

Recurrent neural network

Xiaoguai Li

Train recurrent neural network to predict

$$f = \sin(\pi t) + \sin(\pi/2.0 * t) + \sin(\pi/4.0 * t)$$

for $t \in [0, 100]$. Figure.1 is obtained from RNN_timeSequence.py. The long short-term memory networks are realized in LSTM.py. The test interval is $[66.5, 100]$. The L2 norm error of following plot is 6.94666%.

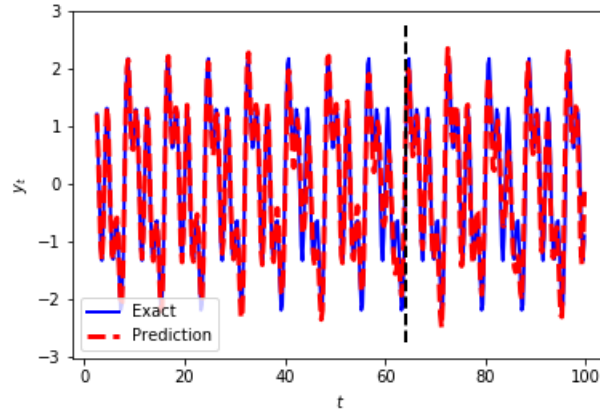


Figure 1: Prediction and exact values at different time