**ADTA 5900/5560.701: Video Lecture Links**

# Week 1

## Introduction to Jupyter Notebook (REVIEW)

How To Use Jupyter Notebook

<https://youtu.be/WfgCdft1fow>

## Introduction to Big Data (REVIEW)

--) Introduction to Big Data 1

<https://youtu.be/KIs0E2mcC4I>

--) Introduction to Big Data 2

<https://youtu.be/ng8ZmUSSHEM>

## Big Data: Structured and Unstructured Data (REVIEW)

--) Structured vs Unstructured Data 1

<https://youtu.be/q5A_jIlRcZg>

--) Structured vs Unstructured Data 2

<https://youtu.be/Qg_qALnnleg>

# Week 2

## Machine Learning & Big Data

AI: Machine Learning & Big Data I

<https://youtu.be/_d96I8kOubw>

AI: Machine Learning & Big Data II

<https://youtu.be/B0Smrwgk5sU>

AI: Machine Learning & Big Data III

<https://youtu.be/oN3jJWjVgdM>

AI: Machine Learning & Big Data IV

<https://youtu.be/UYAtVqBrYQ8>

AI: Machine Learning & Big Data V

<https://youtu.be/zCo-GItiheE>

## AI: ANN: Feedforward Neural Networks

AI: ANN: Feedforward Neural Networks I

<https://youtu.be/Pkj0MfM-Nok>

AI: ANN: Feedforward Neural Networks II

<https://youtu.be/t5SBFureGxI>

# Week 3

## AI: ANN: Recurrent Neural Networks

AI: RNN: Recurrent Neural Networks I

<https://youtu.be/RCXyEp9yotY>

AI: RNN: Recurrent Neural Networks II

<https://youtu.be/TD1MKIbh_F8>

## AI: RNN: Simple Recurrent Neural Networks

AI: RNN: Simple Recurrent Neural Networks I

<https://youtu.be/APb1sXWzwHw>

AI: RNN: Simple Recurrent Neural Networks II

<https://youtu.be/uCotuST3e1g>

## Build, Train, and Test Simple RNN with Keras on Sine Wave Data

AI: RNN: Simple RNN with Sine Wave Data and Keras I

<https://youtu.be/CcN7ucFEYIc>

AI: RNN: Simple RNN with Sine Wave Data and Keras II

<https://youtu.be/wFuByXsBCfQ>

AI: RNN: Simple RNN with Sine Wave Data and Keras III

<https://youtu.be/mD3GnwjYM_s>

AI: RNN: Simple RNN with Sine Wave Data and Keras IV

<https://youtu.be/jP85vmnvQrA>

AI: RNN: Simple RNN with Sine Wave Data and Keras V

<https://youtu.be/hDrl5osf_ew>

# Week 4: Midterm Assessment

N/A

# Week 5

## AI: RNN: Long Short-Term Memory Neural Network (LSTM)

AI: Deep Learning: Recurrent Neural Networks: LSTM I

<https://youtu.be/5tptmyCuRFQ>

AI: Deep Learning: Recurrent Neural Networks: LSTM II

<https://youtu.be/ITuUBJWiPA8>

AI: Deep Learning: Recurrent Neural Networks: LSTM III

<https://youtu.be/leswJM8FRMI>

AI: Deep Learning: Recurrent Neural Networks: LSTM IV

<https://youtu.be/_HCRwjgGovE>

AI: Deep Learning: Recurrent Neural Networks: LSTM V

<https://youtu.be/LeqOwO_LqKo>

AI: Deep Learning: Recurrent Neural Networks: LSTM VI

<https://youtu.be/qBMosWhZX70>