

JACKSON NEWMAN

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WORK EXPERIENCE

Majestic Labs AI

Software Engineer

Los Altos, CA

September 2024 -

- Created Flask app to make API endpoints and web page to communicate with AI model via HTTP requests to demonstrate functionality of inferencing.

AMD

Software Engineer Intern, Internal Development Tooling

San Jose, CA

June 2023 - September 2023

- Accelerated Vivado constraint processing by 50% with a new C++ pattern matching function.
- Developed unit tests achieving 100% coverage to ensure performance and accuracy for Wildcard Matching.
- Reduced Vivado memory usage by 2% by refactoring code to utilize Tessil C++ Hash map package.
- Decreased testing time by 80% through automation of memory and encryption performance tests.
- Cut Vivado project update time by 50% by automating encryption key upgrades for custom IP.

Shellie.us

Full Stack Software Engineer Intern, MERN Stack

San Francisco, CA

June 2022 - September 2022

- Created an edit page for online exhibits, allowing 50+ admins to update marketing and authorized users.
- Enhanced user experience, eliminating 100% of 30+ monthly inquiries about exhibit updates.
- Streamlined new exhibit page launches, reducing time by 60% (from 5 days to 2 days).

PROJECTS

Historical Stock Information Visualization Website | *Flask, Javascript, SQLite, Git, CI/CD, GitHub Actions, REST API*

- Developed a custom Trie structure indexing over 6000 stocks by market cap, optimizing search efficiency.
- Automated testing for the Trie structure, achieving 100% coverage of all possible tickers.
- Improved stock information retrieval API time by 90% through optimized workflows.
- Created custom GitHub Actions to automate 100% of the management for 3 unique databases.
- Developed custom caching system, reducing time spent on database updating by up to 60%.

REST API implementation and Database Management | *HTTP, PostgreSQL, Java, Springboot, Swagger, React*

- Developed CRUD operations in a Java backend for PostgreSQL database, deploying 6 key functions.
- Created a comprehensive testing suite to cover 100% of query functionality, including error handling.
- Integrated frontend and backend testing into the CI/CD workflow, ensuring 100% up time in production.

Website for Daily Commute Information | *React, Javascript, CSS, Bootstrap, User Auth, GCP, Firebase, Git*

- Designed and developed a user-friendly commute reminder website, providing 100% current traffic info.
- Configured Firebase for secure user authentication and data storage, optimized for over 1000 users.
- Utilized Google Cloud Functions for server-less computing, sending emails with optimal routes daily.

EDUCATION

University of California, Santa Barbara

Bachelor of Science in Computer Engineering

Santa Barbara, CA

September 2020 - June 2024

3.7 GPA, Dean's Honors, Relevant Coursework:

Data Structures, Algorithms, Operating Systems, Machine Learning, AI, Embedded Systems, Web Development

TECHNICAL SKILLS

Programming Languages: C/C++, Java, Python, PostgreSQL, SQL, SQLite, JavaScript, HTML, CSS, JSON, YAML

Frameworks: React, Node.js, Flask, Bootstrap, Material-UI, Storybook, Spring Boot

Developer Tools: Git, Docker, Jira, Google Cloud Platform, Azure, AWS, GitHub, Confluence, Perforce, NPM, Firebase, GitHub Actions, MongoDB, Jenkins, Kubernetes

Libraries: pandas, NumPy, TensorFlow, PyTorch, Keras, Seaborn, matplotlib

- Demonstrated adeptness in Linux development at AMD through bash scripting and utilization of development tools, showcasing a strong grasp of environments and workflows.
- Experience in Agile/SCRUM development with Kanban, stand-ups, and Retrospectives.
- Skilled in refactoring legacy codebases to enhance efficiency and optimize performance.
- Experience automating and scripting testing and workflows using CI/CD tools.