**Professional Summary**

This course has highlighted for me the growth I have had as a computer science professional from the start of my studies to now. The artifacts that were chosen for evaluation in the ePortfolio demonstrate significant growth from the time they were created earlier in my program to my understanding of those same concepts today. I have a greater understanding of code structure and design and how those concepts inform security within an application. During those courses I was mostly concerned with learning how to write the code. As I’ve grown across the program, I better understand that there are industry standards and best practices that should inform the way code is written. Even if a program executes and is syntactically correct, it might not be optimized for performance or security. Those concepts have to be addressed in the real-world. This course helped me see that growth.

During my first coding course, I was to develop a program in Java. I had no background in programming and quickly became overwhelmed. This course stretched me and took my out of my comfort zone because I was forced to reach out for help. With the help of my professor and my classmates, I was able to work through my frustration and confusion and successfully complete the class. It was one of the most rewarding courses of my program because I nearly gave up during that course, but the team work we all demonstrated working through the issues and coming up with solutions helped confirm that I was where I needed to be in a professional program.

In that same course, I was in regular communication with my professor regarding concerns I had over the course. Communication with evaluators and teachers is the equivalent of communication with professional stakeholders at work. Each of them has a specific set of expectations they need to have met and it was and will be my responsibility to make sure that everyone is on the same page regarding those expectations. In my coursework, I have spent numerous hours in email and video conversations with professors working through issues and coming to understand what needed to be done and make sure it gets completed to expectations.

Even though I only took a single course in the area of algorithms and data structures, that work is represented in my ePortfolio with the activity trees solution. This submission and associated enhancements show that I have grown significantly in my understanding of these concepts and how to apply them. My initial submission of this system for the class missed a major component in checking for NULL scenarios that would cause the system to crash. The enhancement included here demonstrates how significantly my understanding of negative scenarios and algorithms has grown.

Multiple courses in software engineering have helped build that skill for me throughout my program. However, the submissions that I have in the ePortfolio for SQL Injection prevention and the database solution demonstrate specific skills that have grown over the course of my program. Both of these submissions were complete when I initially submitted them in their respective courses, however, the enhancements I’ve developed for this capstone demonstrate my growth in understanding of industry best practices and security. The additional security component to handle alphanumeric SQL injection attempts and creating aliases for table names are strong examples of enhancing existing working code to meet industry standards for best practices.

The work that was done on the SQL injection system is an example of the growth that I have demonstrated throughout my program in the area of security. Evaluating a solution that was initially built with security in mind for further potential flaws was difficult. However, with the growth I have experienced in my understanding of security through the rest of my program, I was able to identify areas of that system that still had vulnerabilities that needed to be addressed.

**Artifacts**

The artifacts that I have chosen for the ePortfolio demonstrate a wide array of skills in the areas of algorithms, software engineering, and databases. Each of the programs was written in C++, which is one of my strongest languages based on how frequently it was used throughout my program. I have built multiple programs in this language, and my ability to evaluate those solutions for further enhancements is a good indication of the skill I have gained with C++ over my program. The combination of the Activity Trees solution and the SQL Injection solution provide a good overview of the skill that I’ve developed in development concepts as a whole. Adding the databases project to that gives a well-rounded compliment to the traditional software development module that I created. Taken as a whole, the three artifacts in the ePortfolio are a strong representation of my growth and skill in computer sciences.