Mingli Zhang

Graduated Early, Available Immediately

919-274-5562 | minglizhang2000@outlook.com | www.minglizhang.com | github.com/MingliZhang | linkedin.com/in/mingli-zhang/

Education

University of North Carolina at Chapel Hill — *North Carolina, USA*

BSMS in Computer Science | BS in Mathematics — *Aug 2018 - May 2022(BS) - Aug 2023(MS)*

- **Undergraduate GPA: 3.8/4.0**, Dean's List from 2018-2023
- **Courses:** Advanced Operating System, Advanced Machine Learning, Digital logic, Algorithms and Analysis, Database, and Modern Web Dev
- **Research:** Information Retrieval and Data Visualization (Undergraduate); Algorithm Visualization, and Key-Value Store Research (Master's).

Work Experience

Cutco/ChampionPDI — *Chapel Hill, UNC*

Tech Lead / Product Manager — *Jan 2023 - Present*

- Led a team of 6 undergraduate developers to create a sales representative management platform that received **200+ users** from the first launch week.
- Designed the project to use the **serverless** approach for faster development lifecycles and lower learning curve.
- Used **HTML**, **CSS**, **VanillaJS** and **WebPack** for the web frontend, and **Firebase** to manage hosting, authentication, and a NoSQL database.
- Transitioned to using **React** for the front end after the initial release for a faster user experience.
- Introduced the release management process for better collaboration and created automated deployment using **Github Actions**.
- Held weekly scrum meetings and code reviews to ensure all team members were transparent with their tasks and could deliver on time. Also held **tech talks** to introduce new technologies and tools for faster development process.

Cymantix — *North Carolina (hybrid), USA*

Software Engineer — *Oct 2021 - Feb 2023*

- Engineered, with a team of five developers, 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 crucial role in the company securing seed-round funding.
- Explored with researchers and developers on the team to replace the **K-Means** algorithm with **Hierarchical clustering** to reduce redundant computation overhead.
- Incorporated **Microsoft Azure** into our platform per our client's request, providing more flexible login choices and enabling seamless secured data transfer between our data retrieval app and Microsoft's cloud storage.
- Refactored the codebase and transitioned from pure **HTML**, **CSS**, and **in-line JavaScript** to **Next.js**
- Parallelize our data retrieval platform's real-time news analysis process using **multi-threading** and **Socket.io**, leading to a **90%** acceleration.
- Strengthened our critical data update pipeline using **Bash script**, **Python**, and **CronJob**, increasing reliability and ensuring our Pubmed data is always up to date.

IBM — *North Carolina (remote), USA*

Full Stack Developer Intern — *May 2021 - Aug 2021*

- Improved user experience on a development environment management platform that supports **2000+** IBM developers each month. The improvements are based on user feedback to provide a more intuitive experience.
- Learned **NextJS**, **SailsJS**, and **MongoDB** in a week and started contributing to the code base independently after two weeks.
- Streamlined administrative content activities to reduce workload for developers, resulting in faster content updates and **20+** fewer required redeployments per week.
- Founded an automated validation service with a fellow intern using **SailsJS** that simplifies maintaining the employee database, reducing **3 months'** worth of manual operations each year.
- Collaborated closely with all other team members, including the product manager, other developers, my mentor, and the UI/UX design engineer.

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.
- Optimized SplinterDB's cache lookup table using **C** to support insufficient memory issues in extreme cases such as Intel's SGX1.
- Written 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.

Skills

Programming Python (Pandas, TensorFlow, NumPy, Scikit-learn. etc.), C/C++, HTML/CSS, JavaScript, SQL, Java

Miscellaneous Linux, Shell (Bash/Zsh), LaTeX, Tableau, Microsoft Azure, Firebase, Next/React, React Native, Flask, JQuery, CronJob, Elasticsearch

Languages English (Professional Proficiency), Mandarin (Native Proficiency)