Lianhao Zheng

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EDUCATION

Northwestern University

Evanston, IL

Bachelor of Arts in Computer Science, Minor in Data Science

Expected June 2026

- GPA: 3.81/4.00 | Dean's List (4/4) | QuestBridge Scholar | LEDA Career Fellow | NU Bioscientist Grant Award | Codepath Career Preparation Fellow
- Relevant Coursework: Data Structures & Algorithms, Artificial Intelligence, Design & Analysis of Algorithms, Computer Systems, Generative Methods

Experience

Above and Beyond Computer Science (ABCS) Fellow

Jan. 2024 - Feb 2024

Remote

- Meta
 - Selected as one of 100+ participants from across the US and Singapore to participate in Meta's 5-week Program • Attended weekly workshops focused on mastering the knowledge, skills, and mindsets for a successful technical interview in the industry
 - Focused on topics including arrays, strings, linked lists, time complexity, recursion, stacks & queues, hash tables, trees, heaps, and graphs

Undergraduate Teaching Assistant

Sep. 2023 – Dec. 2023

Northwestern University Department of Computer Science

Evanston, IL

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

Artificial Intelligence Research Assistant

June 2023 – Aug. 2023

The Lane Lab at Northwestern University

Evanston, IL

- Optimized Deep Learning models to accurately classify over 9000 tiff images of macrophages during Salmonella Typhimurium infections with a 78% accuracy rate
- Designed a Python3(Numpy, matplotlib, Pandas) and Jython/Fiji-ImageJ based pipeline, leveraged Globus Data Management and High Performance Computing Clusters (HPC) to streamlining bioimage analysis workflows
- Developed Bash Scripts to automate workflows for parallel image processing and analysis on HPC, utilizing Git and GitHub version control to facilitate collaboration on the codebase
- Conducted a comprehensive analysis of the current research landscape for Applying Deep Learning Algorithms To Track Cells In Time Lapse Microscopy Project, and presented in the Annual Undergraduate Research Symposium

Projects

Personal Website | React, Tailwind CSS, Netlify

- Utilized Three.js and React Three Fiber to develop immersive 3D graphics, Framer Motion for animations, and Tailwind CSS for more visually appealing design
- Integrated responsive design techniques and optimization techniques like Suspense and Preload

Mask Up | FaceMesh Detection API, JavaScript, Git

- Developed a Face tracker that utilizes Face mesh detection API to create masks that follows user movements
- Employed P5. is and Vue. is to incorporate animations and interactive graphics, elevating the website's visual appeal and enhancing user experience

Technical Skills

Languages: Python, C/C++, JavaScript, HTML/CSS, Bash

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

Libraries: Pandas, NumPy, Matplotlib