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What do you want to learn?









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# Week 2

Sequences, Time Series and Prediction

#### Week 2

Discuss this week's modules here. 247 threads · Last post 7 days ago Go to forum

## **Deep Neural Networks for Time Series**



Laurence Moroney

Having explored time series and some of the common attributes of time series such as trend and seasonality, and then having used statistical methods for projection, let's now begin to teach neural networks to recognize and predict on time series!

#### **Deep Neural Networks for Time Series**

**▶ Video:** A conversation with Andrew Ng 1 min

Resume

- ▶ Video: Preparing features and labels 4 min
- ▶ Video: Preparing features and labels 3 min
- Reading: Preparing features and labels notebook 10 min
- Reading: Sequence bias 10 min
- ▶ Video: Feeding windowed dataset into neural network 2 min
- ▶ Video: Single layer neural network 2 min
- **▶ Video:** Machine learning on time windows 37 sec
- ▶ Video: Prediction 2 min
- Video: More on single layer neural network 2 min
- Reading: Single layer neural network notebook 10 min
- ▶ Video: Deep neural network training, tuning and prediction 4 min
- **▶ Video:** Deep neural network 3 min
- Reading: Deep neural network notebook 10 min
- Quiz: Week 2 Quiz 9 questions Due Nov 23, 1:59 AM CST
- Reading: Week 2 Wrap up 10 min

## Weekly Exercise - Create Synthetic Data and predict with a DNN

- Ungraded External Tool: Exercise 2 Predict with a DNN 1h
- $\ \ \, \bigcirc$  Ungraded External Tool: Exercise 2 Answer- Predict with a DNN  $\ ^{1h}$