Joel Daniel Rico

joeldanielrico@csu.fullerton.edu | linkedin.com/in/joeldanielrico | github.com/jjoeldaniel

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
- Engineered a significant product enhancement by architecting and implementing R language support within ArcGIS Notebooks, utilizing a custom Docker image to create a scalable and robust runtime environment
- Spearheaded cross-functional initiatives by collaborating with senior engineers on technical design to define licensing and select core libraries for the new feature.

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a new client-side command to streamline the development workflow and improve codebase maintainability by removing outdated functionalities.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 geographical location.

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.
- Leveraged a Bidirectional Encoder Representations from Transformers (BERT) model to perform natural language processing on message content, successfully extracting relevant keywords and commonly used phrases.

TECHNICAL SKILLS

Languages: Python, Rust, C++, Java, Bash, JavaScript, TypeScript, SQL (Postgres, SQLite), R, 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.