Throughout the Computer Science program at SNHU I was able to develop skills that have allowed me to be successful in completing the program in less than two years and seek employment to enter the computer science field. By completing this ePortfolio I have been able to showcase successful skills that have enhanced my overall knowledge in Computer Science and will hopefully lead me to a career in the aerospace industry.

Although much of the program required independent work, one class in particular required us to work together as a team to contribute code through BitBucket. This showed how important it was to see and understand what others on the team were doing and make sure to always pull the code before doing any programing from your end. In the computer science field it is important to not only have communication with your team but also with the stakeholders as these tend to be the clients. One particular class, Agile Development, taught us the importance of understanding who the stakeholders were and working with them to complete a project. One must know and be mindful that the stakeholder can change their mind at any time which is why communication is very important. Throughout the program I learned several languages that have enhanced my knowledge of data structures and algorithms. For within each of these languages they have their own specific code that require you to be very particular about how you set up the code. The languages I learned were C, C++ Python, and Java. When taking courses for these languages I would be required to solve given problems using algorithmic principles and computer science practices, taking into account the design choices involved. I have also gained the ability to use 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 been able to accomplish this through several of my courses which include MonogDB. Along with this I have gained the knowledge that has allowed me to be proficient in data generation and analysis. Another very important skilled gained within the program is security within code. In particular the Secure Coding class taught me the importance of security within coding and it allowed me to develop a 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. Having a programming mindset with security is vital as I write code. I have made it a point to make sure that when I write programs I am keeping the security skills at the forefront. One class in particular taught me the importance of creating Junit tests and these can be extremely helpful when it comes to security within code. Overall, the strengths I have gained and developed have given me the confidence to know that I will be successful in the field of computer science.

To better showcase these skills I have included three different artifacts below that show how I have been successful in the Computer Science program at SNHU. The first artifact demonstrates my abilities within Software Design and Engineering by taking a program that I wrote in C++ and port it to Java. So not only did I need the skills for C++ to originally create the program, but I also needed to know the skills needed to change it Java. The second artifact is a Java program that is enhanced by giving the user more options when they log into a system. The code also interacts with dialog boxes which is a skill I learned on my own. The last artifact uses SQL to show that databases can do more by using PHP and HTML to display on a webpage and interact with the user. These three artifacts demonstrate the skills and abilities that I have gained that have prepared me to enter the working world.