

# Moussa Haidous

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Mountain View, CA

## EXPERIENCE

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### Software Engineer

July. '22 – Present

Matroid – Product – Palo Alto, CA

- Led a **multi-month migration** off of KeystoneV4, a deprecated NodeJS CMS ridden with **50+ critical security vulnerabilities**. We were able to upgrade all of our other dependencies e.g. Mongo. Additionally, we were able to get more clients on board that were initially unimpressed with our large number of security vulnerabilities.
- Led a multi-month migration from a **Create React App (CRA) React application to Next.JS**. We were able to improve load times, make great use of server-side rendering (SSR), and improve developer experience.
- Designed & deployed a **MongoDB cleanup service** with support for **custom cleanup policies**. We were able to decrease the amount of data stored in our cloud deployment by **100+GBs** and decreased our monthly **AWS S3 costs by 5%**.
- Spearheaded the incremental development of **declarative granular attribute access control (ABAC) system** that worked hand-in-hand with our previous imperative permission control system to directly deliver on our growing enterprise requirements from our customers. This project was initially built as a part of our **quarterly hackathons and was awarded 1<sup>st</sup> place**.
- Was the **Directly Responsible Individual (DRI)** of a **multiple object tracking (MOT) feature** where I coordinated efforts between our deep learning, infrastructure, and product team, in addition to developing a custom video player w/ filtering options and in-browser exporting by utilizing **FFmpeg in WASM**.
- Integrated a **MongoDB prometheus exporter & created Grafana charts** to better monitor Mongo, in addition to alerts, after a CPU spike brought down our cloud deployment.
- Built & integrated a **real-time collaboration environment** into our annotation tooling using **WebSockets** to improve the user experience of our annotation studio, in addition to making it apparent which annotator was working on what data.
- Created **idempotent APIs** that bulk-create configured resources in our product which decreased the amount of time required to get a customer setup in our on-prem offerings.
- Developed a **flow-based interface for the product** that permits the creation of custom workflows that hook into our different features allowing further customizability and freedom without infringing on our low-code/no-code promise which allowed our Sales team to build client-specific demos without the need of the deep learning team. This project was built as a part of our **quarterly hackathons and was awarded 1<sup>st</sup> place**.

### Part-time Software Engineer

Sept. '21 – May '22

Murex – Build Systems – Beirut, Lebanon

- Built & deployed 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**.

### Software Engineering Intern

Jun. '21 – Aug. '21

Murex – Build Systems – Beirut, Lebanon

- Optimized the **speed performance** of a frequently used **Python** internal tool by **15x**.
- Built **Jenkins pipelines** to accelerate development and deployment of the tool.
- Developed a **Flask RESTful service** that provides an API for the tool which facilitates its usage by Murex engineers.
- Designed & deployed an **Angular dashboard** to display **aggregate data & indicators** generated by the tool.
- Implemented **additional features** for the tool that **improve the quality of life** of development teams across Murex.
- Managed the **incremental deployment** of the new tool version across the Murex production codebase.

## EDUCATION

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Lebanese American University | Bachelor of Science in **Computer Science**

May '22

- Cum. GPA: 3.98/4.0

## SKILLS

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- Languages:  
Python, TypeScript, C, Java, Rust, SQL
- Technologies:  
NodeJS, Spring Boot, Flask, MongoDB, PostgreSQL, React, Angular, Jenkins, Docker, Git