elyesmahjoubi@hotmail.com
+34 665 934 348

Elyes Mahjoubi

https://github.com/EM51641
Swiss Citizen

EDUCATION

HEC Lausanne — Lausanne, Switzerland
M.Sc. in Quantitative Finance, GPA: 4.95/6.0 — 2019 – 2021

- **Coursework**: Econometrics; Mathematics; Programming (Python, C++); Statistics
- **Master Thesis**: Rough Volatility Modeling in option pricing validated with a grade of 6.0/6.0

HEC Lausanne — Lausanne, Switzerland
B.Sc. in Economics, GPA: 4.7/6.0 — 2016 – 2019

- **Coursework**: Econometrics; Mathematics; Programming (Matlab); Statistics

WORK EXPERIENCE

Gartner — Barcelona, Spain
Software Engineer — January 2024 –

- Developed a high-performance API serving over 100 million users annually, powering platforms like Capterra, Software Advice, Upcity, GetApp, and their international counterparts.
- Enhanced repository API flexibility and maintainability by implementing the Query Specification pattern.
- Expanded GraphQL schema with new types and resolvers, enabling critical functionalities such as segment-based review displays (by category, industry, etc.).
- Led the development of an experimental complexity calculator for GraphQL schema testing, proactively identifying potential query failures and communicating changes to stakeholders before production issues.
- Architected versatile data models for efficient storage across RDBMS (Oracle, PostgreSQL), Elasticsearch, and in-memory storage.
- Optimized deployments on AWS EKS clusters using Kubernetes, leveraging Helm for package management and CSI driver for storage provisioning.
- Streamlined data ingestion processes with robust Kafka consumers using Confluent and Avro for schema serialization/deserialization.
- Implemented several github actions caching mechanisms, achieving a 25% reduction in deployment time.

Amazon — Iasi, Romania
Software Developer — May 2022 – October 2023

- Developed a high-performance ECS REST API (Flask) integrated with a Bootstrap 5 GUI to automate ticket-raising rules based on OLAP Redshift Database attributes (e.g., seller and brand IDs). This automation reduced staff requirements by 26%, generating over $1M in monthly savings.
- Architected a REST API and PySimpleGUI interface to streamline invoice filling for sellers, eliminating manual form entry. Leveraged PostgreSQL (v14), NestJS, TypeORM and AWS Lambda for robust back-end functionality, enabling temporary state commits to a local database and efficient form submission to the Amazon vendor microservice. This system saved $500K/month through headcount optimizations.

PERSONAL PROJECTS

- **LiveDisplaced**: This project runs on Flask, SQLAlchemy, and PostgreSQL, allowing us to visualize the influx of refugees, asylum seekers, and people of concern globally to raise public awareness. It is hosted on an AWS VPC https://www.livedisplaced.com

LANGUAGES

Native: French, Arabic
Full proficiency: English (IELTS C1)
Partial proficiency: Spanish (B1)

SKILLS

Languages: Python, Typescript, Javascript, Elixir, Java
Technologies: Terraform, Git, RDBS, NoSQL, AWS, Apache Kafka, Docker, Kubernetes, Gitlab CI, Github action, Datadog, Opentelemetry