EE/CprE/SE 491 WEEKLY REPORT 5

Week 9 – Week 10

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, we worked to complete all of our individual components so that we can start combining the pieces. The individual parts we worked on were tensorflow, the Android application, the web client, and the backend services. We will combine them in the coming weeks.

- **Past week accomplishments**
  - Akira
    - Debugged tensorflow install fixed error with stream_executor
    - Updated tensorflow installation instructions
  - Maggie
    - Worked on combining inferencing with image capture on Android application
      - Parts function separately, but do not work combined
  - Modeste
    - Created functions for adding, getting and deleting images of cracks on the database.
    - Merged the scripts for the routing so one source can be used to start and

stop the server.

- Nik
    - Worked on using get and post requests for authentication.
    - Created a page for local testing.

- **Pending issues**
    - Still having issues compiling tensorflow.
    - Maggie
        - Combining the way I implemented inferencing and image capture is not possible with the version of Androidx (API for camera) I had used for both. I have to migrate to a newer version and modify my implementation of both.

- **Individual contributions**

Name	***Individual Contributions***	***Hours this week***	***Hours Cumulative***
Akira Demoss	Debugged tensorflow install fixed error with stream_executor, Updated tensorflow installation instructions	6	59
Maggie Dalton	Worked on combining machine learning with existing Android app	8	55
Modeste Kenne	Created functions for adding, getting and deleting images of cracks on the database.	9	48
Nik Thota	Worked on using get and post requests for authentication and created a page for testing.	10	48

- **Plans for the upcoming week**
    - Akira
        - Finish getting tensorflow installed, and train a model for object detection

- Maggie
    - Finish combing inferencing and image capture
    - Work with Nik on the web portal
- Modeste
    - Create Node.js routes for each of the database functions
    - Combine routing functions with the existing functionalities to store and retrieve images from the filesystem
    - Start working on the final IRP presentation
- Nik
    - Create a display for viewing the cracks as pictured in the design created by Maggie.

- **Summary of weekly advisor meeting**

N/A, we plan to meet via Google Hangouts next week