Throughout my computer science program, I have developed a well-rounded and practical understanding of software engineering, data structures, algorithms, databases, and cybersecurity. These technical skills, combined with my experiences in collaboration, communication, and problem-solving, have prepared me to contribute effectively in a professional environment. Additionally, the process of developing my ePortfolio has allowed me to showcase my strengths, refine my professional goals, and present a cohesive demonstration of my abilities to potential employers.

In Software Development Lifecycle (SDLC) CS 250, I learned how to navigate the complexities of software design while balancing the needs of multiple stakeholders. This course reinforced the importance of security at every stage of development, emphasizing that security should be an integral part of the process rather than an afterthought. Building on this foundation, Software Security CS 305 provided hands-on experience with industry-standard tools and methodologies for evaluating software vulnerabilities, strengthening my ability to assess and mitigate security risks, an essential skill in today’s technology landscape.

From a technical standpoint, Data Structures and Algorithms CS 260 was instrumental in teaching me how to optimize code efficiency and make data-driven decisions when designing software. These problem-solving skills were further refined in Full Stack Development I CS 465, where I worked on database management and backend development, applying normalization techniques and addressing real-world challenges related to structured data. This course also exposed me to full-stack development principles, giving me hands-on experience with frontend and backend integration.

Beyond the classroom, I have worked on collaborative projects that required effective communication with both technical and non-technical stakeholders. These experiences have strengthened my ability to work in team environments, break down complex technical concepts for diverse audiences, and contribute to agile development workflows.

To showcase the culmination of my education, I have assembled three artifacts that highlight my expertise in software design and engineering, algorithms and data structures, and databases. All of these artifacts are based on my final project from Full Stack Development I CS 465, a full-stack web application that utilizes AngularJS for the admin portal, ExpressJS for the web and backend server, and MongoDB as the database. Since this project encompasses multiple core areas of computer science, I chose to enhance and expand upon it to demonstrate my end-to-end understanding of software engineering and development.

These artifacts collectively illustrate my ability to design and develop efficient, scalable, and secure applications. By refining and expanding on this project, I have not only strengthened my technical skills but also reinforced my ability to analyze complex problems, implement optimized solutions, and effectively communicate my work. My ePortfolio serves as a comprehensive reflection of my growth as a computer scientist and positions me to enter the field with confidence.