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Throughout my time in the computer science program the coursework I have completed, and working on the ePortfolio has been able to craft my technical capabilities and where I will fit professionally. When I first entered the program all my experience was limited to personal exploration and end user based. Over time as we completed complex projects and used iterative development and refinement, I was able to gain understanding of many computer science principles and apply them in real world environments. This capstone is the culmination of that knowledge and growth. It demonstrates my ability to design, evaluate, and communicate different computing solutions. During this I also have learned the importance of focusing on security, collaboration and maintaining professional standards.

A strength that has been developed in this program would be the ability to collaborate effectively, especially on team-oriented projects and projects controlled and dictated by outside stakeholders. I have done activities such as code reviews, using peer feedback, and iterative development, and with these learned the importance of a collaborative environment to improve both decision making and overall code quality. The informal code review demonstrated my ability to explain existing code functionality, identify the areas that need the most improvement, and justify the decisions to make enhancements. I was able to do this is a way where both technical and non-technical audiences could understand. This will be an important skill when needing to communicate any design trade-offs, ensure that we are aligning decisions with project goals, and making decisions as a team.

The coursework did a lot to strengthen the understanding I have of data structures, algorithms, and effective problem-solving strategies. I didn't focus solely on implementation, but I had to look to evaluating algorithmic efficiency, manage trade-offs between how complex a design could be versus the performance desired, and using the appropriate data structure to solve the problem. This can be seen in my work with algorithm-driven systems, where I needed to analyze different outcomes, refine the logic, and tune parameters to achieve the desired outcome. The experience I had showed the importance of iterative testing and evidence-based decision making.

I also developed skills in software engineering and database design. Through different courses I worked with modular architectures, full-stack development patterns,

and persistent data storage solutions. I had hands on experience implementing CRUD functionality, using MVC and integrating databases into functional software systems. I have a better understanding of how professional quality software is built and maintained, through clarity of design, scalability, and maintainability.

My experience in the program also drilled in how important having a security mindset is. In many of my courses I needed to anticipate potential vulnerabilities while designing the work. User information is critical to protect, and I needed to use secure coding practices. It didn't matter whether I was working with authentication mechanisms, algorithm driven systems, or database access, I had to look at how different exploits could impact the information and how I could minimize the risks before they occurred. I now understand how important it is to design systems that consider security and ethical implications before, during, and after release. This will ensure resiliency and trust, which can be just as important as system functionality.

The artifacts included in this ePortfolio demonstrate how far my computer science skillset has come. Each artifact shows a different specialization, such ass software design and engineering, algorithms and data structures, or databases. It shows competencies in these areas as well communication, collaboration, and security. The enhancements that were made to the artifacts show measurable growth in each area. Together they show how small induvial concepts can come together to a cohesive real-world solution.

As I approach the end of my time in the computer science program, I feel well prepared for the transition into a role that would require analytical thinking, technical adaptability, and collaborative problem solving. Completing the capstone has given me one more opportunity to solidify my commitment to lifelong learning and growth. The ePortfolio not only demonstrates what I have learned, but how I apply that knowledge to consistently deliver value. As I move on, I am confident in my ability to work alongside software development teams and contribute high value work.