_loss: 0.1182 - y2_output_loss: 0.3761 -
y1_output_root_mean_squared_error: 0.3448 - y2_output_root_mean_squared_error:
0.6147 - val_loss: 1.2832 - val_y1_output_loss: 0.3752 - val_y2_output_loss:
0.8667 - val_y1_output_root_mean_squared_error: 0.6228 -
val_y2_output_root_mean_squared_error: 0.9462
Epoch 499/500
614/614 [=====] - 0s 137us/sample - loss: 0.3999 -
y1_output_loss: 0.1225 - y2_output_loss: 0.2754 -
y1_output_root_mean_squared_error: 0.3514 - y2_output_root_mean_squared_error:
0.5258 - val_loss: 0.8283 - val_y1_output_loss: 0.2082 - val_y2_output_loss:
0.6064 - val_y1_output_root_mean_squared_error: 0.4621 -
val_y2_output_root_mean_squared_error: 0.7840
Epoch 500/500
614/614 [=====] - 0s 137us/sample - loss: 0.3510 -
y1_output_loss: 0.1235 - y2_output_loss: 0.2248 -
y1_output_root_mean_squared_error: 0.3525 - y2_output_root_mean_squared_error:
0.4762 - val_loss: 0.6420 - val_y1_output_loss: 0.1543 - val_y2_output_loss:
0.4702 - val_y1_output_root_mean_squared_error: 0.3931 -
val_y2_output_root_mean_squared_error: 0.6982

```

1.7 Evaluate the Model and Plot Metrics

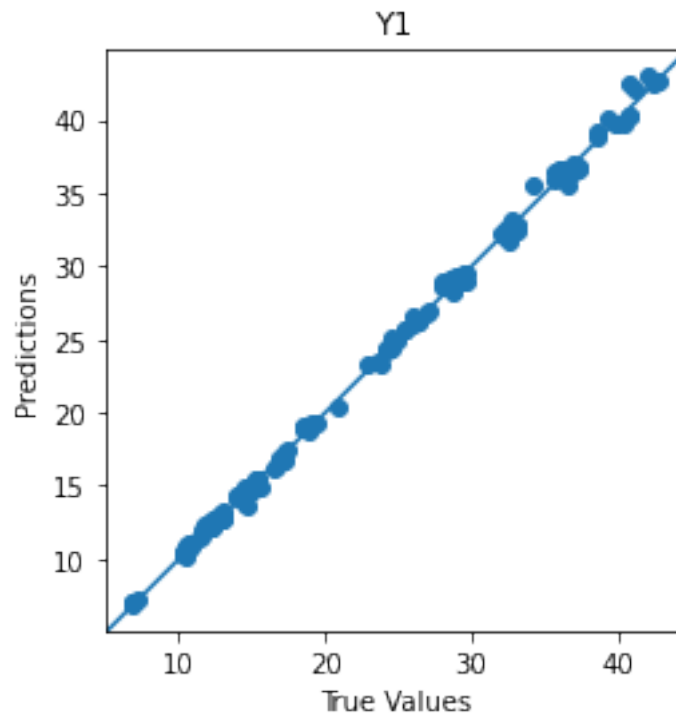
```

