

# Alan Tai

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

## EDUCATION

### Northeastern University

August 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, 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