

RICKY ZHANG

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EDUCATION

University of Florida

Gainesville, FL

Bachelor of Science, Computer Science and Mathematics

Aug 2023 – May 2027

Relevant Coursework: Data Structures & Algorithms, Operating Systems, SWE, Databases

GPA: 4.0

SKILLS

Programming Languages: C++, Java, TypeScript, Python, Typst, Bash, SQL, Rust

Frameworks/Libraries: Boost, ImGui, React, Spring Boot, JavaFX, .NET,

Tools/Platforms: Jira, Confluence, Postman, Kafka, RHEL, Docker, Doxygen, MongoDB, GCP, AWS

WORK EXPERIENCE

Software Engineering Intern (Pricing)

Jun 2025 – Aug 2025

Sumitomo Mitsui Banking Corporation

New York, NY

- Built and integrated a **cash-flow pipeline for interest rate swaps** with Spring Boot, Kafka, and RHEL
- Contributed to migration of C++ quant library components (futures, yield curves, swaps) to Java
- Achieved 30% faster Maven builds for pricer service and QA API by cleaning legacy technical debt

Technology Fellow

Sep 2024 – Dec 2024

Youth Civic Hub

New York, NY

- Refactored a Gatsby/GraphQL codebase for 4x faster builds and 80% lower hosting costs

Lead Developer

Nov 2023 – Nov 2024

Florida Community Innovation Foundation, Inc.

Gainesville, FL

- Led **Florida Resource Map** (FRM) web development, connecting social workers to 2000+ trusted resources
- Worked with SWE/CX/PR teams, contractors, and 7 charity partners from **planning to GA** in one year
- Promoted from intern to lead; coordinated standups, grooming calls, CI/CD with the MERN stack

Undergraduate Researcher

Feb 2024 – Aug 2024

Geoplexity Research Group

Gainesville, FL

- Devised C++/Nauty algorithms with Dr. Sitharam's group to detect rigid partial 3-tree elements
- Optimized constraint-graph roadmap computation for 60% speed improvements over hash map methods

Teaching Assistant

Jan 2024 – May 2025

University of Florida

Gainesville, FL

- Programming Fundamentals, Competitive Programming, Discrete Math, Calculus 2

INVOLVEMENT

Webmaster | UF Society of Asian Scientists and Engineers (SASE)

Jun 2024 – May 2025

- Organized **60+ attendee workshops** on API integration, SSG/SSR architecture, and industry practices
- Spearheaded a **team of 18** to develop a website with React Query, TanStack, Tailwind, and Turso
- Deployed a real-time stock market simulator using Bun Websockets to 60+ concurrent GBM attendees

PROJECTS

3D Game Engine (Battlebeyz) | C++, OpenGL, ImGui

May 2024 – Feb 2025

- Developed a **3D renderer** and **custom physics engine** from scratch using low-level graphics libraries
- Achieved improved heuristic-based simulation accuracy for **spinning tops** over existing physics engines
- Optimized architecture with multithreading, memory management, and performance profiling

Jane Street Puzzle Programs | Python, C++

Dec 2023 – Aug 2024

- Implemented algorithmic solutions for 7+ monthly Jane Street puzzles using mathematical modeling
- Leveraged state-space reduction, regression analysis, and image processing with common libraries

AWARDS/CERTIFICATIONS

Top 750 Putnam (2024), Akuna Options 201, NVIDIA Fundamentals of Deep Learning