

I learned a lot over the course of this senior design project and grew in my abilities as a developer. My team was successful in creating a web application that analyzed and displayed the public opinion of a word or phrase using twitter data and google ratings. My individual contributions to the project were setting up the front-end to allow a user to enter in a keyword then taking that keyword and using it to call the Twitter API to receive tweets with that keyword. I also set up the Sentiment Analysis API to run analysis on the returned twitter data and used these results to create two front-end data visualizations: a pie chart, and a word cloud. I did not have much part in the Google API portion of our project, but I helped with debugging and integration for that component.

In my initial assessment in the fall, I identified that I had skills in front-end web development and team management that I intended to utilize, and I identified that I hoped to learn more about data visualization and APIs. I used my web development skills to help our team set up the project and integrate things together. I was able to do this because I had a strong grasp on React from previous Co-Ops. I built upon this skill by learning how to create a React project from the ground up, which I had never had to do before. I also expanded my skills in data visualization by learning how to work with D3 and built upon my knowledge of APIs through integrating together the Twitter and Sentiment APIs and setting them up to work in React. An obstacle that I faced individually was the CORS policy blocking the Twitter API in our web application. Through doing research into how to solve this problem I learned about web development best practices and was able to fix the challenge by setting up a proxy server to handle the requests.

Our group was able to successfully work together to create a functioning application that achieved our original goals. We faced some challenges along the way with the direction of our project and were able to work together to find alternative solutions that would still achieve our goals. One thing

that I learned about group work is that constant communication is important. Our team would struggle the most when we would forget to communicate something to all the group members, and we would be off on different pages. An aspect of teamwork that was successful in our group was idea sharing and support. Halfway through our project we found a blocker from the Twitter API that kept us from doing what we originally planned. However, we were able to openly share new ideas and came together to find a new solution. We would also be active in sharing our issues and bugs and supporting each other in fixing them.

Everyone in our group participated in the project and had equal effort in getting the project done. We each came in with various levels of experience and knowledge with web development so some people on our team were able to contribute more but everyone worked hard to learn what they needed for their tasks. I had more experience, so I was able to contribute a lot more to our project, but everyone put in a lot of effort to learn and contribute to the project. We split our team into two subgroups to complete the work for the project. One group did all the work of researching and implementing the Google API and ratings. And the other group, that I was apart of, worked on the Twitter and Sentiment APIs and creating the data visualizations. Each person in our group was reliable, showed up to meetings and completed their work.