Tong Wu

Seattle, Washington | alleytongwu@gmail.com | 503-443-8896 | linkedin.com/in/alley-wu

EDUCATION

Bachelor of Science in Informatics | University of Washington

June 2026

Focus: Data Science, Software Engineering, Human-Centered Interaction

GPA: 3.85 / 4.00 (Honor: Dean's List)

TECHNICAL SKILLS

- Languages: Java, JavaScript, Python, SQL, HTML, CSS
- Coursework: Data Structure and Algorithm, Recommendation and Search System, Software Designs, Databases and Data Modeling, Programming Languages and Implementation, Data Policy and Ethics
- Software Tools: React, GitLab, GitHub, Supabase, PostgreSQL, n8n, Lovable, Firebase, Figma, Canva, MS Office
- Strengths: Communication, Collaboration, Problem Solving, Adaptability, Creativity

EXPERIENCE

Al Engineer Intern | Captus.ai | Seattle, WA

June 2025 – Present

- Launched 5 production RAG/swarm agents with API integrations (OpenAI, Google, Anthropic)
- Raised chatbot accuracy from 20% to 80% via evaluation frameworks + agents optimization
- Embedded 1K+multi-modal docs in Supabase; improved search precision and latency
- Engineered Supabase integrations, optimizing a 30-table database with advanced SQL, and built a real-time dashboard in JavaScript/HTML/CSS to deliver accurate and live client data

PROJECTS

Coding Platform for ADHD Children

March 2025 – June 2025

- Built coding lessons with real-time feedback and gamified features to boost engagement
- Engineered accessibility tools (screen reader, dark/light mode, progress tracking), improving usability for neurodiverse students
- Developed Firebase for profiles and dashboards, enabling 100% persistent progress tracking

Gesture-Powered Keyboard – Interactive Web App

March 2025 – June 2025

- Developed a swipe-to-text keyboard, reduced typing time by 25% and improved accessibility
- Implemented customizable gesture-to-word mapping, enabling faster, personalized text input
- Built a responsive UI with real-time feedback, boosting accuracy by 40% in 15+ user tests

Maze Generation and Pathfinding

December 2024 - March 2025

- Built a Java maze visualizer with Dijkstra's, achieving 100% accuracy and 40% faster computation
- Implemented Kruskal-based generator producing 100% solvable mazes at 3x complexity
- Resolved 15+ algorithmic bugs, improving stability and reliability across all test cases

MyBuddy — Mobile Mental Health App (Figma)

December 2024 - March 2025

- Designed a high-fidelity prototype with mood check-ins, personalized tips, and campus activities
- Ran 10+ user interviews and a survey to surface needs and support gaps
- Conducted cognitive walkthroughs + heuristic evaluations; fixed UX issues and streamlined flows

Search and Recommendation System for Finding Recipes

September 2024 - December 2024

- Integrated BM25, TF-IDF, and LLM retrieval to rank recipes, improving query relevance
- Applied multiple AI/ML libraries to clean/ structure datasets for analysis
- Designed a responsive search UI (JavaScript, CSS, HTML) for faster discovery

Personalized Meal Planner – Full-Stack Web App

June 2024 - August 2024

- Built a React UI with 20+ interactive components; improved cross-device usability by 35%
- Implemented Firebase auth and database for secure access and efficient data retrieval/storage
- Set up a CI/CD pipeline with auto-deployments, streamlining reviews, and accelerating delivery

LEADERSHIP & COMMUNITY

Vice President | Husky Help Organization (UW RSO)

- May 2024 June 2025
- o Orchestrated 20+ community events for the UW students, securing \$5K in sponsorships
- o Collaborated with cross-functional teams to increase participation and engagement
- Led mentorship for 25+ new members, improving retention and fostering leadership development
- **Direct Admitted INFO FIG Leader** | UW First Year Program

March 2025 – Present

- Designed a GEN ST 199 module to help incoming DA INFO transition to UW academics and campus life
- Trained in teaching, communication, and advising strategies, mapped UW and iSchool resources for first-year support
- Leading lectures and mentoring a cohort of 30 freshmen to build community, confidence, and engagement
- **Product Manager** | Women in Informatics (WINFO) Hackathon

Jan 2025

- o Led a 4-person team to design and ship a disaster-relief prototype (Figma) in 9 hours
- Built interactive features including recipient profiles, real-time donor-need matching, and transparent donation tracking
- Selected top finalist; Best Overall Project 2nd Place