Brian Zheng

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Education

Massachusetts Institute of Technology | 4.7 GPA

September 2022 — May 2025

Bachelor of Science in Computer Science

Cambridge, MA

Coursework: Software Design, Data Visualization, Design and Analysis of Algorithms

Skills

Programming Languages: Python, TypeScript, JavaScript, HTML, CSS, Java, C

Technologies: Next.js, React, Redux, Node.js, XML, JSON, Git, Tableau

Experience

MIT CAVE Lab

May 2024 — Present

Full Stack Developer Intern

Cambridge, MA

- Developed web app that enables users with minimal coding experience to create data-visualization web apps.
- Improved accessibility by implementing on-screen keyboard using **React**, **Redux**, and **JavaScript**.
- Created support for users to include height in their map features, enhancing spatial data visualization.

MIT Computer Science and Artificial Intelligence Laboratory (CSAIL)

May — September 2023

Full Stack Developer Intern

Remote

- Developed web app to automatically label and sort thousands of data points onto an intuitive canvas.
- Optimized XML parser using **Python** to speed up the pipeline to update our dataset by **99%**.
- Implemented features to enhance users' data visualization experience using **React**, **Redux**, and **TypeScript**.

Projects

Portfolio | Next.js, React, TypeScript, HTML, CSS portfolio-brianzheng205.vercel.app

June 2023 — Present

- Developed interactive website to display my projects and experiences with aesthetic and intuitive UI.
- Implemented reusable and dynamic **React** components to organize codebase and simplify development.

Decaf Compiler | Rust

February — May 2024

- Implemented compiler that efficiently translates thousands of lines of Decaf code to Assembly code.
- Implemented optimizations such as dataflow algorithms to increase compiler speed by over 100%.

The LLC Next Door | Svelte, JavaScript, HTML, CSS, Tableau

April — *May 2024*

cammyt5.github.io/eviction-depiction

- Created narrative visualization to show the effects that corporate property ownership has on Boston housing.
- Implemented table with sorting feature to display home ownership rates and population for various cities.
- Calculated and plotted home ownership rates of over 50 municipalities using **Tableau**.

Pokerbots | Python January 2024

- Designed a program to take advantage of other programs' strategies with a **75%** win rate.
- Iterated on design to improve strategy, ensuring that more recent versions could beat previous versions.

Bounce | Next.js, React, TypeScript, HTML, CSS main.d2ngor7ea7fphp.amplifyapp.com

June — September 2023

- Developed web app to help college students organize their classes, work, and groceries.
- Implemented a navigation bar and loading screen, enhancing user access to Bounce's diverse pages.
- Improved UI by animating collapsible text boxes and creating an appealing color theme.