Professional Self-Assessment

Cheyenne Nave

CS-499

SNHU

Dr. Maciosek

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The Computer Science program at Southern New Hampshire University has helped me grow exponentially. I am incredibly grateful, as now I am a successful software developer that has a firm understanding of Software Design and Engineering, Algorithms and Data Structures, and Databases.

The project I used for my capstone is a personal calculator that I built. At its base, it was a basic calculator that only performed basic arithmetic. The calculator had a sleek display which allowed for a high satisfactory user experience. To display what I have learned and what I understand, I added keyboard functionality, scientific functionality, and a login page with a MySQL database and a Node.js API. Each of these enhancements can be viewed on my ePortfolio: https://cheyennenave.github.io.

Other classes in the Computer Science program required me to understand secure coding, back-end development, front-end development, planning, proper communication with stake holders, version control, testing, and collaboration with teams. To prove my understanding, I successfully completed projects that reflected these topics.

SNHU class CS-310 revolved around team collaboration. I was taught how to use version control to update and edit code without deleting or overwriting work submitted by other team members. The class worked on a collective project together in which we built a music playlist for the class, and I received top marks for my submission.

CS-250 was about Agile Methodology, in which each week the class rotated roles of a Scrum Team. I have experience with how each role interacts with the other and how important planning is for software development. My time as a Project Manager paired with my sales background gave me confidence when speaking with stakeholders. I ensured they understood our current position in the project development. I also learned that Gantt charts are incredibly helpful and one of my favorite ways to plan my projects. These are only a few of the examples that display my firm understanding of Computer Science concepts, and how I will be an asset to my future employer.

The calculator I have built and enhanced is a direct summation of all the topics I have learned and mastered at SNHU. Without these vital foundational courses, I would have struggled and been unsuccessful. I used Version Control when building my calculator so I could provide zipped files of each enhancement without losing the original base. I used proper security protocols to ensure that my code would not leak vital information or allow for easy injection. I followed an organized plan for each change and commented my changes accordingly to keep proper notes. I tested consistently to discover bugs or buttons that did not work in an effort to provide the smoothest experience for the user. I effectively tied the front and the back ends together to create a seamless program that I am incredibly proud of.

I have employed strategies for building collaborative environments that enable diverse audiences to support organizational decision making in the field of computer science.

I have designed, developed, and delivered professional-quality oral, written, and visual communications that are coherent, technically sound, and appropriately adapted to specific audiences and contexts.

I have designed and evaluated computing solutions that solve a given problem using algorithmic principles and computer science practices and standards appropriate to its solution, while managing the trade-offs involved in design choices.

I have demonstrated 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.

I have developed 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.