# Fall 2021: CSEE5590/490 - Special Topics

# Python and Deep Learning Module-2 - ICP-12

#### **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. <u>Train</u> and <u>save</u> the model and use the <u>saved</u> 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)

#### \*\* Follow the IPC rubric guidelines.

#### **Submission Guidelines:**

- 1. Once finished present your work to TA during class time.
- 2. Once evaluated submit your source code and documentation to GitHub and represent the work in a ReadMe file properly (short summary for the ICP).

## After class submission:

- 1. Complete your work and submit to your repo before the deadline.
- 2. Record a short video  $(1\sim3)$  minute, explaining the technical part and method used.
- 3. Add video link to ReadMe file.

**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: <a href="https://catalog.umkc.edu/special-notices/academic-honesty/">https://catalog.umkc.edu/special-notices/academic-honesty/</a>