Alan To

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TECHNICAL SKILLS

Languages: Java, Python, JavaScript, TypeScript, C, R, Erlang, SQL (Postgres MySQL, SQLite), HTML, CSS, Assembly
Frameworks/Libraries: React.js, Next.js, Node.js, JUnit
Tools/Technologies: Git, Docker, Postman, Bash, RESTful APIs, Ubuntu/Linux, VSCode, IntelliJ, Eclipse, SIEM Tool, JSON

EDUCATION

University of Washington   **Sept. 2022 – June. 2025**
Bachelor of Science in Computer Science and Minor in Mathematics
- **GPA:** 3.86 | **Honors**: Dean's List (Spring 2023, Winter 2024, Autumn 2024)
- **Relevant coursework:** Algorithms, Data Structures, Software Development and Quality Assurance, Database System Design, Game Development, Web Development, Cryptography

Green River College   **Sept. 2020 – June. 2022**
- **GPA:** 3.86 | **High Honors Distinction**
- **Relevant coursework:** Intro to Programming, Object-Orient Programming, Intro to Cybersecurity, IT Essentials

Certifications: Google Cybersecurity Professional Certification

EXPERIENCE

Happy Lemon | Bubble Tea Shop   **Bellingham, WA**
Barista and Cashier   **Sept.– Jan. 2023**
- Enhanced customer satisfaction and team collaboration through clear interpersonal communication.
- Trained and mentored 10+ new employees, improving onboarding speed and team efficiency by 25%.
- Delivered and managed boxes of supply orders, streamlining inventory organization and reducing restock time by 20%.

PROJECTS

Survivor Game | *JavaScript, HTML, CSS*
- Achieved **top 3** games among 20+ teams through effective collaboration with a team of 4 developers in competition.
- Developed an engaging top-down rogue-like action game with boss AI (4 types), enemy AI (20 variations), player abilities, and procedural spawn-system.
- Optimized game performance, balanced gameplay mechanics, camera movement, and UI to ensure smooth interactions leveraging off a fully developed game engine and animation system we designed.
- Led team in an **Agile** 10-week sprint, conducting code reviews, weekly user stories, and task deadlines.

Marvel Trivia Maze | *Java, Java Swing, SQLite, GIT, JUnit*
- Developed a game for users to play and answer Marvel trivia questions to escape a maze with team of 3 in a 7-week sprint.
- Facilitated team success via discussions, goal setting, and individual progress tracking that resulted in 100% on-time delivery of user story commitments.
- Implemented saving and load functionality using **serialization**, increasing player session continuity by 100% and reducing game restart time by over 50%.
- Quality code assurance with the use of check style, code reviews, mock objects, and **JUnit** testing.

Game of Craps | *Java, Java Swing*
- Independently created a fully functional casino-style card game with betting and scoring logic.
- Followed **MVC** and **Singleton** patterns to ensure modular code structure.
- Developed full-stack functionality using **Java Swing** for UI and backend logic for a complete playable experience.

Bookstore | *Next.js, Node.js, HTML, Docker, Postman, CSS, TypeScript, PostgreSQL, React*
- Engineered a full-stack library application enabling book search, addition, and browsing for 500+ entries, integrating a third-party API.
- Designed and implemented a **React**-based frontend with pagination, filtering, and user-friendly navigation for an intuitive browsing experience while reducing page load times by 38%.
- Tested RESTful endpoints (GET, POST, PUT, DELETE) using Postman for backend reliability.

HOTO Movie Website | *React, JavaScript, MySQL, HTML, CSS*
- Developed a responsive movie search platform with user registration, SQL backend, and clean database architecture.
- Created and managed **MySQL** schemas and queries; integrated backend with frontend **React** components.
- Optimized SQL queries and indexing, improving database query performance and reducing average page load time by 25%.