Franklin Zhang

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EDUCATION

University of Illinois Urbana-Champaign   August 2023 – May 2026
BS in Mathematics and Computer Science; GPA: 4.0; James Scholars Honors Program
- Relevant Coursework: Numerical Analysis, System Programming, Database Systems, Algorithms, Abstract Linear Algebra (Honors), Statistics and Probability II

University of Tennessee, Knoxville – Transferred   August 2022 – May 2023
BS in Computer Science; GPA: 4.0; Chancellor's and Cook Grand Challenge Honors Programs

HONORS/AWARDS

Putnam Math Competition – Honorable Mention (Top 100, score of 51)   December 2023
USA Junior Math Olympiad (USAJMO) Qualifier (10th grade)   Spring 2020

RELEVANT EXPERIENCE

University of Illinois Urbana-Champaign   January 2024 – Present
Undergraduate Research Assistant
- Enhance LLM code generation by exploring novel approaches to language model decoding using Python
- Generate syntactically valid Java code using LLMs by creating and enforcing a Java grammar and developing comprehensive unit tests to ensure code correctness

CME Group   May – August 2024
Software Engineer Intern
- Developed a feature usage evaluation system for Java trading applications, automating log analysis for over 1,000 users to enhance monitoring and usage insights
- Designed and built a Java UI and XML database to analyze and visualize user preferences, utilizing XQuery and database APIs
- Wrote Python scripts with pandas to parse and analyze 12 GB of log files, transforming underutilized user-by-user action data into actionable insights that inform decisions on key application features

University of Tennessee   October 2022 – July 2023
Undergraduate Research Assistant
- Conducted undergraduate research that continued as an REU in the summer
- Trained NVIDIA Jetson autonomous robots to accurately navigate environments with Python and AI object detection models
- Led a team of four students in enhancing the robots and expanding their autonomous driving capabilities
- Engineered a cost-efficient motor control scheme using GPIO and Python, reducing overall robot cost by 35%
- Delivered well-received presentations on robot training, including at a workshop attended by 20+ professors

OTHER EXPERIENCE

CS 374 (Algorithms) Course Assistant, UIUC   August 2024 – Present
- Assisting with weekly office hours, discussions, and grading

ACM@UIUC   September 2023 – Present
- Admin for SIGma (CS theory student interest group) – delivering presentations to peers on topics in math and algorithms
- Participant in SIG-ICPC (competitive programming) – Silver Medal at ICPC Mid-Central USA Regional Contest

Discover Citadel   April 2024
- Participated in a selective 2-day introduction to Citadel/Citadel Securities and quantitative finance

PROJECTS

Directle   Spring 2024
- Worked on a team of 4 to create a word game full-stack website using Word2Vec embeddings with Rust for model training
- Implemented a PostgreSQL database on Google Cloud Platform, connected to Rust server and React/Typescript frontend

SKILLS

Python, C++, PyTorch, SQL, Java, JavaScript, Git, Vim, Linux environment