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Senior Design

Individual Capstone Assessment

9/12/2022

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My senior project accomplishes two things for me as a student. Primarily, this project is an opportunity for me to practice concepts of human-centered design in an academic setting. The University of Cincinnati has very limited options for HCI classes, so I am excited to learn concepts that I couldn’t otherwise. Secondly, my project allows me to give back to a community on campus that has given me so much. By doing a project that impacts the UC Esports community, I can prove that university support in esports has an academic benefit as well as recreational. Both factors are exactly what I was looking for in a senior design project, and I am designing the project to maximize the benefit in both directions.

My academic experience won’t guide the development of the project nearly as much as my co-op experience, but there are a few classes that will have an impact on my project. Firstly, CS 5168 User Interface 1 is one of the only human-centered design classes offered by CEAS. This class is helping to build my understanding design procedures and how my design choices effect my work. Additionally, my advisor for the project is my professor for that class. The other class that will guide my project is IDT 4150 Educational Game Design. Because of the limited class offerings within CEAS that fit my interests, I had to look to CECH. Educational Game Design helps me think about how to think about video games from an outside perspective. The focus of the class is on the educational aspect of games, even those that weren’t designed to be educational. Because my project involves the analysis of commercial games, I will be able to move my perspective on the game to an educational view.

My co-op experience has given me significantly more opportunities to work on front-end projects. With my first two rotations as an IT co-op at UC’s Office of Research, I gained experience with javascript, css, and html working on front-end web development. However, my third rotation gave me more of the experience that will help me in this project. I worked primarily on data visualization using Power BI and Tableau to visualize the responses for internal surveys and equipment management. At my final two rotations as a software co-op at KLH engineers, I continued doing more web development, while adding in aspects of user interface design and database management. All my work at KLH will lend a hand with creating visualizations for my senior project.

I am excited to take on this project because if everything goes well, I will have a final product that I can leave for UC Esports to use for their benefit. Additionally, even after the project is “finished” there will still be opportunities to build on for the future. Because CEAS’s curriculum is not very project focused, I am also excited to have something to put in my portfolio that I can be proud of. Our preliminary design strategy involves a lot of prior research on solutions and technologies that we have little to no experience with. Because we are doing a data visualization project, we must use our time wisely. We need to have enough time to create our data-tracking tool first, then use the tool to gather data. The final part of the project is the visualization itself, which will be a project all on its own.

Our expected result for this project is to have a tool that can be used to collect data for a specific game. Additionally, we would like to have a medium to ingest the data that has been collected and create a helpful visualization from it. I will self-asses for this project by creating weekly progress reports for myself to show what I have done and what I have learned. I will document the process in my portfolio, highlighting my individual contributions so I can hold myself accountable. I will know that the project is done when two things are complete. The project will not be finished unless I have a data-collection tool that has been used and tested by a community in UC Esports. Another project requirement is that I have accurately and completely documented our design process in my portfolio. I would also like to have a working visualization of our collected data, but as long as we have a proof of concept I will be happy.