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

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

Software Engineer Fellow | Major League Hacking — June 2024 – Aug. 2024
- Contributed to Rust Analyzer, a Rust compiler front-end for IDEs
- Implemented a client-side command to conveniently enable/disable LSP logging, improving development workflow
- Authored walkthrough and FAQ pages, providing clear guidance for new users
- Contributed to codebase maintainability by removing outdated functionalities

Production Engineer Fellow | Major League Hacking — June 2023 – Sep. 2023
- Completed 12-weeks of structured curriculum-based learning covering core Production Engineering topics, supplemented with events / workshops hosted by industry experts
- Created an open-source personal portfolio website template using Python, Flask, Jinja, MySQL, Nginx, and unittest
- Developed CI/CD deployment pipelines for Flask web servers utilizing Docker, Systemd, and shell scripting
- Configured system and container monitoring, alerting, and visualization using Prometheus and Grafana

Research Assistant | CSU Fullerton — May 2023 – August 2023
- Co-developed interactive website educating users on the correlation between foodborne illness outbreaks and coastal states

PROJECTS

Trends Analysis | *Python, Rust* — Jan. 2022 – June 2023
- Identified key trends and patterns in user activity, including peak hours of usage, most popular channels, and frequently used words and phrases
- Utilized a Bidirectional Encoder Representations from Transformers (BERT) model library to extract relevant keywords from Discord messages
- Extracted relevant data using Discord API and web scraping techniques to collect information on user activity, message content, and channel usage
- Visualized data using charts, graphs, and other visualization tools to highlight trends and patterns in user behavior

genius.py | *Python, Web Scraping* — Jan. 2023 – April 2023
- Python-based Genius API wrapper enabling users to search for and retrieve lyrics and other song-related data
- Published on Python Package Index (PyPI), resulting in over 15,000 downloads

TECHNICAL SKILLS

Languages: Python, Rust, C++, Java, Bash, JavaScript, TypeScript, SQL (Postgres, SQLite), HTML, CSS
Tools: Git, Docker, Flask, FastAPI, Svelte, SvelteKit, Astro, Tailwind CSS

EXTRACURRICULAR

Association For Computing Machinery (ACM) | *President, Board Member* — Aug. 2022 – Present
- Organized and led workshops, educating members on AI use cases, Natural Language Processing (NLP), full stack development, and data science concepts
- Co-organized a hackathon event, attracting over 400 applicants and 9 sponsors
- Collaborated with other club members to write open source software, contributing to the development of software tools and applications that benefited the community