EE/CprE/SE 491 WEEKLY REPORT 6

Week 11 – Week 12

Group number: 20-18

Project title: Development of Image Analysis Algorithms for Crack Detection Using a Smartphone

Client &/Advisor: Bo Yang/Halil Ceylan

Team Members/Role: Akira Demoss, Maggie Dalton, Modeste Kenne, Nik Thota

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- **Weekly Summary**

This week was mostly spent finishing the combination of the individual components of the project, adding features to the web portal, and getting ready for testing.

- **Past week accomplishments**
  - Akira
    - Resolved tensorflow issues
    - Completed training of neural network
    - Collected graph of training loss
  - Maggie
    - Android app functionalities now combined
      - Can make inferences and capture images at the same time
    - Google Maps functionality for the web portal
  - Modeste
    - Worked on the final IRP presentation
  - Nik
    - Created base for web portal UI
      - Two panes

- Left pane lists cracks with id/type
- Right pane lists crack information for a selected crack

○ **Pending issues**

- Google Maps requires billing information in order to use Google Maps within a project. From what has been seen, it is likely that this project's usage would be within the free tier but we would still require a billing account to be associated with the project.

○ **Individual contributions**

Name	Individual Contributions	Hours this week	Hours Cumulative
Akira Demoss	Trained object detector	8	67
Maggie Dalton	Combined functionalities for Android, Google Maps for web	10	65
Modeste Kenne	Worked on the final IRP presentation	5	53
Nik Thota	Worked on web portal	8	56

○ **Plans for the upcoming week**

- Akira
  - Get trained object detector working with mobile device
  - Test object detector
- Maggie
  - Test application with the crack detection model on Iowa roads
  - Add functionality for crack data to be editable from the web portal
    - Update type/location/etc.
- Modeste
  - Work on the final report
  - Work on miscellaneous tasks required for the completion of the project
- Nik
  - Ability for cracks to be sorted based upon type/date in the web portal
  - Add display of additional information requested by our client like date and time

- **Summary of weekly advisor meeting**

We discussed how deliverables should be delivered and the schedule of meetings for the end of the semester as well as current project progress.