

Bi-weekly Status Report #1

sddec20_05

Summary

In the first two weeks of CprE 491, we received our project assignment (An Advanced Networking Outreach Activity for Kids) and began forming our vision for the project. During the first week, we held several free-form discussions about our prior experiences, what technologies we would use, and what technical roles we would assume. In the second week, we met with our advisor, Dr. Tom Daniels, who gave us his rough ideas for the project. We have started to research our anticipated areas of focus for the project.

Individual Contributions

Grayson Cox

Hours worked: 12

Outside of our group meetings, I spent a number of hours practicing and getting better acquainted with Angular, with which we're planning to develop our GUI component. I have little experience with web development, so I've used this time to familiarize myself with Typescript and to learn about relevant design conventions. Aside from that, I coordinated our first meeting with Dr. Daniels.

Austin Dvorak

Hours worked: 12

I met several times with Ross and Grayson on 1/23 to talk about what types of technologies would be required to implement the project. This included the hardware (Raspberry pi's were discussed) and the types of software (linux distro and packages). On 1/28, we met with Dr. Daniels to discuss the project in further detail with him and what he was expecting. Outside of group meetings, I researched mesh networking implementations, what types of packages would be required, and linux distributions that include Raspberry Pi network routing distributions.

Ryan Newell

Hours worked: 12

During the first two weeks, I met with my team members to explore our project and what the requirements are. As a team, we met with Dr. Daniels on 1/28 to get his perspective on the project and what he envisions it being. Outside of group meetings I looked into different

technologies that could support a mesh network and fit our requirements. I also started to look into batteries and other hardware/materials we will be needing.

Spencer Parry

Hours Worked: 12

I met with many of the other group members throughout the week to discuss possible implementation plans, technologies we want to use, and the project in general. We decided that for the user interface, an Angular/NodeJS setup would probably be a good place to start. I've spent a lot of my time doing some more research on Angular and Node, as well as working with Greyson on getting some details together on how we want to create the GUI. We also met with Dr. Daniels on January 28th to get some requirements and a general overview of the project.

Ross Thedens

Hours worked: 12

I met several times with other group members to discuss the project overall. On Jan. 23, I talked with Austin and Grayson about potential implementation technologies for the project. We discussed the possibility of using Raspberry Pis and other boards, as well as TCP/UDP for transferring data. We determined that my primary technical task would be to work on socket-based networking for the project. On Jan. 28, we met with Dr. Daniels (our advisor) and discussed the project with him. During this meeting, I took detailed notes on his vision of the project. Besides this, I have started looking into socket programming in C, which I will use in the project. I also reviewed some Linux/bash command line basics, which I will rely on when using the network node devices for the project (most likely Raspberry Pis).

Pending Issues

We have no pending issues at this time.

Plans

We plan to meet with Dr. Daniels next Tuesday to discuss our conceptual design and figure out our next steps from there. We will also begin documenting the project's planned features in anticipation of our first design document assignment.