Mark Alexander

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EDUCATION

Towson University Jan. 2023 – Dec. 2024
Bachelor of Science in Computer Science *GPA: 3.65*

- Relevant Coursework: Cybersecurity, Cryptography, Artificial Intelligence, Data Communications & Networking, Operating Systems, Software Engineering, Mobile Applications Development

Pikes Peak Community College Aug. 2020 – May 2022
Associate of Science in Computer Science *GPA: 4.00*

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

SKILLS

Languages: Python, Java, JavaScript, Kotlin, C++
Frameworks & Libraries: React, Node.js, Express.js
Developer Tools & Technologies: Git, Visual Studio Code, Visual Studio 2022, Linux, MongoDB

PROJECTS

Full-Stack Game Website | MongoDB, Express.js, React, Node.js

- Collaborated closely with team members to develop a multi-game website using MongoDB, Express.js, React, and Node.js.
- Led 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

- Developed an Android planner application using Kotlin and Android Studio to help users track tasks and events, viewable via a calendar or task list.
- Designed and implemented a user-friendly and intuitive user interface, ensuring a seamless and responsive experience across screen sizes and devices.
- Implemented a database system using Android's Room Database library 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 implement an IndexedDB database, resolving issues related to data flow and ensuring seamless link injections onto the webpage.

Snake Game A.I. | Python

- 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.

Nintendo DS 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/C++ while adapting the code to work within the context of an open-source Nintendo DS emulator.