SDMAY18-37 - System and app for managing general faculty/staff parking on ISU campus
Advisor: Ahmed E. Kamal

Donavan Brooks: Backend Lead
Derrick Lockwood: Team Lead
Joseph Krajcir: Quality Assurance
John Ingwersen: Mobile Master
Riley Snyder: Webmaster
Mason Schreck: Communications Lead

Weekly Summary:

Past Week Accomplishments:
Donavan Brooks: Began working with TensorFlow, testing the already developed and trained models, as well as testing to create my own model for image classification.

Derrick Lockwood: Created a way to collect training data and started on detector commands.
Joseph Krajcir: Searched for more viable cameras. Worked with React Native platform for Android
John Ingwersen: Continued designing for mobile applications. Explored React Native option.
Riley Snyder: Started looking at firebase for web and editing my parts of the design doc.
Mason Schreck: Began development on the pre-processing device and attempting to devise communications strategies from the Pi

Pending Issues:
Donavan Brooks: Figuring out how to set up our basic infrastructure in the parking lots we were provided for testing, without having to use ISU services.
Derrick Lockwood: Mounting a camera on a tree won't work to implement due to sway and brush of tree.
Joseph Krajcir: Mount location for the camera.
John Ingwersen: React Native running and how to synchronize iOS and Android.
Riley Snyder: Mesh networking probably won't work.
Mason Schreck: Which type of communications protocol to use, do we design for constant network connectivity, and camera location.

Individual Contributions:

Name	Individual Contributions	Hours This Week	Hours Cumulative
Donavan Brooks	Began working with	3	14

	tensorflow to gain a better understanding		
Derrick Lockwood	Data collection	8	26
Joseph Krajcir	Found cheaper camera solutions.	3	14
John Ingwersen	Mobile development options and design.	3	15
Riley Snyder	Started looking at firebase for web	3	14
Mason Schreck	Began development on the Pi	2	14

Comments and extended discussion:

Plan for coming week:
Donavan Brooks: Working with Derrick to flush out our model and issues that we need to work on for backend development.
Derrick Lockwood: Continue with the data collection review and merge into master. Start on the model.
Joseph Krajcir: Establish possible Mount locations at lot 7
John Ingwersen: Establish a platform for creating applications.
Riley Snyder: Take look at lot 7, test using firebase, post final design doc to web.
Mason Schreck: Have a Pi emitting a heartbeat to Firebase, along with a mock chain of associated cameras

Summary of weekly advisor meeting:
- Look into the translating installation of sensors (money and time) to the camera install
- Problems from each camera
    - Power
    - Coverage and mount
    - Range of Wifi
- Look into Bluetooth 5 for possible usage (redbear)
- No mentor meeting next week