Instruction

Tips I put the repository under /home/ubuntu/, so all the dictionary path in my code is /home/ubuntu/Face-emotion-recognition-master/XXX.

Preprocessing

1. Download fer2013.csv from https://www.kaggle.com/c/challenges-in-representation-learning-facial-expression-recognition-challenge/data
   Put it into /Preprocessing/data/fer2013
2. Run /Preprocessing/code/FER2013_extraction_from_csv.py
3. Prepare for MTCNN environment

```
pip3 install mtcnn
pip3 install tensorflow==1.4.1 opencv-contrib-python==3.2.0.
```

4. Use Python3 run /Preprocessing/code/Face-detection+alignment.py to do face detection and face alignment.
5. Create training and testing list. Run /Preprocessing/code/FER2013_get_file_list_LMDB.py
6.

```
chmod 777 /Preprocessing/code/convert_lmdb.sh
chmod 777 /Preprocessing/code/compute_mean.sh
/Preprocessing/code/convert_lmdb.sh
/Preprocessing/code/compute_mean.sh
```

Train

```
python2 /Train/code/train.py
```

Test

```
chmod 777 /Test/code/test_plot_confusion_matrix.sh
```

```
/Test/code/test_plot_confusion_matrix.sh
```

Predict

```
python2 /Test/code/predict.py
```