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CS499

02/10/2025

### Self-Assessment

Throughout my **Computer Science degree program**, I have strengthened my expertise in **software engineering, security, database management, and algorithmic problem-solving**, refining the skills necessary for success in the field. My coursework and **hands-on projects** have allowed me to transition from self-taught programming to structured, industry-standard software development. By compiling my **ePortfolio**, I have curated technical artifacts that showcase my ability to design efficient, scalable, and secure applications—demonstrating my readiness to contribute to a professional team.

One of the most **impactful areas of growth** has been my ability to **collaborate in a development environment**. While much of my academic work was independent, my prior professional experience at **Quantum Plastics** involved troubleshooting manufacturing processes alongside engineers—an experience that reinforced the importance of problem-solving in team settings. Additionally, my work in **freelance game modification** required engaging with users to refine software based on feedback. These experiences, along with my **StockSense** project—where I implemented **multi-user authentication and cloud database integration**—demonstrate my ability to build software that supports **collaborative environments**.

**Technical communication** has been another critical skill developed during my coursework. In **Enhancement One** of **StockSense**, I structured and documented a **modular UI**, ensuring the design followed best practices and could be maintained by future developers. In **Enhancement Two**, I optimized search functionality, transitioning from an  **$O(n)$  linear search** to a **dual HashMap approach ( $O(1)$  for ID lookups)**. My **SearchHashMapsAnalysis** document outlined these algorithmic improvements with detailed technical breakdowns. Additionally, while integrating **Supabase authentication** in **Enhancement Three**, I utilized **Postman for API testing**, documenting database interactions to ensure seamless security implementation.

My coursework has reinforced **foundational computer science principles**, including **data structures and algorithms, software engineering methodologies, and secure development practices**. My ability to apply these concepts is evident in my **OpenGL project**, where I developed **3D rendering optimizations**, and in my **CS465 MEAN stack project**, where I built a **full-stack web application** integrating MongoDB, Express, Angular, and Node.js. These projects highlight my adaptability in **both frontend and backend development**.

Security has been a primary focus in my recent work. In **Enhancement Three**, I replaced **insecure credential storage (SharedPreferences)** with **hashed password authentication**, ensuring user data protection. My knowledge of **secure API interactions, database management, and authentication protocols** continues to expand, making security-conscious development a core aspect of my approach.

My ePortfolio is a **reflection of my growth as a developer**. Each artifact showcases a **progression in technical ability**, problem-solving skills, and adaptability to **real-world software challenges**. From **database optimizations** to **modular software design**, these projects highlight the depth of my **computer science expertise**. More importantly, they illustrate my commitment to continuous learning, professional development, and delivering **efficient, maintainable, and scalable** software solutions.

I look forward to applying these skills in a **dynamic development environment** where I can contribute **technical expertise, problem-solving skills, and a security-first mindset** to innovative projects.