

Yanni Zhuang

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EDUCATION

University of Illinois Urbana-Champaign, Grainger College of Engineering

May 2026

Bachelor of Science in Computer Science, Minor in Math

Relevant Coursework: Machine Learning, Applied Parallel Programming, Systems Programming, Algorithms, Computer System Organization, Numerical Analysis, Probability and Statistics, Linear Algebra

WORK EXPERIENCE

Software Engineering Intern

May 2024 – August 2024

Modern Treasury

New York, NY

- Designed and implemented new data ingestion infrastructure, achieving a 275x throughput improvement
- Developed new input validation system, resulting in 30x performance gain and enhanced observability
- Identified and optimized bottlenecks in data ingestion system by leveraging profiling tools like Datadog

Course Assistant

August 2023 - Present

University of Illinois Urbana-Champaign, Computer System Organization

Urbana, IL

- Graded homework and assessments efficiently for accuracy and comprehension

University of Illinois Urbana-Champaign, Introduction to Computer Science II

Urbana, IL

- Provided personalized assistance through office hours to 1500+ students
- Aided in the development of new machine problems and course material

Undergraduate Research Assistant

June 2023 – Present

Parallel Programming Laboratory

Urbana, IL

- Assisted with development of parallel I/O library for Charm++ to speed up read and write operations by 400%
- Constructed benchmarks to verify functionality of non-shared memory and shared memory Charm++ builds

ORGANIZATIONS

Technical Development Lead | TypeScript, SvelteKit, NestJS, MongoDB, AWS

February 2023 – October 2023

Reflections/Projections Development Team

- Architected a robust QR Code-based attendance tracking system to track 1,900+ attendees
- Interfaced with AWS S3 to support resume upload, storage, and distribution from attendees to corporate sponsors
- Designed and deployed a responsive schedule component and staff dashboard using Svelte and SvelteKit

AMD Security Software Engineer | PAPI, AMDuProf, HPCs, Python

February 2023 – August 2023

Disruption Lab at Gies

- Conceptualized a SVM learning model to accurately classify malware and non-malware programs
- Employed tooling such as PAPI and AMDuProf to collect data from various HPCs while running malware

SpaceShot Avionics Software Developer | HTML, TypeScript, three.js

August 2022 – February 2023

Illinois Space Society

- Collaborated on a 5-person team to develop a full-stack rocket rendering application
- Migrated and refreshed the visual designs of portions of the Ground Station Software webapp with Bootstrap

PROJECTS

PrairieCal | HTML, CSS, JavaScript, React, ExpressJS, MongoDB

February 2023 – April 2023

- Conceptualized a full-stack application to automatically store PrairieTest exam reservations into calendar services
- Scraped and parsed user's PrairieTest exam scheduling page data into iCal format for cross-platform compatibility
- Implemented authentication through OAuth tokens to ensure integrity of user data

Chessboard Digitizer | Python, NumPy, OpenCV

March 2022 – November 2022

- Independently conceptualized and deployed a chessboard digitizer
- Implemented a lens correction algorithm to maximize camera clarity and precision
- Utilized OpenCV to perform piece analysis to track movement and ensure move legality in real time

Languages/Libraries: C++, Java, Python, TypeScript, JavaScript, Ruby on Rails, ExpressJS, NestJS, Svelte

Technical Skills: Git, Docker, RESTful Web Services, SQL, OpenCV, TensorFlow, MongoDB, Amazon Web Services