CS-499 Professional Self-Assessment

Samuel Hemond

Hello, my name is Samuel Hemond and I am currently a computer science major at Southern New Hampshire University. Previously I have completed computer science classes at both Great Bay Community College and the University of New Hampshire. Through these classes, I have had experiences with the following programming languages, technologies, and frameworks. In no particular order, I have worked with C, C++, Java, XML, Android, React Native, JavaScript, Python, HTML, CSS, MySQL, SQLite, MongoDB, Google’s Firebase Realtime Database, GDScript, TensorFlow with Keras, as well as the MEAN stack using MongoDB, Express JS, Angular, and Nodejs. Outside of class work, I have worked with React native and GDScript on various personal projects.

I started taking computer science classes during my Associate of liberal arts at Great Bay Community College which I completed in 2017. From there I transferred to the University of New Hampshire where I pursued my Bachelor's in computer science from 2018 to 2021 when I withdrew during the start of COVID-19. I worked at a machine shop until I transferred my credits to SNHU at the end of 2022 to complete my degree and am set to complete my classwork at the end of June 2024.

During my time at Great Bay Community College (GBCC), I took several computer science classes. I took entry-level C++ and Java classes serving to teach the basics of object-oriented programming and programming language fundamentals. I also took a class on the basics of Linux which has helped immensely in this field. At the end of my time at GBCC I took a final class covering the fundamentals of mobile application design for Android Studio as well as an introduction to version control systems with bit bucket.

From here I started as a Computer Science student at the University of New Hampshire (UNH). In my time at UNH, I mostly worked with C, C++, Java, SQLite, and Python with some work in SQL, JavaScript, HTML, CSS, XML, LEG instructions, and assembly. Many of my classes during my time at UNH covered lower-level topics such as data structures, algorithms, machine organization, operating systems operations, and microprocessor programming.

At UNH I also learned topics such as agile design principles which was taught alongside designing and developing a basic 2d Android tank game with a team involving both an app, SQLite database, and a server for multiple players. I also learn about the topic of cyber security from the view of an IT professional. I also learned the basics of HTML, CSS, and JavaScript with a basic website sending queries to a public API.

From here I started at SNHU and worked mainly with JavaScript, Python, C++, Java, MySQL, SQLite, Goggle Firebase Realtime Database, TensorFlow with Keras, MongoDB, Express JS, Angular, and Node. During my time at SNHU, I also learned much more about designing software and relevant documentation, designing security-conscious software, and developing effective tests for programs. My classes also covered AI topics working with TensorFlow through Keras on identifying handwriting and solving the best path problem for a pirate to reach a goal. I also worked with Android again integrating SQLite with Android persistent room library. Finally, I implemented the MEAN full stack consisting of MongoDB, Express JS, Angular, and Node to develop a simple website using both standard web pages and single-page applications.

Outside of classwork I have worked with JavaScript, CSS, and HTML on my own to work on some simple web games and am learning GDScript to continue coding games as a hobby in my free time. I have also set up simple React Native projects but have not had time to progress far with them at this point.