

# Mingli Zhang

Green Card Holder, Program Finished Early, Available Immediately

919-274-5562 | [minglizhang2000@outlook.com](mailto:minglizhang2000@outlook.com) | [www.minglizhang.com](http://www.minglizhang.com) | [github.com/MingliZhang](https://github.com/MingliZhang) | [linkedin.com/in/mingli-zhang/](https://www.linkedin.com/in/mingli-zhang/)

## 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**, **Flask**, and **MySQL**.

## 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

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