# Nathan Mendoza

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## Professional Summary

Enthusiastic and results-driven Software Engineering graduate with a specialization in Web API development and SQL databases. Delivered 2 RESTful APIs with 100% code coverage within 3 months, utilizing testing and mocking frameworks. Eager to contribute skills to a dynamic team in a challenging professional environment.

## Key Skills

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|---|---|
| **Programming Languages** | Python, Java, JavaScript, HTML, CSS, TypsScript, Bash, SQL, Rust, Go |
| **Web Services** | RESTful APIs, FastAPI, Flask, Express.js, Websockets, GraphQL, gRPC, Protocol buffers |
| **Data Management** | PostgreSQL, MySQL, SQLite, MongoDB, SQLAlchemy, Sequelize, Mongoose |
| **System Administration** | Linux, Docker, Kubernetes, CI/CD pipelines, Git, Github, Github Actions, Ansible |
| **Quality Assurance** | Unit testing, Mocking, Pytest, Test-driven development, Pytest, Selenium, JUnit |
| **System Security** | JWTs, SSL certificates, Role-based access control |
| **Software Development** | Agile methodologies, Design patterns, Requirements analysis |
| **Web Interfaces** | React, Angular, TailwindCSS, |

## Work Experience

**Jan 2024 – present**    **Data Annotations**, AI Software Engineer

- Utilized cutting-edge generative AI models to create complex software development tasks as training data for future model iterations.
- Compared and contrasted the performance of various generative AI models in terms of correctness, instruction-following, and helpfulness in regards to complicated programming, debugging, testing, and data analysis tasks.
- Enabled generative AI models to recognize prompts with ill-intent and respond with appropriate, non-harmful, and helpful responses.

**Apr 2022 – June 2023**    **Coding Minds**, Instructor

- Led assigned courses, sharing computer science knowledge on algorithms and data structures, and introduced students to new technologies, resulting in increased student engagement.
- Improved student progress by 20% by using communication skills to provide feedback to parents.
- Scaled teaching methodologies to 12 classes, analyzing student progress and behavior to boost class involvement.

- Motivated students to attempt projects that are just beyond what they learn in class by guiding students through planning and assisting with implementation when needed..
- Built trust with students by following youth technology trends and individual passions, presenting complex problems to encourage critical thinking.

June 2022 – Sept 2022  **Box**, Software Engineering Intern

- Implemented a scalable python service to act as an database management agent between a grant control plane and over 800 MySQL databases, improving database security and reliability.
- Created a JSON based role specification format, exposing a strategy for data management personnel to better oversee data access and slashing the number of RBAC policies in use by a factor of 20.
- Documented the new security protocol for adding or modifying data permissions, allowing for nearly 100% automated permission updates once changes are approved.

## Education

Aug 2024 – present  **CSU Fullerton**, Master of Science (M.S.) in Software Engineering
Sept 2019 – June 2023  **UC Irvine**, Bachelor of Science (B.S.) in Software Engineering

- Cumulative GPA: 3.841 out of 4.000
- Dean's List: Made on 10 out of 12 quarters attended

## Projects

July 2024 – present  Fit Check

- A full stack web application that allows users to track the contents of their wardrobe and create outfits based on the clothes they own.
- Utilizes React and TailwindCSS for the front end.
- Employs a RESTful FastAPI edge server to deligate requests to logical microservices via gRPC and protocol buffers.

Mar 2024 – June 2024  Safe Callback

- A python package that offers a decorator based solution to safely call functions that may raise exceptions.
- Utilizes pytest to ensure decorators can be used with various python callables.
- Offers an unopinionated API to specify the behavior of the decorator in error, success, and finally cases, corresponding to the traditional 'try-except-finally' block.

Sept 2023 – Feb 2024  Dotctl

- A rust based CLI utility that helps manage dotfile setups across multiple machines.
- Utilizes a straightforward YAML configuration to define dotfile locations and their corresponding links/copies.
- Offers a simple API to add, remove, and update dotfiles individually or in bulk.
- Provides an atomic setup and teardown process to ensure *all* dotfiles are linked or copied or none are.