Mark Alexander

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EDUCATION

Towson University – Bachelor of Science in Computer Science Jan. 2023 – Dec. 2024

- GPA: 3.65
- *Relevant Coursework: Cybersecurity, Cryptography, Artificial Intelligence, Data Communications & Networking, Operating Systems, Software Engineering*

Pikes Peak Community College – Associate of Science in Computer Science Aug. 2020 – May 2022

- GPA: 4.00
- *Relevant Coursework: Computer Architecture/Assembly, Computer Science I & II: C++*

SKILLS

Languages: Python, Java, JavaScript, Kotlin, C++
Technologies: Git, React, Node.js, Express.js, MongoDB

PROJECTS

Full-Stack Game Website (MERN Stack)

- Collaborated closely with team members to develop a multi-game website using MongoDB, Express, React, and NodeJS.
- Spearheaded the implementation of front-end functionalities, leveraging React to create dynamic and interactive interfaces for games such as tic-tac-toe, checkers, and connect four.
- Designed and developed the login and signup pages, ensuring secure authentication, while integrating them seamlessly with the back end.

Android Planner Application (Kotlin/Jetpack Compose)

- Contributed to the development of an Android planner application using Kotlin and Jetpack Compose, taking charge of both database integration and UI design.
- Implemented a database system to efficiently manage user data, ensuring seamless storage and retrieval of information within the application.

TU Course Finder Web Extension (JavaScript)

- Developed a Chrome extension to help Towson University students easily locate their classrooms by integrating class data from PeopleSoft and providing Google Maps directions.
- Collaborated with my team to integrate a database, resolving issues related to data flow and ensuring seamless link injections onto the webpage.

Snake AI (Python/PyGame)

- Utilized Python and PyGame to construct and train an AI model efficiently though a genetic algorithm.
- Implemented reproduction and mutation of the “fittest” snake to simulate generations of snakes that adapt and improve.

NDS Icon Extractor (C/C++)

- Translated a JavaScript project into C/C++ to extract and reconstruct game icon data from a Nintendo DS game file into a PNG image.
- Gained hands-on experience with C++ while adapting the code to work within the context of an open-source Nintendo DS emulator.
- Improved understanding of file handling and image processing in C++ through the translation and implementation of the project.