

Alan Tai

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

EDUCATION

Northeastern University

Aug. 2024 – May 2028

Bachelor of Science in Computer Science, Minor in Economics

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, Swift, HTML/CSS, LaTeX

Technologies: React, NextJS, Node, Tailwind CSS, PostgreSQL, VisionKit, AVFoundation, MediaPipe, SwiftUI, Racket

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

EXPERIENCE

Teaching Assistant (CS2000)

Aug. 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 and office hours, tailoring instruction to address questions and assisting in problem-solving.
- Assessing student coursework and delivering detailed feedback to improve code quality, structure, and readability.

Web Developer

Jul. 2025 – Present

FirstByte

Boston, MA

- Building a full-stack program management system using **Next.js**, **Prisma**, and **Supabase**, featuring user authentication (SSO with NEU accounts), program content storage (workshops, tasks, files), and attendance.
- Improving website functionality and user experience by resolving complex issues with UI components and animations for a more polished and responsive interface.
- Direct contact management and updates for the website, ensuring an up-to-date professional public presentation.

PROJECTS

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

Jul. 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, which automatically adds new courses to the database, and enrolls the user.

PostureMaxx | *Swift, iOS, VisionKit, AVFoundation*

Mar. 2025

- Spearheaded a team-driven effort to develop a real-time posture monitoring iOS app that helps users prevent chronic pain by detecting and alerting them to poor posture.
- Utilized a real-time pose detection algorithm using Apple's Vision and AVFoundation frameworks to compute shoulder-to-neck angles. Implemented temporal smoothing by averaging landmark positions over a rolling window to reduce jitter and improve tracking stability.
- Awarded at VITAL's Hackathon out of 15 teams** for the successful implementation of complex on-device machine learning in a real-time health tool, developed in under 12 hours.

NUGuessr | *TypeScript, React, Node.js*

Feb. 2025

- Led a team to build an interactive, GeoGuessr-inspired game tailored to help new and transfer students gamify their learning of the Northeastern campus layout.
- Constructed using React and Node.js, used Git for version control across frontend, backend, and UX design.
- 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.

INTERESTS

Lifting, Rubix Cube, Rock Climbing, Restaurants, Disney, Video Games, Hiking, Running