## DNNs with LR

**LSTM + Random+ LR (Logistic Regression)**

!python nn\_classifier.py logistic lstm\_random.h5

**BiLSTM + Random + LR**

!python nn\_classifier.py logistic bi\_lstm\_random.h5

**CNN+LSTM + Random+ LR**

!python nn\_classifier.py logistic cnn\_lstm\_random.h5

**CNN+GRU + Random+ LR**

!python nn\_classifier.py logistic cnn\_gru\_random.h5

## DNNs with Basic Preprocessing + Hybrid Feature (TF\_IDF\_WA) + LR

**LSTM + Random + LR (Logistic Regression)**

!python nn\_classifier\_tfidf.py logistic lstm\_random.h5

**BiLSTM + Random + LR**

!python nn\_classifier\_tfidf.py logistic bi\_lstm\_random.h5

**CNN+LSTM + Random+ LR**

!python nn\_classifier\_tfidf.py logistic cnn\_lstm\_random.h5

**CNN+GRU + Random+ LR**

!python nn\_classifier\_tfidf.py logistic cnn\_gru\_random.h5

**Note:** First run the deep learning models to generate .h5 files and then use the below commands. (Ex: !python lstm.py -f GloVe/glove.twitter.27B.200d.txt -d 200 --tokenizer glove --loss categorical\_crossentropy --optimizer adam --initialize-weights random --learn-embeddings --epochs 10 --batch-size 128)

You can also check the Jupyter notebook for BiLSTM experiments and similarly you can carry out the other experiements