Junhao Zhang

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EDUCATION

University of Illinois at Urbana-Champaign **Expected Graduation: May 2029**
Bachelor of Science in Mathematics & Computer Science Cumulative GPA: 3.98/4.00
Bachelor of Art in Spanish

SKILLS

Technical Skills: Java, Python, Git, C, C++, HTML, CSS, JavaScript, Rust, Node.js, LaTeX, Unity, Blender
Languages: English (Native), Chinese (Native), Spanish (Advanced Conversational Proficiency)

RELEVANT COURSEWORK

Computer Science: **CS 225** (Data Structures & Algorithms in C++), **CS 128** (Intro to C++), **CS 357** (Numerical Methods)
Math: **Math 314** (Introduction to Higher Mathematics), **Math 257** (Linear Algebra with Computational Applications)

EMPLOYMENT AND RESEARCH

CS128H | Course Assistant | Urbana, IL **January 2026 – Present**
- Host weekly office hours and provide one-on-one tutoring to clarify course concepts
- Design lecture presentations, develop educational videos, and create supplemental learning materials
- Write, review, and maintain homework assignments and programming exercises
- Collaborate with instructors to refine course content and improve learning outcomes

Paleopollen Research Lab | Student Researcher | Urbana, IL **January 2026 – Present**
- Conduct fossil and modern pollen analysis, including identification of fossil Striatopollis pollen
- Utilize Segment Anything Model (SAM 2) to detect and process pollen grain images
- Process large microscopy datasets using CZI extractor, ndpi-tile-cropper, and custom Python pipelines

PROJECTS

RusTX | github.com/pranavpopuri/raytracing-in-rust | Urbana, IL **November 2025 – December 2025**
- Led a team of 3 to design and implement a ray tracer in Rust as a CS128 Honors final project
- Applied Rust's concurrency features to create a multi-threaded renderer optimizing render time from 10 minutes to 2 minutes
- Used the Rust ecosystem to import STL files to create complex renders

Europa Lang | github.com/cursorweb/europa-lang | Rochester, MN **September 2021 - Present**
- Implemented a dynamic programming language in Rust with a recursive descent parser
- Led a community of 4 maintainers, overseeing code reviews and feature proposals

FotoFindr (HackIllinois) | github.com/slothinthehat/fotofindr | Urbana, IL **March 2026**
- Developed a mobile app (team of 3) that indexes camera roll for natural-language search, and flags low-value images for deletion
- Built a full-stack system with Expo React Native (TypeScript), FastAPI, YOLO, DeepFace, Gemini API, and Snowflake

ACTIVITIES

University of Illinois Symphony Orchestra | Violinist | Urbana, IL **August 2025 – Present**
- Perform in an Orchestra of music performance majors as well as highly talented non-majors
- Hold concerts 3 times per semester, with a variety of repertoire including works by Brahms, Shostakovich, Mahler, and Beethoven

Volunteer Income Tax Assistant (VITA) | Volunteer | Urbana, IL **January 2026 – Present**
- Contribute to the completion of 300+ tax returns in the community by helping verify eligibility for VITA services
- Provide Spanish-English translation, supporting community members via phone

HONORS AND AWARDS

Dean's List **January 2026**

MadeWithReplit Hackathon 2nd Place **December 2022**
- Developed a multiplayer typing game using Node.js and Express in collaboration with a teammate

Minnesota Music Teachers Association (MMTA) Piano Contest Winner **2022, 2024**
- Prepared and performed a solo piano piece in a Minnesota-wide piano competition