

Mingli Zhang

Green Card Holder, Program Finished Early, Available Immediately

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Education

University of North Carolina at Chapel Hill

Master's of Science in Computer Science

Aug 2022 - Aug 2023

- **Graduated GPA: 3.9/4.0.**
- **Courses:** Advanced Operating System, Advanced Machine Learning, Digital Logic.
- **Research:** Key-Value Store with researchers from VMWare using **Linux** and **C**.

Bachelor's of Science in Computer Science and Mathematics

Aug 2018 - May 2022

- **Undergraduate GPA: 3.8/4.0**, Dean's List from 2018-2022.
- **Courses:** Modern Web Dev, Algorithms and Analysis, Files and Database, 2D Computer Graphics, Quantum Computing.
- **Research:** Web development and mobile development in health using **React**, **React Native**, and **Flask**.

Work Experience

ChampionPDI

Created a powerful sales representative management platform for Cutco.

Jan 2023 - Sep 2023

Lead Software Developer - Freelance

North Carolina (hybrid), USA

- Led a team of 6 developers to successfully launch a sales representative management platform, gaining 200+ users in the first week.
- Developed a web application using **HTML**, **CSS**, **VanillaJS**, **Webpack** for frontend and **Firestore** backend, delivering a usable product within just 2 months.
- Transitioned the project to **React** post-launch, resulting in a 60% reduction in database queries and 50% faster loading speed.
- Introduced release management processes and automated deployment through **Github**, saving 4 hours weekly in resolving code conflicts and rolling out bug fixes.
- Initiated weekly scrum meetings, code reviews, and tech talks, reducing learning costs and enabling all developers to contribute quality code after just 1 month.

Cymantix

A SaaS tech startup integrating machine learning with data analytics and information retrieval.

Oct 2021 - Feb 2023

Software Engineer

North Carolina (hybrid), USA

- Created a **full-stack machine-learning-driven data analytics platform** in a global team of 5 engineers, securing seed-round funding.
- Investigated replacing **K-Means** with **Hierarchical clustering**, reducing computation overhead and user wait time by 10%-60%.
- Integrated **Microsoft Azure** into our platform, providing login options and secure data storage from Microsoft's cloud. Resulted in a cost-effective transition for users and gained 2 non-profit organizations as clients within 1 week.
- Resolved **communication issues** between engineering and business teams, improving pitch presentations and acquiring 3 additional clients.
- Refactored codebase to **Next.js**, enhancing code readability and 20% reduction in redundancy.
- Optimized real-time news analysis using **multithreading** and **Socket.io**, decreasing user wait time by 90%.

IBM

Worked on IBM's internal platform that provisions and customizes live demo environments

May 2021 - Aug 2021

Full Stack Developer Intern

North Carolina (remote), USA

- Enhanced user experience based on user feedback using **NextJS**, resulting in a monthly user base expansion to over 12,000+ IBMers.
- Streamlined administrative content activities, resulting in faster content updates and a reducing 20+ redeployments weekly for developers.
- Co-founded an automated validation service with a fellow intern utilizing **SailsJS** to simplify database maintenance, saving 3 months' of manual operations annually.

Major Projects

One Pixel Attack Defense

Defense against a speical adversarial attack on CNN networks

Aug 2022 - Dec 2022

UNC - Chapel Hill

North Carolina, USA

- Trained **one-pixel attack** on image recognition **CNN**, achieving 10% success rate using limited computation power.
- Implemented **seam carving** in **Python** for a pre-process resizing operation, which reduced the attack success rate by 50%.
- Presented the attack and our defense strategy to a class of 40 students and was awarded the most engaging out of 10 presentations.

Easy Access

An existing platform to help high school students and counselor in college application process.

Feb 2022 - Apr 2022

UNC - Chapel Hill

North Carolina, USA

- Restructured the backend database using **SailsJS** and **MongoDB**, reducing data redundancy by 30% and transaction by 50%.
- Remodeled the frontend **React** code and broke down to reuseable components, shrinking the project size by 20%.

Skills

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