

Bruce Huang

Medford, MA — +1 336-986-5980 — yanxiao.huang@tufts.edu — <https://github.com/bruceh38> —

Summary

CS junior focused on building and shipping web applications and services. Experience with **Python** backends and **TypeScript/React/Tailwind** UIs; comfortable with **AWS** basics, **Git/Docker/Kubernetes**, and **CI/CD** to automate build/test/deploy for microservices.

Education

Tufts University, Medford, MA

B.S. Computer Science

Relevant coursework: Algorithms, Data Structures, Operating Systems, Web Programming, Software Engineering, Machine Structure & Assembly; Major GPA: 3.94 (Dean's List)

Skills

Languages: PHP, Swift, Python, TypeScript/JavaScript, Java, C/C++, SQL

Frontend: React, Next.js, Tailwind CSS, HTML/CSS

Backend: Flask/FastAPI, Node.js/Express, REST APIs, microservices (modular services, JSON/HTTP)

Cloud/DevOps: AWS basics, Docker, Kubernetes, Git

Databases: MySQL, PostgreSQL, DynamoDB

Practices: Requirements gathering, code reviews, unit/integration testing, debugging, performance-minded design

Work Experience

Fosun Hive Capital Management

Jun 2024 – Aug 2024

Intern

Built SQL/Python data workflows and lightweight dashboards covering \$500M+ JV assets; improved reporting efficiency by **30%**.

Visitor Registration Kiosk — HTML/CSS/JS (Android WebView)

May 2025 – Aug 2025

Independent project for an international firm

- Built offline bilingual UI with **Tailwind-style** component structure; integrated PDF.js and Canvas signature pad.
- Admin panel (local auth) and data export; reduced manual workload by **60%**.

Personal Projects

ClimbStrong iOS App — (Swift + SwiftUI + CoreML-ready)

Oct 2024 – Present

- Developing a native iOS training app for climbers built with Swift and SwiftUI, focused on tracking workouts, fingerboard sessions, max hangs, and progress visualization.
- Implementing modular view components, state management with SwiftUI's @State/ObservedObject architecture, and persistent storage via CoreData.
- Designed a clean workout logging system with dynamic forms, automatic load calculations, and progress charts using Swift Charts.
- Currently integrating camera-based rep detection hooks for future CV features and seamless interaction with your Python/OpenCV route detector.

Climbing Route Detection Tool — Python (Flask), OpenCV, JS

Oct 2024 – Present

- Exposed image-processing pipeline via **Flask REST endpoints**; AJAX UI for live previews and threshold tuning.
- Modular stages (preprocess, HSV masks, connected components) with clear interfaces for future microservices split.

NetView Movie Web App — Node.js/Express, MySQL, JS

Jan 2025 – May 2025

- Implemented REST routes for search/sort/filter against normalized **MySQL** schema (users, movies, favorites).
- Added auth/session handling and pagination; followed **Git** workflows and basic route tests.

Java jRails (Lightweight MVC) — Java

Mar 2024 – May 2024

- Implemented routing, controllers, templated views; designed clear request/response interfaces for service boundaries.

Local File Search Engine — C/C++

Jan 2025 – May 2025

- Recursive indexer with custom **hash table** (separate chaining), case-insensitive queries, robust CLI error handling.

Huffman Coding Compressor — C

Sep 2023 – Oct 2023

- Complete encoder/decoder with priority-queue tree build, serialization, and bit-level I/O; verified on sample corpora.