

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: Worked on real-time prediction of images using pre-trained models. We also met as a group to discuss camera solutions.
Derrick Lockwood: Worked on documentation to build tensorflow from sources for GPU support.
Joseph Krajcir: Finished the basic functionality of the React Native app that allows you select a parking lot and display parking information.
John Ingwersen: Continued development with React Native for cross platform application.
Riley Snyder: Worked through issues in image splitting. Continuing to change this to match the rest of the project.
Mason Schreck: Finished error reporting and uptime checks from the Raspberry Pi. Created a merge request for logging and uptime checks.

Pending Issues:

Donavan Brooks: Compiling Tensorflow to be used with GPU. As well as work on real-time predictions using the trained model that we are developing
Derrick Lockwood: Lots of issues with compiling sources of tensorflow. It is unknown if it will be able to compile on our redhat server due to the GPU Compute Capability on the device.
Joseph Krajcir: Change app code from using Firebase's Realtime Database to Firebase's Cloud Firestore.
John Ingwersen: A good template application using React Native and firebase and the correct layout and colorscheme.
Riley Snyder: Changing image splitting over to use new database.
Mason Schreck: Change the error logging in Firebase to use Firestore. Incorporate logging Firebase connectivity issues to our campus server.

Individual Contributions:

Name	Individual Contributions	Hours This Week	Hours Cumulative
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Donavan Brooks	Began working on real-time predictions using pre-trained models.	6	43
Derrick Lockwood	Documentation on build of tensorflow	8	63
Joseph Krajcir	Finished basic functionality of app	6	33
John Ingwersen	Mobile development	7	35
Riley Snyder	Fixing image split issues.	6	37
Mason Schreck	Finished error reporting and logging functionality for pre-processing device	7	33

Comments and extended discussion:

Plan for coming week:

Donavan Brooks: Compile Tensorflow on my PC and run a training session using the GPU. Use this model to work on predictions.

Derrick Lockwood: Continue to try and compile Tensorflow with sources. Start on optimization of model.

Joseph Krajcir: Read up on Firebase's Cloud Firestore and continue adding to the app. Possibly look into displaying parking lot 7 pdf with an overlay.

John Ingwersen: Finish template application with appropriate layout and ISU colors

Riley Snyder: Finalize and merge image splitting/moving branches.

Mason Schreck: Tie together image splitting and uptime checks in multithreaded pre-processing cli. Create/design screen mockups and outline mobile application in React Native.

Summary of weekly advisor meeting:

No advisor meeting this week.