Professional Self-Assessment

Over the course of taking my classes at Southern New Hampshire University I have completed course work that has helped me to gain and showcase skills necessary for the computing field. I have completed course work that shows my skills in python, java and c++. I have practical examples that I can show to potential employers that show working programs created in all of these languages. I also learned how to code and got to practice allowing me to improve and be better able to showcase my strengths. While working on the eportfolio I was able to find artifacts that showcased my skills in 3 different languages, using databases, cybersecurity, algorithms, data structures. I also showcase professional communication skills in the eportfolio.

My course work also helped shape my professional goals by allowing me to see different parts of the computing field and to allow me to find what I was most skilled in and most interested in. The eportfolio allowed me to showcase the skills that I have to meet my professional goals. This course has prepared me to enter the computer science career field by teaching me the topics of collaborating in a team environment, communicating to stakeholders, data structures and algorithms, software engineering and database, and security. One project that was completed as a team was the jukebox project from the collaboration and team project class. This project was an application to run a jukebox program. Everyone in the class contributed to this project and made code changes to the shared project. I learned how to work with others who were not in the same room as me to accomplish a shared goal which was completing this project. Changes people made could affect other people’s work on the project. I learned how to use version control software to ensure all past versions of the project could be accessed. A changelog was also used to ensure all peers on the project knew what changes were made to ensure everyone working on the project were on the same page. Code was also well commented in this project for the same reasons. An example of communicating to stakeholders throughout my course work is the technology consultation report from IT-201 course. In this project a company called MilleniAds wanted their current technology solutions analyzed to see how they could be improved to meet their future and current goals. This report was written to clearly explain to the stake holders why they should adopt the recommended solutions while ensuring it was understandable to those without a technical background. Examples of data structures and algorithms include the binary search tree that was created in the Algorithms and data structure and the hash table that was made in the same class. Both of theses data structures are used for searching and have advantages and disadvantages. During the intro to struct databases I learned SQL in order to affectively work with databases. A security example from my course work is the sql injection example code where sql injection was detected and prevented which enhances security.

In my eportfolio I have added three artifacts. The artifacts are for categories of Software Design and Engineering, Algorithm and Data Structures, and Database. The artifact that was chosen for software design and engineering is project 1 from foundations in app development class. Project one is an application to check in pets for boarding. The two types of pets are cats and dogs and the pet’s information, number of days they are staying and the cost of boarding. This application was made with java. This application and the enhancements made meet the course outcome “Demonstrate an ability to use well-founded and innovative techniques, skills, and tools in computing practices for the purpose of implementing computer solutions that deliver value and accomplish industry-specific goals”. The artifact that was chosen for Algorithms and Data structure is the buffer overflow example from the secure coding course. This application is an application where a user can compare an input to a given user account number. This was created with c++. This application and enhancements meet the course outcome “Develop a security mindset that anticipates adversarial exploits in software architecture and designs to expose potential vulnerabilities, mitigate design flaws, and ensure privacy and enhanced security of data and resources”. The artifact I have chosen for databases is the project 2 dashboard from client server development class. This dashboard is the user interface for an application that allows users to see what kind of dogs are currently in the shelter and what traits they have including breed, gender and age. This way the dogs can be chosen to be trained in search and rescue. The user interface before enhancement allowed users to view the results of the dogs that are in shelters. Users can filter results using radio buttons. The interactive table also has a pie chart that changes based on the results displayed. This application is made with python. This application and its enhancements meet the course outcome “Employ strategies for building collaborative environments that enable diverse audiences to support organizational decision making in the field of computer science”. The enhanced versions of the artifacts have enhanced added to the end of the file names.