Ethan Clawsie

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Education

Santa Clara University
Third-year B.S. in Computer Science

Skills

Programming Languages: JavaScript, C++, Python
Web & Frameworks: Flask, Chrome Extension Manifest V3
Databases: MySQL, Firebase, PostgreSQL
Cloud & DevOps: AWS EC2, AWS Lambda, DigitalOcean, Linux, Git
Compiler Technology: LLVM MLIR

Experience

Stealth Startup | MLIR Compiler Intern   Campbell, CA | June 2024 – September 2024
- Led development efforts to extend the TPP-MLIR project by creating custom passes supporting a Tensor Operator Set Architecture (TOSA) based dialect for a next-generation GPU architecture.
- Developed and implemented a comprehensive pipeline to bridge my work with other team components, enabling execution on custom architecture through the Renode simulator.
- Successfully integrated cross-team software components while porting the project to the internal build system, adhering to industry best practices.
- Collaborated effectively in a fast-paced startup environment, participating in hands-on weekly meetings and meeting project deadlines.

Freelance | Pipeline Infrastructure Engineer   Santa Clara, CA | January 2024 – June 2024
- Collaborated with local business partners to strategize and develop a comprehensive financial analytics platform featuring a custom-tailored web interface built with HTML/CSS and a Python backend hosted on AWS.
- Designed and implemented a fully automated website with secure Firebase authentication and IP logging for enhanced security.
- Engineered an efficient data pipeline utilizing AWS Lambda to bridge server-side operations with the frontend, leveraging EC2 instances to automate daily financial data collection.
- The platform enabled investors to track algorithm performance metrics in real-time, leading to more informed investment decisions and improved portfolio performance.

FUTO | Web Development Intern   Austin, TX | May 2022 – August 2022
- Developed and published a Chrome extension for YouTube, enhancing information transparency and user experience.
- Built the frontend using JavaScript, HTML, and CSS, and implemented a robust backend with Go and SQLite to handle user data processing and storage.

Projects

Carbon | Flutter (Dart), Supabase, INRIX API, Google Maps API
- Developed an eco-friendly social app using Flutter and Supabase that received an honorable mention out of 300 competitors at INRIX Hackathon 2023.
- Led database architecture and built the data pipeline between frontend and backend.

DermAI | Python, Flask, TensorFlow, JavaScript, HTML, CSS, Google Maps API
- Created an ML-powered dermatology diagnostic tool using TensorFlow and Flask for Hack for Humanity Hackathon 2023.
- Responsible for dataset curation, model training, and Flask backend development.
- Web platform allows image uploads, displays prediction confidence levels, and suggests similar conditions via fallback.

Learn CLI | Go
- Developed a command-line learning tool in Go inspired by Quizlet's premium learn feature.
- Learn implements an interactive system that tracks incorrect answers and repeats them until mastered, providing immediate feedback with a persistent configuration to save user preferences and last-used files.

Pystocks | Python, Matplotlib, Yahoo Finance API
- Built a Python-based portfolio management tool using Yahoo Finance data with features such as price history, portfolio valuation, and portfolio comparison.

YouRater | JavaScript, Go, SQLite
- Wrote a Chrome extension in JavaScript, HTML, and CSS with a Go and SQLite backend that adds a five-star rating system to YouTube videos, showing average ratings and total rating counts.