

# 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- Contributed to codebase maintainability by removing outdated functionalities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

- 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

- Lead the largest ECS student organization at CSUF with over 50 officers and 2300 members
- 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
- Managed day-to-day operations including event planning and outreach