

CS 6304 Deep Learning [50 points]

Purpose: The purpose of this assignment is to test concepts on hyper parameter optimization.

What to submit: Submit Jupiter notebook or python .py file that contains code and proper comments. You do not need to submit the data sets.

Refer to **TextClassification_LSTM.ipynb** under week 5 which illustrates text classification using different LSTM Models.

- layer1_lstm_model
 - layer2_lstm_model
 - cnn_lstm_model
 - bi_lstm_model
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- Your goal is to perform **Hyperparameter optimization** (using HyperOpt python package) on any one of the four models of your choice. You are free to choose which hyperparameters (you should choose at least 2 hyperparameters) to optimize. You can refer to Hyperoptimization jupyter notebook distributed via blackboard to follow how to perform hyperparameter optimization.
 - Conduct hyperparameter optimization by setting the number of evaluations/iterations of the hyperparameter optimization process to 10.
 - From the hyperparameter optimization, find the best model and perform prediction on the testing set.