

Alan Tai

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Location: Boston, MA (Open to Relocation) | January - August 2026

EDUCATION

Northeastern University

Bachelor of Science in Computer Science, Minor in Economics

August 2024 – May 2028

Boston, MA | GPA: 3.8/4.0

Relevant Coursework: Object-Oriented Design, Algorithms & Data, Intro to Databases, Foundations of Cybersecurity, Intro to Mathematical Reasoning, Discrete Structures, Foundations of Data Science, Physics 1 & 2, Calculus 1 & 2

TECHNICAL SKILLS

Languages: Java, Python, TypeScript, SQL, Pyret, Lisp, HTML/CSS, Swift, LaTeX

Technologies: React, Next, Node, VS Code, Tailwind CSS, MySQL, Docker, PostgreSQL, Express, NumPy, Pandas, SKlearn, Matplotlib, Linux, VisionKit, SwiftUI, Office 365, XCode, Figma

EXPERIENCE

Web Developer

July 2025 – Present

Boston, MA

FirstByte

- Developed a secure student management tool using **React, Prisma, and Supabase** to centralize program operations and attendance tracking for community-focused coding workshops.
- Engineered the database layer by designing relational schemas in Prisma to manage complex student-mentor data, optimizing query performance and ensuring data consistency across the application's backend.

Teaching Assistant (CS2000)

August 2025 – December 2025

Boston, MA

Khoury College of Computer Sciences

- Supported **100+ students** 15 hours/week in intro to program design and implementation using Pyret/Python.
- Facilitated labs, office hours, and one-on-one tutoring sessions, tailoring instruction to address questions and assisting in problem-solving. Assisted **30+ students** to pass assessments.

PROJECTS

Appli-Tracker | Streamlit, Flask, MySQL, Docker, Python

November 2025 – December 2025

- Architected a full-stack job tracking application using a Flask REST API and MySQL, utilizing Streamlit to visualize application pipelines and key performance metrics.
- Streamlined application management by building a relational database schema that synchronizes job with user-specific resumes for real-time updates.

StudyBuddies | Typescript, React, Express.js, PostgreSQL, Socket.IO

July 2025 – December 2025

- Developed a **full-stack web** application that allows Northeastern students to instantly find and connect with classmates by enrolling in courses based on their specific CRNs.
- Developed a robust backend with Express.js, **Prisma**, and PostgreSQL, featuring JWT security and Socket.IO for live updates, while integrating an AI-powered schedule parser to enhance user onboarding.

PostureMaxx | Swift, iOS, VisionKit, AVFoundation

March 2025

- Third place at VITAL's Hackathon** by spearheading the development of a real-time iOS posture monitoring app that leverages on-device machine learning to prevent chronic pain.
- Utilized a real-time pose detection algorithm using Apple's AVFoundation and Vision frameworks to compute shoulder-to-neck angles. Implemented temporal smoothing to reduce jitter and improve tracking stability.

NUGuessr | TypeScript, React, Next.js

February 2025

- Delivered a polished and functional application won the **Best Beginner Award** at the HackBeanpot Hackathon out of **100 participants** for its creative solution to a common student problem.
- Led a team to build an interactive game tailored for students to gamify their learning of the Northeastern campus.

INTERESTS

Lifting, Rubik's Cube, Sudoku, Rock Climbing, Dining, Disney, Video Games, Hiking, Running