

EE/CprE/SE 491 WEEKLY REPORT 07

Availability Prediction Based on Multi-Context Data

Week 7 Report

10/24/18-10/31/18

sdmay19-33

Client & Advisor: Goce Trajcevski

Team Members:

Justice Wright: Report Facilitator

Shane Impola: Scribe

Noah Chicchelly: Meetings and Communications Facilitator

Nick Schmidt: Software Systems Engineer

Tristan Anderson: Network Systems Engineer

Brendon McGehee: Hardware Systems Engineer

Weekly Summary

This was a heavily networking focused week. Much work was done to ensure the backend was ready to house and transport data as necessary, configuring our hub to conform the data to the expected standard, and outline protocol for data transmission. This meant close discussions between the hardware and networking teams. Meanwhile the frontend (software) team took time to research wireless networking to improve this process going forward, as well as continued work on the overall functionality of the application.

Past Week Accomplishments

Sensor data transfer - Brendon

- Worked on sensor data transfer for hardware component to networking component
- Executed minimal testing for hardware component to determine reliability and usability

Data formatting and transfer - Justice

- Worked with Networking team to determine what format/values they are expecting for data transmission
- Configured Pi to transmute data into desired format for transmission

Establish server compatibility - Noah, Shane

- Continue back end code to get communication and basic queries working
- Further extend number, and type of queries needed/possible for our current architecture.

Work with Flutter - Nick

- Continue research and testing with Flutter app.
- Researched solutions for data analytics.

Continued research on wireless network - Tristan

- Understanding use of our selected transceivers.
- Discovering solutions for utilizing those transceivers with the Raspberry Pi rather than Arduino.

Hours Report

<i>Team Member</i>	<i>Weekly Hours</i>	<i>Total Hours</i>
Justice Wright	5	33
Shane Impola	3	34
Noah Chicchelly	5	35
Nick Schmidt	3	34
Tristan Anderson	5	35
Brendon McGehee	6	38

Upcoming Week

Brendon

- Continue to research implementation of hardware component into a PCB and enclosure
- Research final demo design and implementation
- Send out order for hardware needed for final demo

Justice

- Work with Tristan on outlining future steps to improving local networking
- Prepare setup for final demo filming

Noah

- Research compatibility of server with front end
- Ready server with proper infrastructure to support our project.

Shane

- Continue to develop server testing tools
- Continue to improve server architecture

Nick

- Continue to work with Flutter app
- Continue to research potential solutions to analytics

Tristan

- Implementation of transceivers with Raspberry Pi
- Continued work on the front-end application

