Shad Riley

Professional Self-Assessment

CS 499

Throughout my time studying at Southern New Hampshire University, I have acquired a variety of skills and knowledge in the field of Computer Science. The rigorous curriculum pushes not only important functional knowledge of computer systems, but courses focusing on software development using many of the most in demand languages in use.

Referencing my ePortfolio, you can see my skills in Python development and MongoDB, as well as other skills. In my first enhancement which emphasized software design, you can see my python scripts show creative use of data structures, descriptive annotations, and python functions. In my second enhancement, my mastery of algorithms is displayed. Complex aggregation of a MongoDB database is used to mathematically calculate the age of each animal stored, count and average these ages over thousands of documents. This calculation is also done based on a set of parameters, such as finding the average age of all adopted dogs in the database. Lastly, my skill in full stack development is readily displayed in the final enhancement. Using python PyQt5 to develop an application with a graphical user interface, this accomplished the same result as the first enhancement to manipulate the data in the MongoDB database.

Software development has been a large part of my university education. As a result, my skills in engineering programs in languages such as Java, C++, and Python are competitive with experienced industry developers. Through repetitive practice honing these skills, I have also gained valuable knowledge of computer logic such as complex algorithms and debugging code.

In addition to the extensive knowledge gained from the University, I have over a decade of on-the-job experience in related technology fields. In my eight years of military experience, my main position has been air traffic control which has honed my skills of critical decision making and problem solving. In addition to that main duty, I have served in many information technology related roles. In my three years on the aircraft carrier, USS John C. Stennis, I was the designated Space and Naval Warfare Systems Command (SPAWAR) technical representative to troubleshoot and repair vital air traffic systems. After military service, I have been working with the Air Force. One of my duties is to design and maintain the Airfield Automation Systems.