

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

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### **Weekly Summary:**

#### **Past Week Accomplishments:**

Donavan Brooks: Fixed edge cases for bounding box creator, as well as added pop ups for error messaging. Also users can now edit bounding boxes that are already in the DB and update them.

Derrick Lockwood: Finished Heuristics putting up for review. Found security rules that we should talk about as a group and probably have the front end do the testing on the rules. Added Early Stopping technique to training.

Joseph Krajcir: Got the mobile app running on an Android virtual device using Genymotion. Wrote up a wiki going over how to set up React Native and run our Android application using either a physical or virtual device. Researched and found tutorials on how to generate an APK for our Android app and how to upload the APK to the Google Play Store.

John Ingwersen: Made progress toward reducing firebase interactions within mobile application. Made plans for dealing with mobile licensing issues.

Riley Snyder: Finished OpenCV and LiveSpot installation scripts. Wrote a wiki for installation.

Mason Schreck: Implemented async updating of spots, made website components more modular. Implemented the handling of both school and lot maintenance flags thrown in Firestore. Put lot 7 up on the website with a handful so spots to begin testing, embedded a video on the homepage that will allow us to put a commercial online.

#### **Pending Issues:**

Donavan Brooks: None

Derrick Lockwood: Performance of the lots trying to fix false negatives and false positives.

Joseph Krajcir: Need to finalize the state our app in order to generate an APK and upload to Google Play Store. There is also a one-time registration fee of \$25 to upload to the Google Play Store. Also might want to consider if we want to upload the app using my personal Google account or make one for LiveSpot.

John Ingwersen: Tying the rest of the app together.

Riley Snyder: None.

Mason Schreck: Designing the website.

### Individual Contributions:

Name	Individual Contributions	Hours This Week	Hours Cumulative
Donavan Brooks	Finally finished bounding box creator. Updated Wiki Page	6	116
Derrick Lockwood	Finished Heuristics, Started Early Stopping	16	144
Joseph Krajcir	React Native Android wiki. Researched publishing and deploying app.	7	114
John Ingwersen	Firebase and Deployment	8	115
Riley Snyder	Installation Scripts Done. WikiPage.	10	117
Mason Schreck	Finished async updates of spots began modularizing components	21	119

### Comments and extended discussion:

### Plan for coming week:

Donavan Brooks:

Derrick Lockwood: Looking into configuration for model. Finish up early stopping and train on entire dataset.

Joseph Krajcir: Finalize app. Help finish other tasks that need to be done before release.

John Ingwersen: Finalize app and deployment procedures

Riley Snyder: Learn how post processing works and write script for install of dependencies.

Mason Schreck: Design the website to be glorious.

**Summary of weekly advisor meeting:**