**Requirements**

1. Python3
2. Tensorflow
3. Numpy
4. Tesseract
5. Datasets
6. gensim

The steps for training CNN by learning embeddings from scratch:

#Train:
python train.py

Running Pruning Techniques:
For pruning we need to restore the checkpoint, which is saved in runs folder
#For running pruning by calculating variance
python prunebyvariance.py --prune

#For making new computational graph for  fine tuning and pruning iteratively
python prunebyvariance --make_graph

#For running pruning by calculating absolute weight
python prunebyweight.py--prune

#For making new computational graph for  fine tuning and pruning iteratively
python prunebyweight.py--make_graph

#For running pruning by calculating L2norms
python prunebyl2norm.py--prune

#For making new computational graph for  fine tuning and pruning iteratively
python prunebyl2norm.py --make_graph

#For running pruning by resetting negative filter weights as zero
python negativefilters.py--prune

#For making new computational graph for  fine tuning and pruning iteratively
python negativefilters.py --make_graph

The steps for training CNN by using fasttext:

Download fasttext pretrained word2vec file.

# Generate fasttext_vocab_en.dat, fasttext_embedding_en.npy
python util_fasttext.py

#Train
python train.py --pre_trained

For running pruning techniques for the model same procedure has to be followed as above.

**References :**
**1.** https://github.com/dennybritz/cnn-text-classification-tf