Michael Rigali

https://michaelrigali.github.io/portfolio-website

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Education

Oregon State University May 2021 – **Present**
Bachelor of Science in Computer Science *Corvallis, OR*

Experience

Gnarled Helix January 2024 – **Present**
Software Engineer Intern *Boston, MA*
- Contributed to the codebase of a web-based programming-focused educational video game written in TypeScript.
- Built out enemy behavior, animation sequences, UI, and in-game documentation.
- Honed skills in version control systems to manage and collaborate on project codebase.
- Translated complex technical concepts into user-friendly documentation and tutorials, enhancing educational outcomes.
- Worked with React, Redux, RTK, and a wide variety of other NPM packages in a modern Webpack build environment.

Code and Coffee August 2024 – **Present**
Associate Web Developer *Baltimore, MD*
- Developed and maintained responsive web applications for front-end design and user layout optimization.
- Code and Coffee Baltimore events leader, fostering community engagement and technical learning.

Portfolio Projects

VocabExpander | *Python, Flask, REST API, HTTP Protocol* May 2024
- ∗ Software engineering capstone project focusing on preparing students for the reading section of the GRE.
- ∗ Practiced agile methodologies in groups, and honed skills relating to error handling, reliability management, routing..
- ∗ Integrated a microservice architecture to handle vocabulary expansion and quiz generation, with each microservice functioning as a distinct endpoint, optimizing the overall system's scalability and maintainability.
- ∗ Implemented a CI/CD pipeline on Heroku to automate deployment, ensuring seamless integration and delivery of updates, while maintaining high system reliability and minimizing downtime.

Cryptocurrency Trading Bot | *Python, Flask, Visual Studio Code* January 2024
- ∗ Developed and deployed an algorithmic cryptocurrency trading bot using Python, automating trading strategies on Binance and Bitmex exchanges, resulting in improved trading efficiency.
- ∗ Designed and implemented a custom graphical user interface (GUI) with Tkinter, allowing real-time monitoring of market data and seamless interaction with the trading bot.
- ∗ Established direct connections to Binance and Bitmex APIs, utilizing REST and WebSocket protocols to execute trades and retrieve market information without relying on third-party services.

PokeCollect | *Python, Flask, MySQL* September 2023
- ∗ Developed a Pokemon card collection app enabling users to efficiently track and store detailed data.
- ∗ Designed and implemented a relational database schema from an ER diagram, leveraging MySQL to manage and optimize data storage, ensuring efficient retrieval and manipulation of Pokemon card information.
- ∗ Created multiple indices within the relational database, optimizing query performance and ensuring swift access to frequently queried data, enhancing the overall user experience.
- ∗ Formulated complex SQL queries for data manipulation and retrieval, integrating them into a web-based interface using Flask to deliver a seamless and responsive user experience.

Technical Skills

Languages: Python, Java, C, HTML/CSS, JavaScript/TypeScript, SQL
Libraries/Frameworks: Redux, RTK (Redux Toolkit), Bootstrap, Flask, JUnit, Pandas, NumPy, Matplotlib

Relevant Coursework

- Data Structures
- Software Engineering
- Algorithms Analysis
- Databases/Web Dev.
- Artificial Intelligence
- Machine Learning
- Operating Systems
- Computer Architecture

Extracurricular Activities / Awards / Achievements

- OSU Programming Microcredential
- Loyola Army ROTC Class Rank: 1/33, Top Cadet
- Loyola Army ROTC Academic Award
- President's Volunteer Service Award
- OSU Leadership Academy and OSU Hackathon
- UMD Study Abroad (Genova, Italy)
- UMD Competition Boxing Team
- Greyhound Leadership Graduate