

HAORAN CHENG

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Education

Brandeis University, Waltham, MA

Sep 2021 – June 2025

Bachelor of Science in Computer Science / Bachelor of Art in Anthropology

CS Major GPA: 4.0

Awards: Dean's List (Fall 2022 - present)

Coursework: Data Structure, Natural Language Processing, Software Engineering, Information Visualization, Object-oriented programming in Java, Machine Learning in Python, Web Application Development, Algorithm Design

Experience

Zbyte Technology | Data Warehouse Startup

May 2023 – Sep 2023

Technical Product Manager Intern

Hangzhou, China

- Designed a **LLM - Dataset** chat app's architecture with PM director, in which user could upload private datasets enabling LLM chat app response more accurately to domain-specific inquiries.
- Maintained and fixed 150+ detailed errors in reusable **React** components for a web-base Data Warehouse while communicate with UI designers for "designer review".
- Drafted and perfected the documentation for a Data Warehouse, including Data Types, 50+ SQL Commands, and 10+ Build-in Functions.
- Published 3 articles, each attracts 5k+ reads for the company's tech blog; including two Analysis of Forrester and G2's review on Cloud Data Warehouse.

Branda | Brandeis Campus App

Jan 2023 – present

Software Engineer

Waltham, MA

- Collaborated in a **Agile** software development cycle, main responsible for improving the mobile UI/UX.
- Implemented a interactive calendar daily used by 1.6K student to keep track of school events, using **REST APIs** with **React Native** as the front-end. Utilized **Redis** to cache hotspot data, reducing the workload on main database.
- Managed database migration from Heroku to **Firebase** to meet user growth, implemented API touchpoints within the CI/CD pipeline for migration testing.

Brandeis University | Anthropology Department

Sep 2022 – Aug 2023

Research Assistant

Waltham, MA

- Collaborated with Anthropology professor Elizabeth Ferry on researching asset tokenization and cryptocurrencies as cultural phenomena.
- Interviewed 17 people who worked in Finance and IT industry during the summer; asking about their opinion on Gold Tokenization, Bitcoin, Blockchain, and Central Bank digital Currency in China. These finding support and enrich Professor Ferry's ongoing book writing about Gold in mining and finance.
- Weekly report based on searching for and reading news, social media reports, and journalistic and academic analyses.

Projects

Brandeis Course Evaluation Web Application | [link](#)

- Launched a course evaluation web app for Brandeis students to review and share courses, exceeding 200+ active users.
- Designed the whole UI with Figma and Implemented front end with **Javascript**, **HTML/CSS** in a **MERN** Stack.
- Devised independent testing script with **Supertest** and checked 20+ backend API endpoints.
- Designed and deployed a continuous color panel for rating score using **D3**.
- Conducted **code review** with other developers; cutting out redundant and debug.

Desktop LLM Chat Application over Dataset | [Git](#)

- Designed and developed a cross-platform desktop LLM Chat app, enabling chat over user-upload dataset; providing a more accurate response to domain-specific inquiries than ChatGPT.
- Utilized Embedding and Searching from **OpenAI API** to optimize Chat app's response. Split the user-upload file into small chunks; used OpenAI Embedding model to vectorize each chunk and save them into **Qdrant** database. Transform user query to vector using OpenAI, and then inquire the top match text chunk from Qdrant database using top_k value.
- Developed the frontend of the desktop app in **Tauri** and implemented **React** components with **Typescript** and **Material UI**.
- Achieved internationalization for Chinese using **i18next**.

Technical Skills

Programing Languages: Python, Java, JavaScript, Typescript, Linux, Shell, Unix, C++, Swift, HTML, CSS

Frameworks: React, Node.JS, Express.JS, Svelte, Docker, Kafka, Kubernetes

Database and DevOps: PostgreSQL, MongoDB, DynamoDB, MySQL, SQLite, AWS, Github, Gitlab

Other: Figma, OpenAI API, Excalidraw, Trello, REST api, HTTP, SOAP, communication skills