# Lianhao Zheng

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# EDUCATION

## Northwestern University

Evanston, IL

Concurrent B.A. and M.S. in Computer Science (GPA 3.86/4.00)

June 2026

- Relevant Coursework: Data Structures & Algorithms, Object Oriented Programming, Artificial Intelligence, Scalable Software Architectures, Operating Systems, Software Quality Testing
- 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

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

 $Olympus\ LLC$ 

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