

Mingli Zhang

Green Card Holder, Program Finished Early, Available Immediately

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Work Experience

Freelance

Chapel Hill, UNC

Lead Software Developer

Jan 2023 - Sep 2023

- Led a team of 6 undergraduate developers to create a sales representative management platform that received **200+ users** from the first launch week.
- Employed a **serverless** approach, leveraging **HTML**, **CSS**, **VanillaJS**, and **WebPack** for the frontend, along with **Firebase** to manage **hosting**, **authentication**, and **NoSQL** database management
- Transitioned the project to **React** post-launch to enhance user experience and performance.
- Introduced release management processes and automated deployment through **Github**, resulting in improved collaboration and efficient delivery.
- Conducted weekly **scrum meetings**, **code reviews**, and **tech talks** to ensure task transparency, on-time deliveries, and knowledge sharing for accelerated development.

Cymantix

North Carolina (hybrid), USA

Software Engineer

Oct 2021 - Feb 2023

- Collaborated with a team of five developers to create a **full-stack SaaS machine-learning driven platform** that integrated a WebRTC video conferencing app, an information retrieval app, and a core identity API. The platform played a vital role in securing seed-round funding.
- Investigated using **Scikit-learn** of **Hierarchical clustering** as a replacement for the **K-Means**, reducing computation overhead by **10%-60%**.
- Incorporated **Microsoft Azure** into our platform, enhancing login options and facilitating seamless secured data transfer between our data retrieval app and Microsoft's cloud storage.
- Refactored codebase from **HTML**, **CSS**, and **in-line JavaScript** to **Next.js**, resulting in improved readability and **20%** reduction in code redundancy.
- Optimized real-time news analysis process on the data retrieval platform using **multi-processing** and **Socket.io**, achieving a **90%** acceleration.
- Strengthened the critical data update pipeline with **Bash script**, **Python**, and **CronJob**, ensuring reliable and up-to-date PubMed data

IBM

North Carolina (remote), USA

Full Stack Developer Intern

May 2021 - Aug 2021

- Enhanced user experience on a development environment management platform for **12000+** IBMers each month by implementing intuitive improvements based on user feedback.
- Rapidly acquired proficiency in **NextJS**, **SailsJS**, and **MongoDB** within a week, enabling independent code contributions after two weeks.
- Streamlined administrative content activities, resulting in faster content updates and a reduction of **20+** redeployments per week for developers.
- Co-founded an automated validation service with a fellow intern using **SailsJS** to simplify employee database maintenance, saving **three months'** worth of manual operations annually.
- Collaborated effectively with cross-functional team members, including product managers, fellow developers, mentors, and UI/UX design engineers.

University Projects

SplinterDB

North Carolina, USA

UNC - Chapel Hill

Jan 2023 - Aug 2023

- Explored the area of Key-Value store for modern solid state storages by working closely with researchers from VMWare on the **open source** project.
- Optimized SplinterDB's cache lookup table using **C** to support insufficient memory in extreme cases such as Intel's SGX1.
- Composed a literature survey concluding all I have learned about Key-Value store systems and presented my work and the results.

Easy Access

North Carolina, USA

UNC - Chapel Hill

Feb 2022 - Apr 2022

- Collaborated with two classmates to improve on an existing project to help high school students with college applications.
- Communicated with our client and mentor weekly to report our progress and fulfill clients' requests.
- Restructured the back-end database schema for better scalability and data management efficiency.
- Transitioned the database from **Firebase** to **SailsJS** and **MongoDB**.
- Documented the entire project structure, providing clear guidelines for future development teams to build upon and improve.
- Remodeled the **React** code from **5** large JavaScript files to over **30** component files for readability and reusability.

Education

University of North Carolina at Chapel Hill

North Carolina, USA

Master's of Science in Computer Science

Aug 2022 - May 2023

Bachelor's of Science in Computer Science and Mathematics

Aug 2018 - May 2022

- **Graduated GPA: 3.9/4.0. Undergraduate GPA: 3.8/4.0**, Dean's List from 2018-2022.
- **Courses:** Advanced Operating System, Advanced Machine Learning, Modern Web Dev, Algorithms and Analysis, Database, and Digital logic
- **Research:** Information Retrieval and Data Visualization (Undergraduate); Algorithm Visualization, and Key-Value Store (Master's).

Skills

Coding	JavaScript, SQL, Python (Pandas, TensorFlow, NumPy, Scikit-learn. etc.), HTML/CSS, C/C++, \LaTeX , Shell (Bash/Zsh), Java
Technologies	Next/React, React Native, Flask, JQuery, Microsoft Azure, Firebase, Linux, Tableau, CronJob, Elasticsearch
Soft Skills	Empathy, Communication, Time Management, Teamwork, Problem-solving, Documentation, Humor.