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CS 499

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Professional Self-Assessment

Completing my computer science degree has taught me one thing, the answer is always there. My professors from my original college said a computer science degree is a degree that means you know how to google. My computer science degree not only means I can find the answer, but I can make an efficient solution.

My ePortfolio has helped show my strengths throughout my courses from what code I had originally, to what code I had after revising it. I have always learned that there is never a wrong way to do something, but there can be a better way to do it. I personally like to ensure that my code is as efficient as it can be the first time, with the easiest solution, while taking the least amount of time. This portfolio’s artifacts show the original code and how it has been improved, even if it was small details such as rewording comments.

My degree has helped me learn how to work together in group projects, how to document reports and designs, communicate between team members and clients, how to structure my code efficiently, how to communicate data between front-end interfaces and back-end databases, and while coding focus on security. I originally used to go to a previous college in Louisiana before transferring to SNHU. My coursework has taught me a lot between both colleges and my personal experience.

In my previous college I had a software engineering class where I worked with a group to make an android application. We worked together to assign work, come up with an application design, and work together using GitHub. We completed the assignment to where our client liked our application and would use it. We had our issues we overcame such as an issue with our repo and needing to revert the code. We also had team members who were lazy and some of us had to do more work to complete the application.

For documenting reports and designs, I have had several classes where we learned how to complete different styles of charting for pseudocode. We also learned how to write descriptions of how our code works and if there were any bugs, along with the level of severity. The same classes were designed where we had to write reports to other team members, along with stakeholders.

During my courses, all classes taught me how to organize my code. I was always taught to keep my code “sexy.” When I write my code, I leave it blocked in sections, along with comments explaining what each section of code is doing. Structuring the code allows for ease of reading and maintainability.

When we look at different thinks I have learned during the coursework, one thing we can look at is data structures. We have gone over different ways to implement arrays, lists, stacks, queues, binary trees, and matrixes. The coursework included general questions of how to implement them to labs that needed to take specific inputs to where they matched specific outputs.

When it comes to databases, I have learned how to use MySQL and MongoDB. I have learned how to implement a database for an android mobile application for storing user account information along with their specific data, how to use command line to navigate databases, and how to implement front-end interfaces to where the user can interact with database information.

The one thing that was always taught while coding is security. Security while coding is an important thing to consider as there are many threats. Security should be looked at during the entire development process to ensure that no holes are left open for potential breaches. We learned how SQL injections, command line injections, and buffer overflows.

When we look at the artifacts included with this portfolio, it shows specific applications I have developed that touch on software design and engineering, algorithms and data structures, and databases. Each application is from a different class throughout my classes. There are new artifacts included with revisions that show what I have learned over my studies, which show all improvements that could have been made to the code.

The first artifact is about SQL injections from my CS 405 class, the second artifact is about exceptions from by CS 405 class, and the third artifact is about the python that connected to our MongoDB database from my CS 340 class. All artifacts represent only a small portion of what I have learned, but do demonstrate great skills and concepts.