

EE/CprE/SE 492 STATUS REPORT

Start Date – End Date: 12/20/2024 - 1/30/2025

Group number: sdmay25-18

Project title: Weather Triggered Wireless Telemetry System

Client &/Advisor: Daji Qiao and Sarath Babu

Team Members/Role:

1. **Alex Chambers:** Individual Component Designer
2. **Alexander Christie:** Client Interaction
3. **Adam Fields:** Data Formatting
4. **Nisha Raj:** Team Lead
5. **Aidan Gull:** Component Integration
6. **Colin Kempf:** Documentation

Summary

During this period of time, our group returned from break and began to dissect our next steps towards completing the project. We looked at what areas needed the most immediate work and which parts of the project were the most important. We decided to assign these different tasks to different people with the understanding that the assignments were guidelines that may need to change later. We met with our advisor and client to go over our plans and get advice from them about how to move forwards. Additionally this week we made efforts to get ourselves set up with our existing code and progress made on the project. This included getting our code properly set up on our git repository and restarting our data gathering scripts from the previous semester.

Accomplishments

- **Laying Semester Groundwork**
 - Used documentation and charts from last semester to determine the need-to-dos for the coming semester
 - Broke down these tasks to specific team members to take ownership of
- **Code Setup**
 - Moved our prototype code from last semester onto the official GitHub repository for our group
- **Begin Collecting Data**
 - Restarted our existing code to begin collecting data again
 - Gathered data will be useful for testing and understanding data analytics later
 - Started to look at using existing code to gather different weather features

Pending issues

- No current issues at this time

Individual contributions

<u>NAME</u>	<u>Individual Contributions</u>	<u>Contributed Hours</u>	<u>HOURS cumulative</u>
Nisha Raj	- Worked with team to break down tasks in more defined components - Helped update Gantt chart to match broken down tasks	6	70
Alexander Christie	- Determined with team division of tasks for the semester - Helped develop Gantt chart for semester plan	6	70
Aidan Gull	- Worked with team members to divide tasks that each member will work on for the semester	6	70
Colin Kempf	- Helped break down different tasks for the group to focus on beginning this semester - Begun working on creating scripts to collect live ARA weather data - Met with advisor and client to approve plans	6	70
Alex Chambers	- Worked with team to plan/divide tasks for the upcoming semester - Began working on scripts to collect ARA weather data	6	72
Adam Fields	- Worked with team to plan and divide up tasks for the upcoming semester	6	70

Current Plans

- **Begin Gathering Precipitation Data**
 - Modify existing API prediction gathering code to begin collecting data for precipitation statistics
- **Create Code to Collect Live Weather Data**
 - Using ARA systems, inform their live collections to begin gathering data
 - The starting and stopping of collection will be informed from the collected predicted API data
 - Initially this will be imputed manually for testing purposes
 - An algorithm will be needed for the gathered data to weight the different measured features and determine what more strongly correlates to a potential weather events
 - In the future this will need the planned feedback loops and the checks for false positives and false negatives

Summary of advisor meetings

Between reports our group has met with our advisor and client twice. The first of these

meetings was on 1/24. This first meeting was just to check in with them coming back from break. We talked about our plans for this semester and the deadlines they were expecting us to meet. We also talked about our expectations for the next meeting, in which they wanted us to break down what parts of the project each of us would be planning to accomplish. The second meeting was on 1/29.