Lianhao Zheng

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EDUCATION

Northwestern University

Evanston, IL

Concurrent B.A. and M.S. in Computer Science (GPA 3.89/4.00)

June 2026

- Relevant Coursework: Data Structures, Algorithms Design, Databases, Distributed Systems, Machine Learning, Scalable Software Architectures, Operating Systems, Software Quality Testing, Networking, System Security
- Activities: Dean's List (6/6) | QuestBridge Scholar | LEDA Career Fellow | NU Bioscientist Grant Award | CodePath Tech Fellow | Meta ABCS Fellow | Society of Asian Scientists and Engineers (Head of Cultural Events)

TECHNICAL SKILLS

Languages: Python, C, C++, TypeScript, JavaScript, Bash, SQL, HTML, Java, Rust, Go

Frameworks: Git, Node, Express, React, React-Native, MySQL, JUnit **Tools**: AWS, Docker, Expo Go, Figma, MongoDB, Firebase, Jira, Gradle

PROFESSIONAL EXPERIENCE

Software Engineer Intern

June 2024 - Aug. 2024

 ${\it Chicago, IL}$

- Built a Next.js, React, and TypeScript full-stack application centralizing 200+ workout templates, optimizing training plans for increased athlete performance
- Implemented front-end components using Radix UI, Lucide-React, and Styled Components to streamline uploading process for workout .xlsx templates and photos
- Performed extensive manual testing with **Postman** to ensure seamless **REST API** connectivity with the Redis and PostgreSQL databases prior to product deployment
- Prioritized prompt release of deliverables through Jira, weekly sprints, and daily stand ups

Data Science Intern

June 2023 – Aug. 2023

The Lane Lab (Mentor: Keara Lane, PhD)

Evanston, IL

- Developed a **Python3** and Fiji-ImageJ based pipeline, leveraged Globus Data Management and High Performance Computing Clusters (**HPC**) to classify 9000+ images of macrophages resulting in 78% improvement on accuracy
- Utilized Bash Scripts and SLURM to automate workflows for parallel image processing and analysis with Deep Learning Models on HPC, utilizing Git and GitHub version control to facilitate codebase collaboration

Undergraduate Teaching Assistant

Sep. 2023 – Present

Northwestern University Department of Computer Science

Evanston, IL

- Conducted code reviews and held office hours for 400+ students in Fundamentals of Computer Programming, Introduction to Web Development, and Scalable Software Architecture
- Collaborated with Professors to give feedback on student code and examinations

Projects

OHours | React, Vite, Tailwind CSS, Shaden, Firebase

ohours.web.app

- Engineered an intelligent office hour queuing system with a Non-preemptive Static Priority Scheduler to help teaching assistants more efficiently manage questions with reduced wait time by 40%
- Generated unit tests with **Jest** and **React Testing Library**, utilizing **Vitest** for dependency mocking to enhance test coverage, accuracy, and component reliability

CrowdScope | React Native, Expo Go, Git

- Created a mobile app delivering real-time building occupancy information through crowdsourced data
- Led a pilot study on 100+ users, improved visual component of building profile and user login from user feedback, increasing user satisfaction scores by 30%

Mask Up | FaceMesh Detection API, Vue, P5.js

mask-up.glitch.me

• Architected a Face tracker leveraging the Face mesh detection API to create masks following user movements

Web Portfolio | React, Tailwind CSS, Netlify

lianhaoz.netlify.app

• Leveraged Three.js and React Three Fiber for immersive 3D graphics and Framer Motion for animations