During the completion of this coursework the development of the ePortfolio has showcased several strengths as well as shaped some values toward a career in Computer Science. During initial development, the implementation of enhancement ideas and the progression toward the implementation of that ideas the value of communication becomes even more apparent in importance. During the development of my enhancement one regarding an additional texture implementation specifically I engaged developer and professional based communities such as Stack Overflow via posts for insight into implementation. This communication coupled with research utilizing community resources lead me to further understanding of many of the enhancements I was attempting to implement such as data structure and algorithms. During the initial discussion of enhancement two I had ideas toward implementing an array to hold user information and thus implement administrator functions. The research into hash tables allowed me to understand their efficiency regarding smaller data sets as well as their limitations in larger data sets. This need for research, communication and collaboration furthered into enhancement three titles LoginapplicationWSQL.cpp. Research into different database options as well as preforming test trials allowed me to understand the differences and focuses of different database applications. Upon communication and collaboration with a few previous teachers and professional friends I was able to make and educated decision regarding the use of SQLite within my application. Communication with stakeholders was apparent in my communication with the development community regarding ideas toward enhancement implementation during my initial portfolio submission. Collaboration in a team environment came in the form of brainstorming with the development community regarding solutions to the enhancements. Upon this collaboration I was able to make decisions toward as well as create data structures such as the Hash Table implemented in enhancement two to be utilized to perform the desired functionality. This collaboration and communication extended to enhancement three during the development of software engineering and databases in deciding how to implement the functionality within the application regarding customer information. Furthermore, the idea of security was present in input validation of the enhancements implemented in both enhancements two and three. In summary, communication is key to the ability to collaborate within a team environment and is value that has been strengthened during the development of this coursework.

The portfolio provided is an introduction to my abilities and skills regarding computer science. Artifact one named cs330 milestone is meant to showcase my ability to create three dimensional objects within an OpenGL environment. This artifact is meant to show not only my ability in producing these objects, lighting, and scene but also display my current interest in art and its application in computer science. The implementation and understanding of a Vertex Array Object (VAO), Vertex Buffer Objects (VBO), and Element Buffer Objects (EBO) are visible within this application as well as the creation of fragment, light, and vertex shader source code. Artifact two named Loginapplication.cpp is meant to display my understanding of data structure creation and implementation within an application as well as also providing an example of my ability to implement algorithms to produce functionality utilizing those data structures. Furthermore, the choice of data structure as Hash Table was a decisive choice regarding the smaller data set in relation to time complexity. Lastly the final artifact named LoginapplicationWSQL.cpp is a continuation of the previous artifact and incorporates the addition of an SQL database utilizing SQLite to serves storage of customer records. This artifact is meant to serve as an example of my understanding regarding not only the implementation of SQL databases but also my understanding of the command functions to implement SQL CRUD (Create, Read, Update, Delete) functionality within a C++ application.

This ePortfolio is meant to display not only my abilities as provided by the examples of the work within it but also to serve as a display of my understanding of the computer science field through the choices made through the artifact. The skills I have obtain and strengthened during this endeavor range from my ability to research, communicate, and address a problem with my peers as well as the persistence and determination to pursue a solution despite challenges. This can be seen in my implementation of work provided within the ePortfolio as the many retooled initial ideas implemented to create creative solutions for the enhancements within the following artifacts.