Joel Daniel Rico

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EDUCATION

California State University, Fullerton

Fullerton, CA

Bachelor of Science in Computer Science

Aug. 2022 - May 2026

Relevant Coursework: Data Structures, Algorithm Engineering, Operating Systems, Discrete Mathematics

EXPERIENCE

Product Engineering Intern | Esri

May 2025 – Present

- Led the initial development of R language support in ArcGIS Notebooks by building the foundational Docker-based runtime environment.
- Validated the integration by identifying and resolving bugs, collaborating with senior engineers, and authoring user-facing sample notebooks to demonstrate key workflows.

Supplemental Instructor | CSU Fullerton

Aug. 2023 – Present

- Facilitated interactive and collaborative sessions to enhance students' comprehension of course material, resulting in a 10% average grade increase
- Reinforced computer science fundamentals such as data structures, programming paradigms, and object oriented programming
- Collaborated with the program director and faculty liaison to develop strategies for effectively integrating SI and tutor support within lecture and lab structures.

Software Engineer Fellow | Major League Hacking

June 2024 – Aug. 2024

- Contributed to Rust Analyzer, a Rust compiler front-end, by implementing a new client-side command to streamline the development workflow and improve codebase maintainability by removing outdated functionalities.
- Enhanced the new user experience by authoring comprehensive walkthrough and FAQ documentation to provide clear and accessible guidance.

Site Reliability Engineer Fellow | Major League Hacking

June 2023 – Sep. 2023

- Engineered a full-stack, open-source website using Python, Flask, and MySQL, and established a complete CI/CD pipeline for automated deployments with Docker, Systemd, and shell scripting.
- Implemented comprehensive system monitoring by configuring Prometheus for data collection and Grafana for alerting and visualization as part of an intensive 12-week SRE curriculum.

Research Assistant | CSU Fullerton

May 2023 – August 2023

• Developed an interactive website using the Mapbox API to visualize the correlation between foodborne illness outbreaks and coastal states.

Projects

Trends Analysis | Python, Rust

Jan. 2022 – June 2023

• Conducted a comprehensive analysis of user engagement by extracting data via the Discord API, identifying key trends in user activity, popular channels, and peak usage times.

TECHNICAL SKILLS

Languages: Python, Rust, C++, Java, R, JavaScript, TypeScript, SQL, Bash, HTML, CSS

Tools: Git, Docker, Flask, FastAPI, Svelte, SvelteKit, Astro, Tailwind CSS

Extracurricular

Association For Computing Machinery (ACM) | President, Board Member

Aug. 2022 – Present

- Oversaw all operations for a 2300-member organization, guiding a 50-person officer board to execute technical workshops, professional events, and community initiatives.
- Launched and managed the 'Node Buds' mentorship program, pairing over 50 students to foster skill development and increase member retention within the organization.
- Co-directed FullyHacks, securing 9 corporate sponsorships and managing event logistics for 400+ participants, achieving an 80% retention rate over the two-day event.