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Cs 499

Throughout my three years in the Computer Science program, I have developed a strong foundation in programming, software design, data structures, algorithms, database management, and cybersecurity principles. Completing my coursework and developing my ePortfolio has allowed me to integrate these skills into real-world applications while showcasing my technical strengths, problem-solving abilities, and readiness to enter the professional field as a software engineer. The process of enhancing my projects and reflecting on them has also shaped my professional values of collaboration, continuous learning, and ethical responsibility in technology.

One of the most valuable experiences in this program was learning how to collaborate effectively in a team environment. In several courses I participated in team-based projects that simulated real-world development processes. I learned to use Agile methods, version control systems like GitHub, and tools such as Jira to communicate progress and manage tasks collaboratively. Working in these teams taught me the importance of version tracking, clear documentation, and regular communication to avoid conflicts in shared codebases. These experiences strengthened my teamwork and leadership abilities and prepared me for cross-functional collaboration in a professional software development setting.

Communication has also been a central theme of my growth. Through project proposals, design documents, and technical presentations, I learned how to communicate complex computing concepts clearly to both technical and non-technical stakeholders. In Software Design and Development and Mobile Architecture and Programming (CS 360), for instance, I practiced presenting design diagrams and explaining code logic to instructors and peers. These opportunities helped me refine my ability to translate technical details into understandable terms, a skill that is vital when gathering user requirements, writing documentation, or presenting solutions to management and clients in a professional role.

Security became a more prominent focus later in the program. I learned to recognize potential vulnerabilities, such as SQL injection and insecure data handling, and apply mitigations such as input validation, password hashing, and secure database connections. This awareness carried into my capstone enhancements, where I

implemented SHA-256 hashing for password protection and refactored the database architecture to minimize risk. Understanding the security implications of software design decisions has reinforced my commitment to ethical and responsible coding practices—essential traits for any professional in computer science today.

Collectively, the skills I have gained across these domains—collaboration, communication, algorithms, software engineering, database management, and security—form the foundation of my professional identity. The artifacts included in my ePortfolio, particularly the enhanced *Weight Tracker mobile application*, serve as evidence of how these abilities come together in practice. The app demonstrates my ability to design modular and scalable software, apply algorithmic logic for efficiency, and integrate secure database systems—all within a real-world development environment. Together, these artifacts reflect my growth from a student learning fundamental programming concepts to a well-rounded developer capable of building secure, user-friendly, and efficient applications.

Overall, completing my coursework and creating my ePortfolio has allowed me to demonstrate not only my technical proficiency but also my adaptability, communication skills, and ethical awareness. These experiences have shaped my professional goals of becoming a software engineer who contributes to building reliable, secure, and innovative technology solutions. My portfolio captures the journey of that growth—highlighting my strengths, reflecting my learning, and showcasing the full range of computer science talents that I will bring to future professional opportunities.