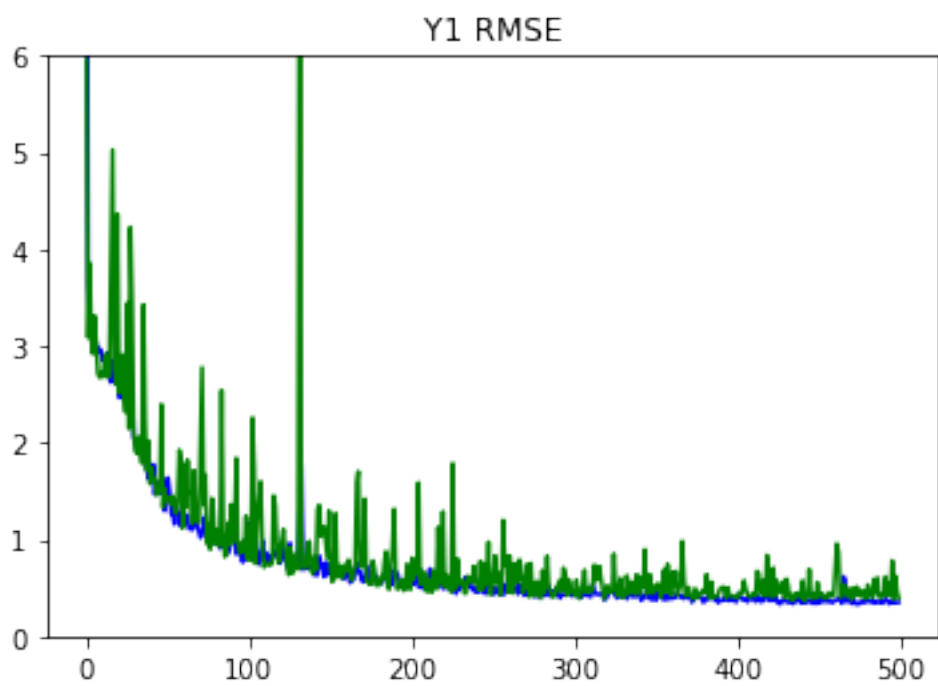
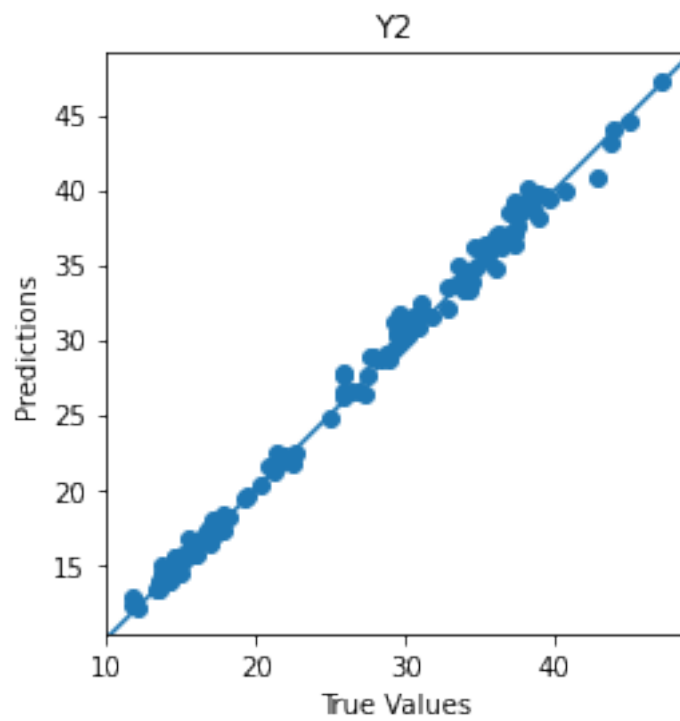
[7]: # Test the model and print loss and mse for both outputs
loss, Y1_loss, Y2_loss, Y1_rmse, Y2_rmse = model.evaluate(x=norm_test_X,
    ↪y=test_Y)
print("Loss = {}, Y1_loss = {}, Y1_mse = {}, Y2_loss = {}, Y2_mse = {}".
    ↪format(loss, Y1_loss, Y1_rmse, Y2_loss, Y2_rmse))

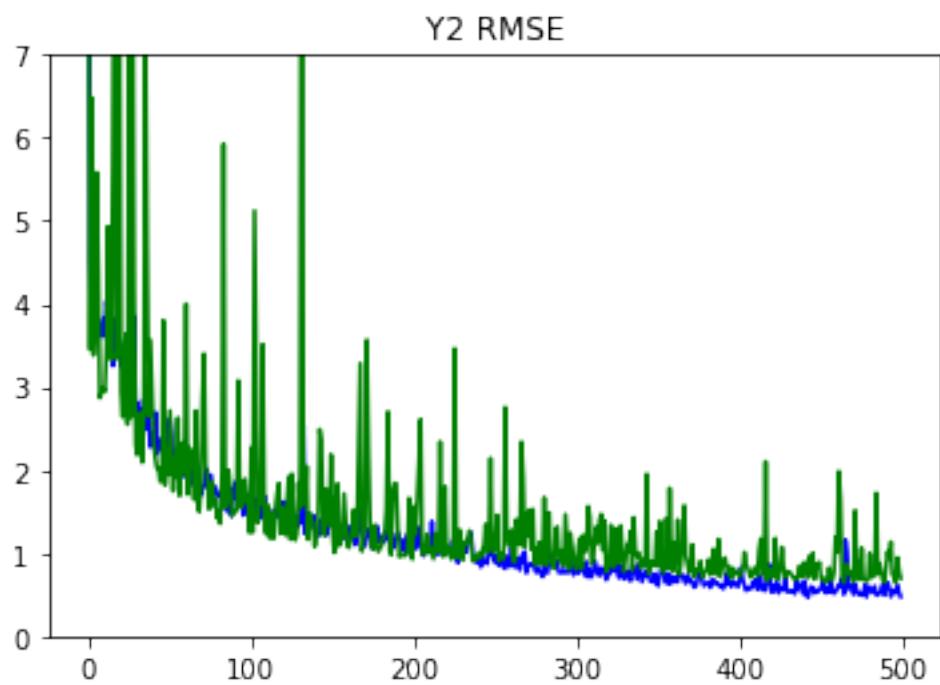
154/154 [=====] - 0s 37us/sample - loss: 0.6420 -
y1_output_loss: 0.1545 - y2_output_loss: 0.4906 -
y1_output_root_mean_squared_error: 0.3931 - y2_output_root_mean_squared_error:
0.6982
Loss = 0.642000771962203, Y1_loss = 0.15450501441955566, Y1_mse =
0.3931349217891693, Y2_loss = 0.49060338735580444, Y2_mse = 0.6981731057167053

```

```
[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)
```







[]:

[]: