Documentation

1. Install python and it's support libraries on a desktop computer.

    Python 2.7
    Pip
    Numpy
    Scipy
    cPickle
    opencv
    CUDA

2. Open the RetinaVisionWeb folder and run the webapp.py.

3. Find the IP address of the desktop computer under the current Internet. Open a browser and log in the IP + port (:8888) website. For example, 192.168.137.1:8888. If you can see a message as "Retina Service is Running!", this means the server is successful running on desktop.

3. Open the RetinaVisionApp folder, then go app→release, install the app-release.apk file on an Android smartphone.

4. Then go to the phone settings→Apps, select the RetinaVisionApp. Click on the permissions and allow all shown permissions for this application.

5. Open the application and click on settings. Then, click the restore default button in the settings interface. It will show a default template for each URL field. Enter the IP address you find as the hostname and enter 8888 as the port. For example, the URL field can be entered as "http://192.168.137.1:8888/retina". Click the save button when you finish these URLs.

6. Back to the main interface by clicking the back button at the bottom. Click the check server button and the current server status will be shown below. If the server status shows as online, this represents a connection is successfully built between the application and the server. Then, all activities can be used from now.

Attention:

No open port of the university Wi-Fi for security reasons. There is an alternative approach to build the connection if the desktop computer has a mobile hotspot function.

Firstly, open the mobile hotspot on the desktop computer and connect the phone to this hotspot. Secondly, find the IP address for this hotspot. Thirdly, follow the fifth step with this IP address.