

# Elyes Mahjoubi



Swiss and Tunisian





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### About me ———

I am a hardworking and ambitious individual passionate about applied mathematics and programming. I work at Amazon.com as a software developer in the Retail Business Seller department. I actively develop internal Python and Javascript APIs for the business intelligence department by removing recurrent tasks and easing the work of associates and business analysts. My opensource projects are available at the above link.

## Skills —

Clean Coding Principles

Dependency Injection(DI)

Containerized development(Docker)

Test-driven development(TDD)

Domain-driven development(DDD)

Python

Typescript

SQL(PostgreSQL, MySQL)

HTML

CSS

#### [Interests]

OO Programming; Open Source Development; APIs; DevOps Pipelines; SOLID principles; Code Reviews; Learning new Tech stacks; Statistics; Mathematics; Books; Cinema.

#### Education

2019-2021, M.Sc. in Quantitative Finance at HEC Lausanne Lausanne, Switzerland

- Econometrics; Mathematics; Programming(Python, C++); Statistics. GPA: 4.95/6.0. Master Thesis on the topic of "Rough Volatility Modeling" in option pricing validated with a grade of 6.0/6.0.

2016-2019, B.Sc. in Economics at HEC Lausanne

Lausanne, Switzerland

- Econometrics; Mathematics; Programming(Matlab); Statistics. GPA: 4.7/6.0

#### Employment History

From May 2022, Software Developer, Amazon

Iasi, Romania

- Built and maintained a REST API in Python(Flask), extracting data from the OLAP Redshift Database and returning a report laying key attributes, such as the seller IDs, Brand IDs, etc., from a web page using Bootstrap 5. These generated daily reports allow the Catalog specialists to spot broken rules and rectify them as soon as possible by sending them an email, raising a ticket and storing it in a Database so It can be closed as soon as the work is done. This project has an official headcount saving of 2, sparing the company more than 1M\$ a month.
- Implemented and maintained, in TypeScript, a REST API(Nestjs) 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 the DB, access them via an executable file (built with PySimpleGUI) and finally send the form to the Amazon vendor micro-service. The backend consisted of a PostgreSQL engine(v14), Nestjs as the API framework and TypeORM. The project helped the company save 500K \$ given the company's calculation.

Aug-Sep 2019, Quantitative Analyst Intern, Biat Asset Management

Tunis Tunis

- Proposed a more realistic metric to analyze the Conditional Value at Risk and deliver some well-known financial metrics using a famous research paper (McNeil and Frey, 2000). The projects are available at [https://github.com/EM51641/VaRpy, ttps://github.com/EM51641/pyinsurance-]

### Languages

French, Arabic Native

English Full proficiency (IELTS C1)

#### [Extra-curricular activities]

2018-2019, Debate Manager at Association Mosaique

Lausanne, Switzerland

- Represented Luxembourg at the NATO committee in a crisis session between Sweden and Russia at the Prague MUN 2019.
- Represented Colombia at the World Health Organization committee at the Harvard World MUN 2018 in Panama city, where my goal was to convince as many as possible delegations to build a cooperation campaign among the committee members for the typical treatment of mental illnesses.

### Personal Projects

Retail Stock Management API, https://github.com/EM51641/RetailStockManagement

- The RSM API micro-service allows sellers to transfer and manage inventory data. It streamlines the process of managing stocks by linking every stock transaction to it (Billing, Buying from merchants, etc.). It is possible to connect employees with different layers of permissions (Counting, Adding Products, Adding Subitems, etc.). The project runs on Typescript and uses NestJS, TypeORM and PostgreSQL.

LiveDisplaced Backend API, https://github.com/EM51641/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.