Joel Daniel Rico

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EDUCATION

California State University, Fullerton Fullerton, CA
Bachelor of Science in Computer Science *Aug. 2022 – Dec. 2026*

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

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
- Used Mapbox to visualize population density and outbreak data
- Attended faculty-led workshops, learning about various machine learning and data science concepts

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

keyphrases.rs | *Rust, NLP* March 2023 – Present
- Developed an open-source library for efficient and accurate extraction of keywords from large volumes of text
- Implemented Rapid Automatic Keyword Extraction (RAKE) algorithm

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 10,000 downloads
- Utilized Requests HTTP library to communicate with Genius REST API

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) | *Board Member, Contributor* Aug. 2022 – Present
- Organized and led workshops, educating members on AI use cases, Natural Language Processing (NLP), and data science concepts
- Co-organized a hackathon event, attracting over 150 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