Gabriel Cheng

425-638-9087 | gabrieltcheng@gmail.com | linkedin.com/in/gabec123 | github.com/gabecheng123

Education

University of Washington Seattle, WA

B.S. in Computer Science, Minor in Neural Computation and Engineering — GPA: 3.8 *September 2025 – June 2029*

Coursework: Foundations of Computing, Data Structures and Algorithms, Software Design and Implementation, Hardware Software Interface, Calculus

Experience

Software Team Lead Jan 2026 – Present

UW Fitness Tech

- Leading a team of 5 members
- Creating an app (with Flutter) that connects to a "BioBand" that tracks calories and calculates reps and steps based on movement
- Communicate with engineering and business teams

Front of House Manager Jun 2025 – Oct 2025

Chi Mac

- Trained 2 new Hires
- Managed upwards of 120 orders an hour
- Maintained stock of 50+ items and communicated with suppliers

Projects

Card Counting Trainer | *Java, JavaFX, Swift, ML* Nov 2025 – Present

- Interactive blackjack training game to help users practice card counting through real-time gameplay simulations
- Designed an object-oriented game engine modeling decks, shuffling, dealing, and scoring using running and true count mechanics
- Implemented an adaptive based training system that analyzes user accuracy and response time to dynamically adjust game difficulty and pacing
- Currently translating the application to Swift

Custom Running Route Generator | *JavaScript, React, Google Maps API, OpenAI API* Jan 2026 – Present

- Developing a Chrome extension that generates custom running routes from natural language input (e.g., "2 mile run passing by Green Lake")
- Integrated OpenAI API to parse user intent and extract parameters like distance, waypoints, and location preferences from English queries
- Utilized Google Maps Directions, Places, and Geocoding APIs to convert landmark names to coordinates and calculate optimized routes
- Implemented custom JavaScript algorithms to generate loop circuits that return to starting location while matching requested distance and waypoints

Algorithm Visualizer | *Python, Pygame, Algorithms* Jan 2026

- Designed and implemented an interactive algorithm simulation tool to visualize sorting and graph algorithms step-by-step
- Built real-time animations using Pygame to render arrays, graphs, and grids with adjustable execution speed
- Implemented user controls for play, pause, reset, and input customization to explore algorithm behavior

Technical Skills

Languages: Java, Python, C/C++, JavaScript, HTML/CSS, Swift, x86-64 Assembly
Frameworks: React.js, Node.js, Next.js, Express.js, FastAPI, Flutter
Developer Tools: Git, Linux, LaTeX, VS Code, Visual Studio, AWS, Cursor, ClaudeCode
Concepts: Machine Learning, Object-Oriented Programming, Web Frameworks, Databases, Full stack, Cloud Computing