Bryce Cooperkawa

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EDUCATION AND AREAS OF STUDY

Michigan State University, College of Engineering – East Lansing MI May 2024
Bachelor of Computer Science, Minor in Business **GPA: 3.56/4.00**

- Received Honors Excellence Scholarship and achieved Dean's List in four semesters

CSE 498 - Collaborative Design

- Developed an Augmented Reality iOS application for Volkswagen utilizing the Xcode IDE, coding in Swift and utilizing the SDK's: ARKit, RealityKit and SceneKit, with a backend consisting of an web based admin console, mySQL database, AWS Lambda API's and a S3 bucket.
- Worked as a team of five, interacted with Volkswagen representatives to define requirements, presented progress, received feedback on implementation, and incorporated guidance to improve our project.
- Created a presentation video representing an overview, outlining the application's value and demonstrating how it solved for a variety of use cases.
- Held a table at MSU's College of Engineering Design Day, the team presented to judges, performed live software demonstrations leading to an invitation for our team to go onsite at VW Auburn Hills location, presenting in person to Volkswagen leadership and development teams.

CSE 335 - Software Development

- Utilized Unified Modeling Language and software design principles in various projects throughout the semester to provide a visual representation of software classes, connections, variables and functions.
- Developed in CLion and C++ to create multiple projects that demonstrated object oriented programming concepts such as, polymorphism, abstraction, inheritance, and patterns. The projects included: Aquarium, Animation & Time, Patterns, Canadian Experience, Sparty Gnome and Frankenstein's Lab.
- Learned WxWidgets to create comprehensive UI and menus for software projects, learned XML to save, store, and load states of systems.
- Finalized understanding of concepts in a "Sparty Gnome" project that acted as a culmination of all concepts learned throughout the semester.

CSE 435 - Software Engineering

- Gained first hand experience with the software engineering process through the development of a traffic jam assist system for a vehicle.
- Gathered requirements for the TJA system and interviewed clients in the automotive industry to better understand how the system would function in certain situations.
- Learned about various diagrams, use case, state, and sequence and utilized each with the TJA system to demonstrate what constraints, conditions, when and how the system would function.
- Compiled all information gathered about the TJA system into a software requirements specification document that provided all necessary information about the system.
- Presented the SRS document and a prototype demonstrating how the system functioned in different circumstances to instructors and clients.

CSE 476 - Mobile App Development

- Utilized Java and Android Studio to develop mobile applications for phone and tablets, demonstrating mobile development concepts such as layouts and constraints.
- Worked in a group environment to develop a Connect 4 application that used php files and a sql database allowing users to play one another from different devices.

CSE 331 - Algorithms and Data Structures

- Learned time complexity and its importance in large software systems, applying this knowledge to search and sort algorithms to meet required time complexities in software solutions.
- Built and utilized data structures such as linked lists, trees, heaps and graphs for more efficient data storage and retrieval.

EXPERIENCE

Miller's Ale House – Aurora, IL June 2020-August 2023
Server

- Demonstrated versatility, working as and training new team members in bussing, serving, and hosting.
- Exhibited exemplary organization, communication, and conflict resolution skills, ensuring exceptional customer service.
- Fostered solid and professional relationships across all hierarchical levels, consistently surpassing expectations and obligations.