

EE/CprE/SE 492 WEEKLY REPORT 01

1/11/2020 – 1/24/2020

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

(All the above information should be there in each weekly report. The format/color scheme etc need not be the same. However, please remove everything that is in a bracket from your final submission. These are just part of the template and need not be a part of the report.)

- **Weekly Summary**

This week we worked on getting set up for the spring semester and beginning work on the client-side portions of the project. We created a rough plan for the creation of the web-based client and the Android application.

- **Past week accomplishments** *(Please describe/summarize as to what was done, by*

whom, when and, collectively as a group. This should be about a paragraph or two in length. Bulleted points are acceptable as well. Please keep only your technical details related to your project. Figures, schematics, flow diagrams, pseudocode, and project related results are acceptable, but please ensure that they are legible (clear enough to read) and to provide an explanation. If researching a topic, please add a few details about what was learned and how it is relevant to the project. If two or more people worked on a single task, be sure to distinguish how each member contributed to the task. Specific details relating to the assistance provided to other

members may be included here. Do not include classwork, such as individual reflection assignments, and group meetings as part of your duties.)

- Maggie
 - Set up Node.js server with routing for requests
 - Set up MySQL database
 - Added login/account creation functionality to base Android app
 - Added base functionality for image capture
 - Camera takes images every 1 sec
 - Images are saved to Android device
 - Start/stop button for camera
- Modeste
 - Worked with Maggie to set up the server to process image requests sent by the client
 - Learned more about using node.js and express to send images to the server
- Nik
 - Reviewed web design languages html and css.
 - Created web page for login and registration.
 - Reviewed react native documentation.
- Akira
 - Identified deep learning resources on the trello board:
 - Found slightly outdated video for training a custom mobilenet object detector, but looks useful at least for information purposes
<https://www.youtube.com/watch?v=JR8CmWyh2E8>
 - Identified model for boilerplate code `ssd_mobilenet_v1`
- **Pending issues**
 - Maggie
 - Tunnel used for previous projects on the Node.js server requires a separate, active terminal window to run. Looking into other options so that the tunnel is either not required or runs in the background.
 - Modeste
 - None at the moment
 - Nik
 - None right now.
 - Akira
 - None.

- **Individual contributions** (*Creating this section is optional, but it is **Required to include the***

“Hours Worked for the Week” and their “Total Cumulative Hours” for the project for each member somewhere relevant in your report. Your individual weekly hours should be at a minimum of 6-8 hours for this course. So please manage your time well. Also, ensure that individual contributions support your claim to the weekly hours. Be honest with the reports.)

Name	Individual Contributions (Quick list of contributions, this should be short)	Hours this week	Hours Cumulative
<i>Akira Demoss</i>	Organized semester schedule and facilitated meeting, familiarized myself with new technology, identified several resources to self-educate, looking to begin training this week.	12	12
<i>Maggie Dalton</i>	Server/db setup, account creation/login for Android	13	13
<i>Modeste Kenne</i>	node.js script using Express on the server	9	9
<i>Nik Thota</i>	Created a webpage for login and registration. Reviewed documentation on react native.	10	10

- **Comments and extended discussion** (*Optional*)

Feel free to discuss non-technical issues related to your project.

- **Plans for the upcoming week**

- **Maggie**
 - Image is sent from Android device to server
 - Store image information (associate with pin/location) in the database
 - Google Maps integration

- Create pin when images are created
 - Add pin to the user's map
 - Associate pin with image in the database
- Modeste
 - Continue working on the node.js script
 - Make an HTML form containing file input element
- Nik
 - Work on post and get requests for login information
 - Make a react native app
 - Create a webview for seeing your results after a crack detection drive

- **Summary of weekly advisor meeting**

N/A

First meeting scheduled for week 3.

Grading criteria

Each weekly report is worth 10 points. Scores will be awarded as follows:

- **8 – 10:** Progress for your project seems to be suitable. Documentation and hours reported by team members are adequate.
- **6 – 8:** There is scope of improvement both in your report and your project progress. Can consult with instructor/TA after class for further inputs.
- **< 6:** Please talk to instructors/TA after class hours about any difficulties that you/your team is facing.

Each weekly report should be unique in that they have a unique set of supporting details for your contributions. So please do not just copy your reports from the previous week. In addition, please avoid any personal pronouns (he, she, I, you). Try to keep your reports as neat as possible.