CprE 492 - sdmay20-13

Detection and classification of cracks on transportation infrastructure using UAV based aerial imagery

March 1 - March 12

Team Members

- Ian Seal - Reporting Lead
- Lauren Arner - Project Manager
- Madi Jacobson - Data Lead
- Ben Ferreira - Testing Lead
- John Schnoebelen - Software Developer
- Jack Temple - Software Developer

Past Week Accomplishments

Functional UI that connects trained epoch to run a folder of images selected by the user

- UI development and research
    - Developed a functioning UI prototype that can run a chosen epoch on a directory of images successfully.
    - Dealt with an issue where the output folder was not being created properly, halting the crack detection process. Changing the way the directory was created solved the problem.
- Peer Evaluation Presentation Completed
- Completed basis for accuracy calculations
- Client meeting
    - Met with client to give overview of progress made this semester
    - Received feedback on product as well as final goals from client

Pending Issues

- Decide on best way to output image metadata
- Record percentage of image marked as cracks
- Need data from each time the program is run to calculate different requirements

Individual Contributions

Team Member	Individual Contributions	Hours this sprint	Total Hours
Ben Ferreira	- Created functional UI prototype. - Debugged issue with creating output folder. - Peer review slideshow	8	24
John Schnoebelen	- Reformatted UI. - Created and voice two slides for presentation	6	21
Lauren Arner	- Client Meeting - Peer review slideshow - Second review of photos for accuracy	4	23
Madison Jacobsen	- Client meeting - Peer review slide show - test plan - Second/final review of photos	4	23
Ian Seal	- Code revisions - Peer review slideshow - Created presentation for client to show progress - Tested TensorFlow model	4	24
Jack Temple	- Drafted algorithm to determine how many concrete slabs are in a frame of reference - Trained TensorFlow project on my local machine - Met with client - Cleaned code	5	25

Plans For Coming Week

Lauren -
- Calculate accuracy for upcoming tests
- Peer review preparation

Madi -
- Calculate accuracy on upcoming tests
- Use recorded data to calculate more than accuracy of crack detection, such as runtime, reliability, and more.

Ian -
- Look into best way to output metadata
- Finalize epoch for trained model to use for client

Benjamin -
- Add a progress/loading bar to UI during crack detection
- Research best way to create .exe file for desktop application
- Look into best way to show outputted metadata

John -
- Obtain metadata into UI
- Develop loading bar for UI when running pictures through it

Jack -
- Add slab algorithm to GUI
- Change overlay of the outputted images