FACE RECOGNITION PROJECT

--- HACKATHON MIDTERM REPORT

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Accomplished Work

- Cloud Part:

✓ Set up the cloud platform on Amazon EC2 with CUDA GPU and torch environment

Step by step process in Github project page

https://github.com/wangyuntong/Face-recognition-service-on-Mobile-Cloud

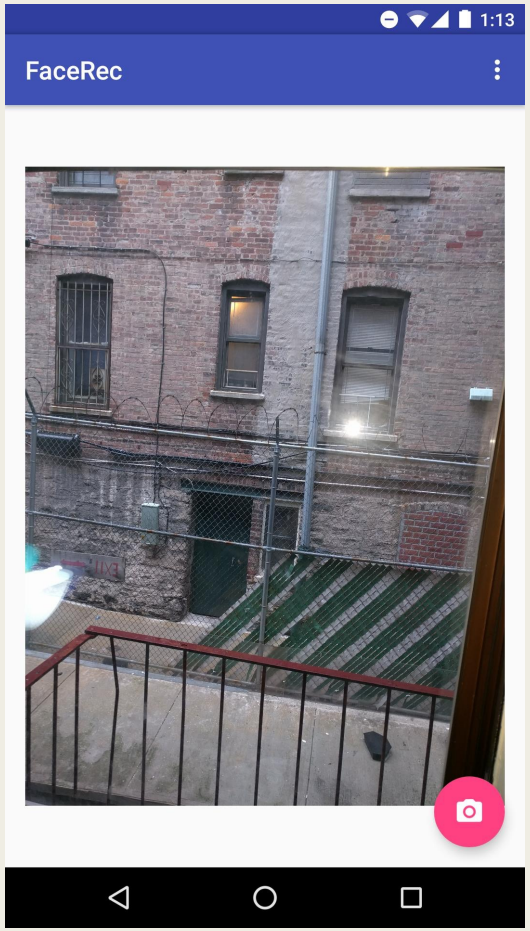
✓ Successfully run CNN (convolutional neural networks) model[1] on FDDB dataset[2] and get the face location results as rectangle coordinates file

results_on_cloud.txt

```
2002/08/11/big/img_591
2
165 85 191 191 -0.087209105491638
63 195 220 220 -0.72754228115082
2002/08/26/big/img_265
4
58 66 98 98 -0.083497881889343
293 73 122 122 -0.091512799263
160 107 75 75 -0.49270540475845
115 33 94 94 -0.76161885261536
2002/07/19/big/img_423
2
156 74 165 165 -0.2839829325676
2 104 90 90 -0.543605864048
2002/08/24/big/img_490
1
96 47 98 98 -0.14031946659088
2002/08/31/big/img_17676
4
50 64 122 122 -0.081719517707825
40 247 132 132 -0.64479446411133
190 85 53 53 -0.74801528453827
2 36 83 83 -0.77143448591232
2002/07/31/big/img_228
3
62 74 90 90 -0.047609210014343
246 32 98 98 -0.060038805007935
291 137 53 53 -0.77208149433136
2002/07/24/big/img_402
```

- Mobile Part:

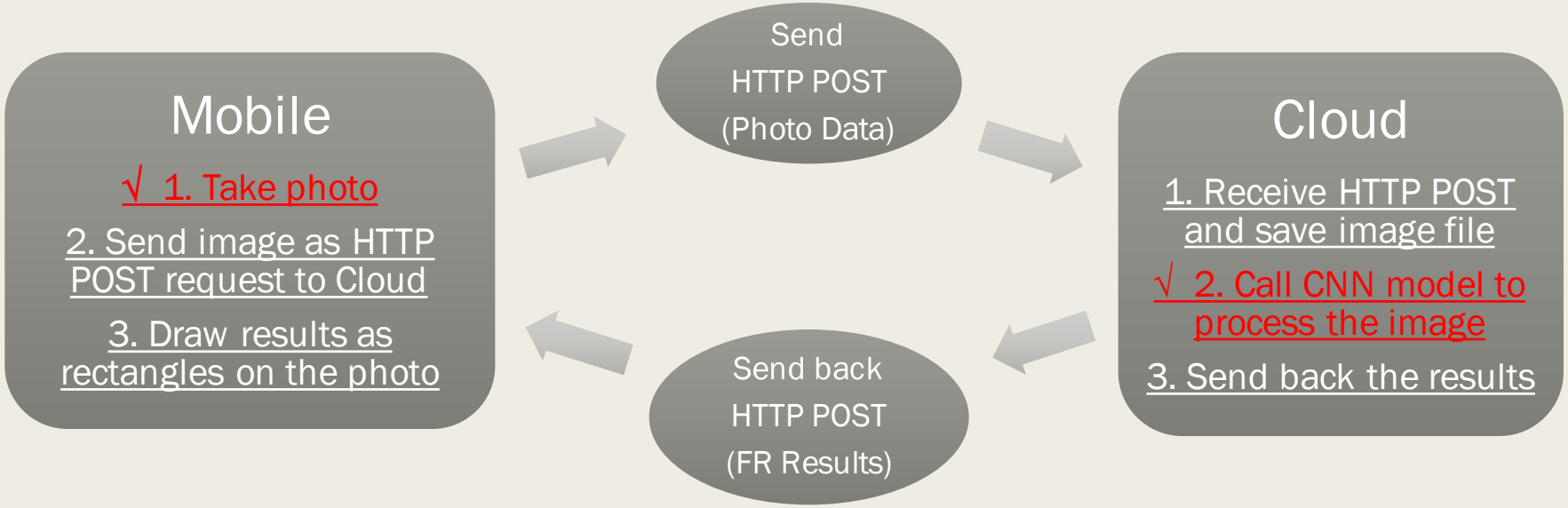
✓ Built an Android app that can take photos



[1] Provided by mentor **Vaibhava Goel** from IBM research

[2] From University of Massachusetts-Amherst Computer Vision Lab http://vis-www.cs.umass.edu/fddb/index.html

Workflow and Next Step Plan



✓ We have already accomplished Mobile part 1 and Cloud part 2.

- Next Step Plan:
  - Mobile Part:
    - Send image that resides in an HTTP POST body to cloud, with header field photo ID to identify the image.
    - Draw results as rectangles on the faces of the photo
  - Cloud Part:
    - Send image that resides in an HTTP POST body to cloud, with header field photo ID to identify the image.
    - Draw results as rectangles on the faces of the photo