Lianhao Zheng

Brooklyn, NY | (646)-920-6854 | lianhaoz06@gmail.com | linkedin.com/in/lianhao-zheng-a56030207 | github.com/LianhaoZ

EDUCATION

Northwestern University, Weinberg School of Arts & Sciences

Evanston, IL

Concurrent B.A. and M.S. in Computer Science

Sep 2022 - Jun 2026

- GPA: 3.81/4.00 | Dean's List (3/3) | QuestBridge Scholar | LEDA Career Fellow | NU Bioscientist Grant Recipient
- Relevant Coursework: Object-Oriented Programming, Data Structures & Algorithms, Generative Methods, Artificial Intelligence, Design & Analysis of Algorithms, Computer Systems

SKILLS

Programming Python, C++/C, Bash, HTML/CSS, JavaScript, Git, Racket

Software/Tools React.js, Three.js, p5.js, Node.js, Tailwind CSS, Unix, Unity, Visual Studio Code

Design Canva, Figma, Glitch, Adobe Photoshop, and Premier Pro

PROFESSIONAL EXPERIENCE

Northwestern University Department of Computer Science

Evanston, IL

Undergraduate Teaching Assistant

Sep 2023 - Present

- Advised 400+ students in Fundamentals of Computer Programming class for 6-10 hours weekly in office hours
- Provided feedback on student code and examinations to Professor Connor Bain

The Lane Lab at Northwestern University

Evanston, IL

Undergraduate Researcher

Jun 2023 - Aug 2023

- Utilized Deep Learning algorithms to achieve a 78% accuracy rate in automating classification of over 9000 tiff images of macrophages during Salmonella Typhimurium infections
- Designed a <u>Python3</u> and <u>Jython/Fiji ImageJ</u>-based pipeline, leveraged Globus Data Management and High Performance Computing Clusters (HPC) to streamlining bioimage analysis workflows
- Developed <u>Bash Scripts</u> to automate workflows for parallel image processing and analysis on HPC, utilizing GitHub version control to facilitate collaboration on the codebase
- Collaborated with researchers to conduct in-depth literature review on the *Applying Deep Learning Algorithms To Track Cells In Time Lapse Microscopy* Project, to gain insights into the existing research landscape

PROJECTS

Personal Website (React.js, Three.js, HTML, Tailwind CSS, Netlify)

- Utilized <u>Three.js</u> and <u>React Three Fiber</u> to develop immersive 3D graphics, <u>Framer Motion</u> for animations, and Tailwind CSS for more visually appealing design
- Integrated responsive techniques like email functionality through website forms and employed optimization techniques like Suspense and Preload for fast loading

Mask Up (Vue.js, P5.js, HTML/CSS, FaceMesh)

- Developed a Face tracker that utilizes <u>Face mesh</u> detection, allowing the creation of masks that dynamically changes based on user movements
- Employed <u>P5.js</u> and <u>Vue.js</u> to incorporate dynamic animations and interactive graphics, elevating the website's visual appeal and enhancing user interactivity

LEADERSHIP EXPERIENCE

Society of Asian Scientists and Engineers

Evanston, IL

Cultural Committee Lead

Sep 2023 - Present

- Organize 4+ cultural events and academic workshops quarterly to increase community building
- Manage a fundraiser that raised over \$250 to support organization initiatives

HackMIT
Team Lead
Oct 2022

- Coordinated tasks for fellow team members with focus on front-end development
- Created a website to manage a Climate Change Awareness Blog with Vue.js and HTML/CSS