Environment:

Linux ubuntu 14.04

Installation:

a. Install HIPI: http://hipi.cs.virginia.edu/

b. Install OpenBR: http://openbiometrics.org/doxygen/latest/linux_gcc.html

c. Install OpenCV: http://docs.opencv.org/doc/tutorials/introduction/linux_install/linux_install.html

PreProcessing:

1. To download images, refer to the link: https://github.com/XingKaihang/FindFaceImage
2. To create eigen vector from some pictures :https://github.com/XingKaihang/create_feature

Running:

1. HIPI + YARN + SHELL

a. Make a directory named “facedetec” in hipi/ directory;

b. Copy all files in HIPI+YARN+SHELL to “facedetec” directory;

c. Edit hipi/build.xml

```
<target name="facedetec">
  <antcall target="compile">
    <param name="srcdir" value="facedetec" />
    <param name="jarfilename" value="face.jar" />
    <param name="jardir" value="facedetec" />
    <param name="mainclass" value="facedetec.FaceDetect" />
  </antcall>
</target>
```

d. run command “ant facedetec” to build the project;

e. run command “hadoop jar facedetec/face.jar <hib file in hdfs> <output directory>”

2. HIPI + JNI + OPENBR

a. Make a directory named “facedetec” in hipi/ directory;

b. Copy all files in HIPI+JNI+OPENBR to “facedetec” directory;

c. Edit hipi/build.xml

```
<target name="facedetec">
  <antcall target="compile">
    <param name="srcdir" value="facedetec" />
    <param name="jarfilename" value="face.jar" />
    <param name="jardir" value="facedetec" />
    <param name="mainclass" value="facedetec.FaceDetect" />
  </antcall>
</target>
```

d. run command “ant facedetec” to build the project;

e. run command “hadoop jar facedetec/face.jar <hib file in hdfs> <output directory>”

Note: In FaceDetectJNI directory, you can use any IDE to generate libfacedetectjni.so dynamic library.Put the library to the “~/” path.

3. HADOOPSTREAMING + OPENCV

a. Use gcc command to compile the project.

b. rum the command hadoop jar /opt/hadoop-2.6.0/share/hadoop/tools/lib/hadoop-streaming-2.6.0.jar -input <input txt featurefile> -output <output directory> -mapper facecalmapper -file facecalmapper -reducer facecalreducer -file facecalreducer