Ryan Zheng

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Education

University of Illinois Urbana Champaign, Bachelor of Science in Computer Science — Expected May 2028

- GPA: 3.91/4.0
- Relevant Coursework: CS 225 Data Structures and Algorithms, CS 233 Computer Architecture

Skills

Languages: Languages: Python (NumPy, Scikit-learn), C++, Rust, Java, SQL (SQLite), Bash

Technologies: Pytorch, Tensorflow, Linux/Unix, Git, Docker, Conda, AWS, Arduino, Raspberry Pi, Flask, Firebase, Raspberry Pi, Pygame

Relevant Experience

Software Engineer, Disruption Lab – Urbana, IL — February 2026 - Present

- Implementing a distributed Python framework to enable LLM inference across a heterogeneous fleet of legacy GPUs, transforming idle hardware into a functional compute cluster.

Course Assistant, MATH 257 (Applied Linear Algebra) – Urbana, IL — January 2026 - Present

- Facilitate biweekly office hours to help students connect linear algebra concepts to practical Python implementations (e.g., Markov matrices, least squares regression, and eigendecomposition)
- Support 2–3 lab sections per week for 200+ students, providing hands-off guidance to help students debug NumPy-based code and reason through problems independently

Project Lead, Sig:Robotics – Urbana, IL — September 2025 - Present

- Engineering a data acquisition pipeline to capture and preprocess multi-channel EMG signals via Arduino; implemented digital signal processing (DSP) techniques to filter noise and extract features from raw neuromuscular data
- Designing a real-time ML pipeline to classify complex arm movements from multi-channel EMG data into discrete control signals for robotic arm manipulation

Research Intern, University of Tennessee TENNLab – Knoxville, TN — June 2024 - May 2025

- Architected a custom Python/Pygame visualization suite to replace a legacy Lua-based rendering engine that lacked macOS support.
- Improved autonomous navigation efficiency by 35% in the F1Tenth simulator through applying evolutionary algorithms and reinforcement learning to Spiking Neural Networks and refining heuristic functions
- Researched evolutionary optimization of Liquid State Machines for lightweight and real-time radio signal modulation classification under Professor Catherine Schuman

Select Projects

Server-based Chat Application — October 2025 - December 2025

- Developed the backend for a locally hosted chat application that handles user creation/authentication, group chats, asynchronous message queuing/processing, and local caching features.
- Tools Used: Rust, SQLite, AWS

EcoQuest — July 2024 - November 2024

- Engineered backend for a computer vision + LLM app that classifies recyclable materials and provides accessible recycling guidance; awarded Runner-up in Congressional App Challenge 2024
- Tools Used: Python, Tensorflow, Flask, Firebase, Cloudflare

Involvement

Leadership

- President & Founder, Science National Honor Society, Science Hill High School — December 2023 – May 2025
- President, Sustainability Club, Science Hill High School — November 2023 – May 2024