The senior design project will focus on upgrading Midea's web scrapers. The goal is to enhance the existing scrapers by developing two user interfaces: one for end-users to easily scrape product data, and another for developers to manage and update the scraper’s hardcoded components. This will make the tool more user-friendly and adaptable to changes from scraped websites. Overall, this practical project will improve my technical skills I’ve gained from co-op experiences and academic knowledge.

First course that came to mind was the Software Engineering (EECE3093C). I gained a deeper understanding of the formal documents needed and the methodologies such as Scrum and Agile development which are popular in most tech industries. Courses like Artificial Intelligence (CS4033) and Database Design (CS4092) will help structure this web application project’s data storage and potentially more advanced features using AI. Other curriculums such as Programming Languages (CS3003), Data Structures (CS2028C), and Computer Networks (CS4065) will all play a role in the overall structure of this project.

Out of the five co-op rotations, last three of them were at the same company called ITI in Milford, OH as a software engineer. I worked mainly in the back end in an agile environment. Weekly stand ups meetings to discuss new footprints and code freezes. The software consists of Python, C++, and Java, and I mainly focused on Python and C++. Some technical skills acquired were mainly programming skills and agile environment. The other two rotations were all EEPs, and I mainly completed some certificates and a game development project along with a mentor. Non-technical skills acquired throughout this college experience are critical thinking, time management, and communication.

My motivation behind this project is being able to use my technical skills and academic knowledge to improve a piece of feature that will be used in the real-world scenario. It’s also exciting that this project is getting sponsored by Midea as its rare opportunity and gives it that extra motivation behind it. My first step would be to identify the existing issues that the web scrapper is having and plan out the approach from there. My expected results of this project will be a functional web application that is user-friendly.

Throughout my game development project, I posted weekly updates of what have been completed, what still needs work on, and what to be expected next week in a document that is shared with the mentor. I believe I can evaluate my contribution by sending weekly updates of what has been implemented and what needs to be worked on next to my team members. The functionality and feedback of this web application will determine whether I have done a satisfactory job or not.