Individual Capstone Assignment

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I believe all of my curriculum at UC whether it was required or an elective, has taught me something that will aid in my future. Specifically, for this class there are a few classes I feel that will help me our senior design project. One of them being Requirements Engineering taught by Nan Niu. I feel that this class will better help me in creating requirements for the project and better track our progress throughout the semester. Classes such as Python Programming, Data Structures and Artificial Intelligence have given me strong technical knowledge that will help me in building our project. Also, for our specific project, I believe taking even the introductory CS, Math and Science classes will help build perspective in how we want to create our application.

I have worked for GE Aviation – Digital for all of my co-op rotations. I have served as a Front-End Developer, LEAN Specialist, Product Owner and Project Manager. When working as a Front-End Developer, I learned many new environments and was able to directly work with Javascript, Vue,js. HTML and CSS. While as a LEAN Specialist, I learned all about the LEAN procedures and how to make procedures at GE more LEAN friendly. I served as the Product Owner for a technical product and learn a lot more about creating requirements and work directly with a team. Finally, in my past rotation I was a Project Manager, I learned a lot about organization, how to lead a team and take a product that does not exist and create a real tool. Overall, I believe my co-op rotations have given me a plethora of skills. From hard technical skills to management and organization skills, the lessons learned on co-op have really changed my perspective as a student and I know will help me in this project.

Our Senior Design Project overall has the goal of aiding professors in creating their block exams. Our team, Hepatic Heroes, had the goal of making some sort of impact at our university and that is how we brainstormed this idea. The tool would randomly generate slight changes in the generalized question the professor wanted to ask. For example, it would change the numbers for a math exam. After the exam is taken, we want to create a mobile application that could scan the barcode on an exam that would generate the solution set needed for that specific exam. A web application would also be tied to this project where the user could create a bank of questions that would allow the software to make variations of it. The software would have the general idea of what the question as, as inputted by the user to create the different exam and a specialized barcode for each exam.

As stated above, I really wanted to work on a project that I knew would better the student and professor experience after I left. This project intrigued me because it would not only allow the student to get their tests graded pretty quickly but it would take time off of what the professor needed to spend grading hundreds of exams. Right now, I personally in getting familiarized with React, a tool I have never used that will aid in our UI work. Our approach is to define a current subject/ course to specialize this project on to ensure it works, and then make it easy to set up for other subjects in the future. By narrowing our scope, we will be able to ensure less errors. I am very excited to see where this project goes because as a student this would have been very helpful. It would have allowed professors to share past exams knowing that students would not get the same questions but still allow them to prepare. As time continues, I think we will have a better idea of division of work in our group.

By the end of the year, my first expectation would be a completed that project that is at least specialized to aid in a specific department. Another expectation would be clear data and examples of exams to be able to showcase as the completion of our project. I would hope that our original worked with no significant changes needed but, at the end my main goal is that we have a tool that will help both students and professors. I will evaluate myself by tracking my personal progress on our project. This can be measured through completed user stories we make as a team and how many I was able to personally complete. I will also measure my progress through how we progress in the project, and how we are communicating as a group. I am very excited for this project and cannot wait to get started!