

Part A

For this project I worked mainly on the UI design for the Hackademia website as well as handling a lot of the project management tasks such as taking the lead on weekly senior design assignments and the expo poster. During the Fall semester after identifying that my skill set lies mainly within database and UI design as well as project management which I was able to apply those skills a lot more during the spring semester. I was definitely able to build upon the UI skills in particular because I got to work with the design and development aspects which was great because I had some prior experience with react but not a ton so I was able to use what I knew but also immensely expand upon those skills. With the master student coming into the project he ended up taking on more of the database side than we originally had thought so I did switch off of that and didn't get to develop as many of those skills but that was okay because it allowed me to focus on helping to build out the UI components.

I did a lot of the group assignments for senior design to help us get started on those and stay on track for the semester. I also worked heavily on the dynamic call stack UI design and development. Mostly with figuring out how we wanted to change the current layout to make it look more modern and user friendly. A large part of the semester was getting the frontend to properly communicate with the backend and actually dynamically pulling the dumped assembly code to output properly to the stack and registers with the animation. Beforehand everything we were given was hardcoded including the general layout so we updated that to change it to be dynamic and create a more relevant UI that matched the intent of the website. I also added a lot of error handling including popups to show when different operands or instructions weren't supported. I mainly gained a more in depth knowledge of react and how it works within a larger application, as well as the use cases and limitations. More soft skill wise definitely continued to improve task prioritization and time management skills. Also got to use my love for design to work on the expo poster which was very fun.

Some successes included getting all the error handling updated and processed, testing out the original test case we created to see what we were still missing, creating the senior design poster and seeing how amazing it turned out, looking back at the old UI compared to the newest version and seeing the amazing progress between the new. Overall greatest success was just being able to see the working product and recognize how much progress we made. Biggest challenge honestly was dealing with merge requests and conflicts. It was stressful because we typically were working on the same files or at least related ones so we had to be very careful with pull requests and keeping our codebases up to date. Making sure we were committing small amounts more often to keep everyone updated and try to minimize conflicts. The project structure is also pretty sensitive and has a lot of dependencies so keeping up with those was a challenge.