Joel Daniel Rico

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CAREER OBJECTIVE

Aspiring Software Engineer with a passion for problem-solving and solution-based programming. Strong work ethic with proficiency in communication in team-based environments.

EDUCATION

California State University, Fullerton — Fullerton, CA
Bachelor of Science in Computer Science — *Aug. 2023 – Dec. 2025*

PROJECTS

JPass | *Python, Flask, Postgres, JavaScript, Vercel* — Feb. 2023 – Present
- Developed a password manager for securely storing user passwords with **bcrypt**, a password-hashing function
- Implemented login and signup flow with OpenID and OAuth support for Google and Email authentication
- Created accessible, mobile-friendly web user interface
- Built with Python and Flask framework, with a relational database for storing encrypted user passwords

keyphrases.rs | *Rust* — 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
- Designed the library to be flexible, customizable, and scalable, allowing users to adjust the library's parameters and configurations to fit their needs
- Optimized the library's performance and memory usage to ensure efficient processing of large volumes of text data
- Contributed to the open-source community by sharing the library's source code and documentation on GitHub and crates.io

Trends Analysis | *Python, KeyBERT* — Jan. 2022 – Present
- Conducted data analysis on a Discord server with over 1,000 members to identify trends and patterns in user behavior
- 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 API Wrapper | *Python, Requests, Web Scraping* — Dec. 2022 – Jan. 2023
- Developed a Python-based Genius API wrapper to facilitate access to the Genius lyrics database, enabling users to search for and retrieve lyrics and other song-related data
- Published on Python Package Index (PyPI), resulting in over 5,000 downloads and numerous positive reviews and feedback from users
- Utilized Requests HTTP library to communicate with Genius REST API
- Tested and validated accuracy and effectiveness in retrieving relevant and up-to-date song data, including lyrics, album art, artist information, and song metadata
- Implemented the API wrapper to provide a range of functionality, including searching for song lyrics, retrieving song metadata, and accessing song annotations and explanations

TECHNICAL SKILLS

Languages: Rust, Python, Java, C++, JavaScript, HTML, CSS, SQL (Postgres, SQLite)
Tools: Git, Docker, Flask, FastAPI, LaTeX

EXTRACURRICULAR

Association For Computing Machinery (ACM) | *Member, Contributor* — Aug. 2022 – Present
- 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