**Moussa Haidous**

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Mountain View, CA

**EXPERIENCE**

**Software Engineer** July. ‘22 – Present

Matroid – Product – Palo Alto, CA

* + Developed adeclarative 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](https://github.com/haidousm/fine)

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

**Fine** |[Live Demo](https://moussahaidous.com/fine) - [GitHub](https://github.com/haidousm/fine)

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