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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 –*

- Enhanced the repository API by applying the Query Specification pattern, resulting in improved query flexibility and maintainability.
- Expanded the GraphQL schema by incorporating new types and resolvers to support additional critical functionalities, such as displaying reviews by segment (category, industry, etc.).
- Designed new data models to store data from various sources, including EAVs, traditional RDBMS tables, and persistent in-memory storage. Monitored latency using Datadog to optimize query performance.
- Managed deployments on EKS clusters with Kubernetes, utilizing Helm for package management and the CSI driver for storage provisioning.
- Oversaw data ingestion processes and the creation/update of Kafka consumers using Confluent, leveraging Avro for schema serialization and deserialization.
- Contributed to the development of a new API now utilized by over 100 million users globally every year, powering the backend for Capterra, Software Advice, Upcity and GetApp.

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

- Built and maintained a REST API in Python (Flask) that extracts data from the OLAP Redshift Database, containing key attributes, such as the seller IDs, Brand IDs, etc., to a back-end with a GUI interface designed with Bootstrap 5. Based on these attributes, the client (The associates) could add sets of rules to automatically raise a ticket when a rule is broken for a specific set of attributes, which can then be corrected as soon as possible. This project has an official headcount saving of 2, sparing the company more than 1M $ a month.
- Implemented and maintained a REST API allowing to fill invoices to sellers instead of manually filling forms directly. Because this matter is sensitive, the associates responsible can commit every state temporarily into a local database and send the form to the Amazon vendor micro-service via a PySimpleGUI interface. The back-end consisted of a PostgreSQL engine (v14), NestJS as the API framework and TypeORM. The project helped the company save 500K $ given headcount savings calculations.

Personal Projects

- **LiveDisplaced Backend API**: 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. https://github.com/EM51641/livedisplaced

Languages

Native: French, Arabic

Full proficiency: English (IELTS C1)

Skills

Languages: Python, Typescript, Javascript, Elixir, Java

Technologies: Git, RDBS, NoSQL, AWS, Kafka, Docker, Kubernetes, Github action, Datadog