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CS-499

Professional Self-Assessment

During my Computer Science program, I have learned multiple languages, computer science best practices, skills, and techniques, as well as the ability to communicate and collaborate with others in the tech industry. My ePortfolio shows my strengths in software engineering and design, which are fundamental to becoming more employable in the tech industry. In CS-465, I learned and gained experience creating a full-stack web application, which developed my skills in backend and frontend development as well as development with APIs and databases. In CS-360, I learned and gained experience in mobile development. The final project for that class was to create an event tracking mobile app that could record, track, and delete events and notify users of upcoming events. Several classes developed my skills in communication and collaboration. I learned how to use Bitbucket and Eclipse to collaborate with other developers, perform code reviews, and safely work on branches that would later be merged. In similar classes, I learned the importance of security and learned how to identify, mitigate, and fix security risks, especially when coding. In several classes, like CS-319, I learned how to design and propose plans for projects to stakeholders and team leaders. I made wireframes, documented use cases, and proposed a development plan that would align with the clients' or stakeholders' vision. These skills I've developed over the program have culminated in a portfolio of work that showcases my skills in Computer Science.

For the software design and engineering enhancement, the CS-320 artifact was enhanced. It was originally a Java project, and it was converted into the C++ language. The conversion of a project into another coding language demonstrates the ability to solve a problem using computer science practices and standards, while managing any trade-offs. By recreating a project in another language, it also demonstrates the ability to use well-rounded techniques and skills. It shows the ability and skills necessary to code in both Java and C++, and it also shows the ability to deliver professional and technically sound communications in the form of comments and narratives.

For the algorithms and data structure enhancement, as well as the databases enhancement, the artifact from IT-145 was chosen. This artifact was incredibly simple, with two Java files defining a Pet and a Cat class. The enhancement created a full-stack web application with a working database of pets. It demonstrates the ability to employ strategies for building collaborative environments, the ability to deliver professional quality communications, design and deliver security of data and resources, as well as the ability to use well-rounded and innovative techniques and skills. This enhancement used several packages, as well as an extensive use of TypeScript and JavaScript. The database used was MongoDB, Postman was used to manage the API, and SPA was used to handle the security portion of this enhancement.