

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, REST APIs, Ubuntu/Linux, VSCode, IntelliJ, Eclipse

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

Associates of Arts

- **GPA:** 3.86 | **High Honors Distinction**
- **Relevant coursework:** Intro to Programming, Object-Orient Programming, Intro to Cybersecurity, IT Essentials

EXPERIENCE

Happy Lemon | Bubble Tea Shop.

Bellingham, WA

Barista and Cashier

Sept.– Jan. 2023

- Provided friendly customer service and demonstrated great **interpersonal communication** skills with the team.
- Trained and mentored new employees, improving team efficiency by 25%.

PROJECTS

Survivor Game | *JavaScript, HTML, CSS*

- Achieved **top 3** games among 20+ teams through effective collaboration with a team of 4 developers.
- 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 a small 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 save/load functionality using serialization and used mock objects for testing.
- Quality code assurance with the use of check style, code reviews, and **JUnit** testing.

Game of Craps | *Java, Java Swing*

- Independently created a fully functional casino-style card game with betting and scoring logic.
- Followed Model-View-Controller and Singleton patterns to ensure modular code structure.
- Developed full-stack functionality using **Java Swing** for UI and backend logic for gameplay.

Bookstore | *Next.js, Node.js, HTML, Docker, Postman, CSS, TypeScript, PostgreSQL, React*

- Built a **full-stack** library web application in a team of 4 using multiple frameworks and a third-party API to allow and enable users to search, add, and view books.
- Built the React-based **frontend** using **HTML** and **CSS**, integrated with another team's backend API.
- Developed the React-based frontend with pagination, search, filtering, and user-friendly navigation for an intuitive browsing experience.
- Tested RESTful endpoints (GET, POST, PUT, DELETE) using Postman for backend verification.

HOTO Movie Website | *React, JavaScript, MySQL, HTML, CSS*

- Created a responsive movie information site where users can register and search for films, using React and **MySQL** in a team of 2.
- Developed and managed backend database schemas and queries; integrated with frontend components.
- Practiced clean **SQL** database architecture and **ER diagram** planning.