Moussa Haidous

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Mountain View, CA

EXPERIENCE

Software Engineer   July. '22 – Present

Matroid – Product – Palo Alto, CA

- Developed a declarative granular **attribute-based access control / authorization system** to meet enterprise customer demands.
- Built an application-level deployment-agnostic **task scheduler** with an easy-to-use interface to power recurring tasks e.g. daily database cleanups (**5% monthly cost reduction)**, data ingestion, etc..
- Engineered an environment-agnostic **data migration service** to facilitate release, increase feature velocity, and consolidate initial db seed data formats.. Supports change logs & rollbacks.
- Reworked our Docker images to utilize **multi-stage builds** which resulted in **5+ gbs of image size reduction** & improved image build speeds w/ smarter caching.
- Developed a **GitHub Actions artifacts viewer** with support for many developer-focused features including log viewing w/ timestamp based scroll-locking, selenium recording playback, etc..
- Improved our JS test running performance for both development & CI environments by **~2.5mins** by using modern rust-based compilers.
- Migrated codebase off of a 5+ year old deprecated NodeJS CMS ridden with **50+ critical security vulns**, utilizing AST transformations.
- Restructured our JS monorepo to make use of **yarn workspaces** to enforce application-level boundaries & contracts, debloat & manage external dependencies, & increase the ease of use of internal libs.
- Introduced an **application-wide structured logger** with support for different formats & transports e.g. JSON to loki, plaintext w/ ANSI color codes for the console, etc..
- Built a **real-time collaboration environment** into our annotation tooling using **WebSockets** which directly increased annotator velocity.
- Worked with 3rd-party penetration testers to triage & respond to several testing rounds.

Part-time Software Engineer   Jun. '21 – May '22

Murex – Build Systems – Beirut, Lebanon

- Built internal **Java gRPC microservices** to **aggregate data** on **production build processes**.
- Designed & enforced **quality gates** on build processes such as **build time** & **output size**.
- Engineered an **API Gateway** using **Java Spring** to translate **RESTful** requests into **gRPC** calls.
- Developed a custom **Java Nexus Repository Manager 3** recipe to enable **build caching** & **decrease development time**.
- Optimized the **speed performance** of a critical **Python** internal tool by **15x**.
- Built **Jenkins pipelines** to accelerate development and deployment of the tool.
- Developed a **Flask web server** wrapper around the tool to allow integration by other tooling.
- Designed & deployed an **Angular dashboard** to display **aggregate data & indicators** generated by the tool.
- Managed the **incremental deployment** of the new tool version across the production codebase.

FEATURED PROJECTS

Traefiker | GitHub

A docker container management platform that enables deploying containers behind a reverse proxy with a click of a button.

Fine | Live Demo - GitHub

A Keras-like deep learning library that provides an artificial neural network Python interface built from scratch.
Built purely using Python and NumPy.

EDUCATION

Lebanese American University | Bachelor of Science in **Computer Science**   May '22

- Cum. GPA: 3.98/4.0

SKILLS

Golang, JS/TS, Python, Java, NodeJS, Spring, Flask, MongoDB, PostgreSQL, React, NextJS, Jenkins, GitHub Actions, Docker, Kubernetes