

## *EE/CprE/SE 492 WEEKLY REPORT 2*

### *Availability Prediction Based on Multi-Context Data*

#### *Week 2 Report*

2/10/19-2/16/19

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*

The second week of development marked a close return to form from last semester. Everyone is now up to full development speed again and progress is flowing. Members continued research into the biggest blackbox we have left, algorithm design, our backend continued to shore up issues as well as expanding functionality, and our hardware design nears its final draft.

#### *Past Week Accomplishments*

Start PCB Design- Brendon

- Chose an enclosure for PCB
- Started creating schematic and layout for PCB
- Started working on bill of materials to estimate overall price

Data Analytics Research - Justice

- Researched large data prediction algorithms. Began sketch work for algo design based on currently available sensors.

Communication & Server - Shane

- Fixed the longstanding server-client communication issue, started working on server endpoint functionality

Backend Development - Noah

- Overhauled, and completed backend and got it up to par with all our needs

Algorithm Development - Nick

- Researched solutions to the seating wait time algorithm.

## nRF Library Work - Tristan

- Began expanding functionality of the standard nRF transceiver library.

### *Hours Report*

<i>Team Member</i>	<i>Weekly Hours</i>	<i>Total Hours</i>
Justice Wright	5	9
Shane Impola	6	11
Noah Chicchelly	6	11
Nick Schmidt	4	8
Tristan Anderson	4	9
Brendon McGehee	5	10

### *Upcoming Week*

#### **Shane**

- Finish server endpoints, start improving functionality, efficiency, add features

#### **Noah**

- Work on algorithm with Nick, continue expanding knowledge of AWS features.

#### **Nick**

- Work on algorithm and getting test data into the database. Begin connecting app GUI to server.

#### **Justice**

- Assist in review of final board design.
- Try to work out “answers” for a dummy set of data to compare our eventual algorithm to. Compare notes with Nick.

#### **Brendon**

- Complete PCB design for table and seat board
- Complete bill of materials to have order approved
- Send out order for bill of materials and circuit boards

## **Tristan**

- Continue rewriting library.
- Begin work on communication between R PI and already connected arduino boards.