Alan Wan

Las Vegas, NV | alanwandev@gmail.com | alanwancodes.com | linkedin.com/in/alanwan1 | github.com/Dynasty1709

Education

Bachelor of Science in Computer Science | GPA: 4.0
Oregon State University - Corvallis, OR | Expected Graduation: March 2026

Bachelor of Science in Microbiology
Kansas State University - Manhattan, KS

Technical Skills

Languages: Python, C, C++, C#, JavaScript, HTML, CSS, SQL, MASM x86 Assembly
Frameworks & Tools: React, Node.js, Express.js, MongoDB, Git, GitHub, Unity, REST APIs, Bash/WSL/Linux

Work Experience

Neuromonitoring Technologist | SpecialtyCare - Las Vegas, NV | Nov 2024 - Present

- Provided real time technical support and neurological data analysis to surgeons by performing multimodal testing (SSEPS, MEPs, EMG) and configuring electrode arrays to ensure patient safety during spinal surgery.
- Diagnosed system failures and optimized monitoring setups by calibrating and adjusting neurodiagnostic hardware and software in high pressure surgical environments.
- Documented electrophysiological activity, maintained electronic medical records, and contributed to QA processes by auditing technologist cases and mentoring new hires for board certification.

Projects

Exercise Tracker Web App | *React, Node.js, Express, MongoDB*

- Built a fullstack CRUD application to log and manage user exercise data, featuring a responsive frontend with React and React Router
- Developed RESTful API endpoints with Express.js, connecting to MongoDB for persistent storage with user validation and error handling

Deer/Grain Simulation | *C++, OpenMP*

- Developed a multi threaded C++ simulation using OpenMP to model the dynamic interactions between deer, grain, temperature, and precipitation over a six year span
- Ensured thread safety using barrier synchronization to prevent race conditions

Fog of War Chess | *Python*

- Developed a chess variant with a custom board rendering system that supports multiple player perspectives
- Created a turn based game loop that validates moves and maintains game state with player specific visibility constraints, ending when a king is captured

Top Down Shooter Game | *C#, Unity*

- Designed a shooter game with player movement, shooting mechanics, collision detection, and sound effects
- Utilized loops and arrays to continuously and randomly generate enemies

Calculator App | *HTML, CSS, Javascript*

- Built a fully functional web based calculator with support for mouse and keyboard input
- Implemented core arithmetic operations and features like negative numbers and decimals
- Developed responsive UI with input validation and visual feedback

Etch a Sketch App | *HTML, CSS, Javascript*

- Developed an Etch a Sketch web app that dynamically allows the users to draw by hovering over a customizable grid
- Implemented grid generation with real time resizing based on user input and interactive UI with event listeners to track mouse movement
- Built reset functionality and manipulated the DOM to create and clear grid elements