

Bridget Hoernschemeyer

Spring Individual Assessment

My contribution to this project was mainly the local data management and some of the design aspects. The fall semester was focused on research and planning, though we did start developing the basic app to get a head start. Spring semester is when the bulk of the work was completed. My strengths tend to be a bit more artistic, so I was happy I was able to create the logo and the poster for expo. This project allowed me to experience how design, which is most of my background, is important to creating an application that users would find visually appealing and easy to understand.

I did learn a lot about application development, which I did not work with before this project. This was something I had mentioned in the initial assessment during fall semester and I was excited to get experience with. I was able to work on the data storage, which we decided would be local for simplicity and ease. I created a local database to store generated paths and their original uploaded images and the user profile data was also stored locally. It was interesting to learn about how a database can be made locally rather than hosted. I was not able to do as much as I had originally planned with the pathfinding and testing since I had a lot of trouble with the Android emulators on my machines. However, I did have a lot of fun working on this project and it was very fulfilling to see a final, working application.

Our final project was a working application that allowed a user to upload or capture images of a bouldering wall, assign difficulties and start/end holds, and then generate an optimal pathway. The pathfinding algorithm utilized the user's height and wingspan saved in the profile page to determine moves. The final path was displayed to the user by clicking through the steps one at a time or by viewing the full path on the image with color-coded limbs. We were able to include the features and functionality that we had originally planned in the fall semester.

My original role in the group was not really defined since this was something that was changing week to week. However, I did originally plan to work on the pathfinding algorithm a bit. Due to my emulator obstacles and lack of knowledge regarding bouldering and the correct moves to make, I did not help with this part of the project. Ethan Reed was our team leader and the boulderer, so he worked on this part of the project. I believe he deserves special recognition for his work as it was the most crucial and difficult aspect. He was able to use his domain knowledge of bouldering and apply it to the pathfinding algorithm.