

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: 3.826/4.0

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, Lisp, TypeScript, SQL, Swift, HTML/CSS, LaTeX

Technologies: React, NextJS, Node, Tailwind CSS, MySQL, Docker, PostgreSQL, Linux, VisionKit, SwiftUI, Racket

Software: Git, VS Code, Office 365, XCode, Figma

EXPERIENCE

Web Developer

July 2025 – Present

FirstByte

Boston, MA

- Developed a full-stack program management system using **Next.js, Prisma, and Supabase** that integrates Northeastern SSO authentication to securely manage program content and track user attendance.
- Collaborated with the Project Manager to implement an internal infrastructure dashboard for system monitoring while simultaneously resolving UI issues to ensure the public website remained modern and responsive.

Teaching Assistant (CS2000)

August 2025 – Present

Khoury College of Computer Sciences

Boston, MA

- Supporting 100+ students 15 hours/week in program design and implementation using Pyret and Python.
- Facilitating labs, office hours, and **one-on-one** tutoring sessions, tailoring instruction to address questions and assisting in problem-solving.
- Assessing student coursework and delivering detailed feedback to improve code quality, structure, and readability.

PROJECTS

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

November 2025 – Present

- Architected a full-stack job tracking application using a Flask REST API and MySQL to manage relational data, utilizing Streamlit to visualize application statuses and metrics in a dynamic dashboard.
- Engineered robust CRUD functionality with complex SQL queries to enable real-time tracking, editing, and deleting of job applications while linking specific resumes to job listings.

StudyBuddies | React, Node.js, PostgreSQL, Socket.IO, OpenAI

July 2025 – Present

- 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.
- Engineered a secure REST API with **Node.js**, implementing JWT for authentication and using the **Prisma ORM** to manage a **PostgreSQL database**, while integrating Socket.IO for live user presence and messages.
- Provided a seamless experience for the user with an AI-powered feature that scans their schedule screenshot

PostureMaxx | Swift, iOS, VisionKit, AVFoundation

March 2025

- Secured an award at VITAL's Hackathon** (out of 15 teams) by spearheading the 12-hour 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 Vision and AVFoundation 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 within 48 hours and 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.
- Constructed using React and Next.js, used Git for version control across frontend, backend, and UX design.

INTERESTS

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