**CS5590 APS - Deep Learning Programming**

**ASSIGNMENT 3**

**Deadline: 05/09/2018**

**Task:**

1. Implement the Text classification with CNN model with new data set which is not used in class

2. Implement the Text classification with RNN model with new data set which is not used in class

3. Implement the Text classification with LSTM model with new data set which is not used in class

4. Compare results of CNN, RNN and LSTM for text classification (same data set for 3 models for comparison) and describe, which model is best for text classification based on your results

**Submission Guidelines:**

1. Submit your source code and documentation to GitHub and represent the work through wiki page properly (submit your screenshots as well. The screenshot should have both the code and the output)

2. Comment your code appropriately

3. Submit **only** report at Turnitin in UMKC blackboard

4. Remember that similarity score should be less than 15%

5. Use this link to submit your assignment: <https://goo.gl/forms/l9TitNZJ8yLCwGEW2>

6. Report should include below details

1. Introduction
2. Objectives
3. Approaches/Methods
4. Workflow
5. Datasets
6. Parameters
7. Evaluation & Discussion
8. Conclusion

**Example Reports:**

<https://github.com/stratospark/food-101-keras>

<https://github.com/matterport/Mask_RCNN>

<http://blog.stratospark.com/deep-learning-applied-food-classification-deep-learning-keras.html>

**Reference for Datasets:** No need to stick with these datasets. You can choose your own dataset

<https://snap.stanford.edu/data/web-Amazon.html>

<https://www.kaggle.com/cfpb/us-consumer-finance-complaints>

<http://ana.cachopo.org/datasets-for-single-label-text-categorization>

<https://archive.ics.uci.edu/ml/datasets/reuters-21578+text+categorization+collection>