

# Summer 2021: CSEE5590 – Special Topics

## Python\_Lesson\_7\_Lecture\_1: LSTM

### Lesson Overview:

In this lesson, we are going to discuss types of ANNs and Recurrent Neural Network.

### Use Case Description:

1. Sentiment Analysis on the Twitter dataset

### Programming elements:

1. Basics of LSTM
2. Types of RNN
3. Use case: Sentiment Analysis on the Twitter data set

### Source Code:

Provided in your assignment folder and assignment repo.

### Assignment:

1. Train and save the model and use the saved model to predict on new text data (ex, “**A lot of good things are happening. We are respected again throughout the world, and that's a great thing.** @realDonaldTrump”)
2. Apply the code on spam data set available in the source code (text classification on the **spam.csv** data set)

### Online Submission Guidelines (for Online students):

1. Submit your source code and documentation to GitHub and represent the work in a ReadMe file properly (submit your screenshots as well. The screenshot should have both the code and the output)
2. Comment your code appropriately
3. Video Submission (2 – 5 min video showing the demo of the assignment, with brief voice over on the code explanation)

**Note:** *Cheating, plagiarism, disruptive behavior and other forms of unacceptable conduct are subject to strong sanctions in accordance with university policy. See detailed description of university policy at the following URL:* <https://catalog.umkc.edu/special-notices/academic-honesty/>