**Requirements**

Python 3.6

TensorFlow 1.10

Numpy

scikit-learn

matplotlib

keras

pandas

**Data**

Train data for training the model and test data for validation

Train data:

train\_x.npy 532\*12 (There are 266 labels for 1 and 266 labels for 0 data)

Test data:

test\_x.npy 228\*12 (There are 114 labels for 1 and 114 labels for 0 data)

**Model:**

The file of cnn.py is used to run the CNN model.

The file of rnn.py is used to run the RNN model.

The file of svm.py is used to run the SVM model.

The file of lr.py is used to run the Logistic Regression model.

The file of cnn\_paraopt.py is used to tune the hyperparameters of CNN model.

The file of rnn\_paraopt.py is used to tune the hyperparameters of RNN model.

The file of svm\_paraopt.py is used to tune the hyperparameters of SVM model.

The file of lr\_paraopt.py is used to tune the hyperparameters of Logistic Regression model.

The file of stacking.py is used to run the stacking technique to obtain the stacking-meta-data.

The file of stacking\_LR.py is used to run the Logistic Regression model predict the stacking-meta-data.

The file of blending.py is used to run the blending technique to obtain the blending-meta-data.

The file of blending\_LR.py is used to run the LogisticRegression model predict the blending-meta-data.

The file of weighted\_averaging.py is used to run the weighted averaging ensemble model.

The file of simple\_averaging.py is used to run the simple averaging ensemble model.