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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 –
  ○ Developed a high-performance API supporting over 100 million users annually across platforms including Capterra, Software Advice, Upcity, and GetApp, implementing the Query Specification pattern to enhance repository flexibility and maintainability while expanding GraphQL schema with new types/resolvers for critical functionalities like segment-based review displays (by category, industry, ...). Designed versatile data models enabling efficient storage across RDBMS (Oracle, PostgreSQL), Elasticsearch, and in-memory systems to optimize performance and scalability
  ○ Streamlined data ingestion processes by implementing Kafka consumers that read from multiple Confluent topics, utilizing Avro for schema-based deserialization.
  ○ Optimized application deployments on AWS EKS clusters using Kubernetes, Helm, and CSI drivers, while using GitHub Actions caching strategies to automate and accelerate CI/CD workflows-achieving a 25% reduction in deployment time.
  ○ Spearheaded development of a global query complexity framework with customizable rulesets, enabling back-end teams to safely test algorithm changes in a pre-rollout validation environment and preventing client-side breaks through proactive failure simulation while accelerating iteration cycles by more than 100% on assessment improvements, as the complexity algorithm was only reviewed a few times a year in the past.

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 yearly 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/year through headcount optimizations.

PERSONAL PROJECTS

- **LiveDisplaced**: Developed a data visualization platform using Quart (an asynchronous Flask framework) and SQLAlchemy ORM, integrated with multiple AWS services to track and display the global influx of refugees, asylum seekers, and people of concern. The project aims to raise public awareness by providing up-to-date accessible information through the website https://www.livedisplaced.com

LANGUAGES

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

SKILLS

Languages: Python, Elixir, Typescript, Javascript, Java
Technologies: Terraform, Git, Postgres, Mysql, Elasticsearch, AWS(ECS, EKS, Lambda, ECR, IAM, Route 53, ACM, Batch, Cloudfront, Cloudwatch, Aurora, RDS, Secret Manager, ALB, SSM, S3, Fargate), Apache Kafka, Docker, Kubernetes, Gitlab CI, GitHub action, Datadog, Opentelemetry, Confluent