

Amine LAHOUANI

Senior Data Scientist

Lahouani Amine

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Portfolio : <https://personal-portfolio-website-lac.vercel.app/>

Tech Stack

- Python / R / SQL
- TensorFlow / Pytorch
- BigQuery
- Looker ML
- Git / Github
- KubeFlow
- Apache Hive / Spark
- Docker / K8s

Experienced Machine Learning Engineer with a strong background in Large Language Models foundation Models tuning and Multi-Agent Systems. As Google Cloud Platform (GCP) Machine Learning Engineer, I specialize in leveraging cloud technologies to optimize AI solutions. My expertise extends to the financial sector, where I have applied advanced data analysis and machine learning skills within investment banks to enhance decision-making and operational efficiency

Experience

Tax Department , Fraud Detection Bureau / Lead Data Scientist , Consultant , Freelance

Mar 2024 - PRESENT, Rabat , Morocco

Projet : Confidential

Tech Stack: HDFS / SPARK , Python , GCP , KubeFlow , AirFlow

Infomineo / Senior Data Scientist , Ful-time

Jan 2023 - Feb 2024 , Casablanca , Morocco

- Lead the design and implementation of data pipelines for various financial sector clients, focusing on scalability and robust data management.
- Deployed and maintain ML solutions locally and with GCP
- Packaged and served ML models on the Google Cloud Platform (GCP), ensuring efficient model deployment and accessibility.
- Implemented Continuous Integration/Continuous Deployment (CI/CD) to streamline development and deployment processes
- Spearheaded initiatives to stay at the forefront of technology by adopting the latest innovations in data-driven methods and machine learning, customizing solutions to meet complex client needs.
- Collaborated with cross-functional teams to integrate data-driven and ML technologies into client systems, ensuring seamless technology enhancements.

Société Générale - Africa Technologies & Services / Data Scientist

Global Credit Strategy Team , Full-Time

Sept 2022 - Jan 2023 , Casablanca , Morocco

- Leveraged ML to innovate credit modeling and strategy, significantly improving predictive accuracy under senior strategist mentorship.
- Utilized econometric and time series analysis to drive strategic recommendations, optimizing client outcomes in the credit sector.
- Implemented CI/CD practices to ensure continuous improvement and efficient deployment of ETL workflows.
- Specialized in Financial time series modeling , utilizing advanced Python libraries (Pandas, Numpy, Scipy) to extract actionable insights from complex datasets.
- Developed interactive data visualizations and GUIs with Tableau, Matplotlib, Seaborn, and Python Tkinter to enhance data interpretability and user experience

DIVIC .Corp / Ruby Developer , Full-time , Apprenticeship

Juillet 2020 - Janvier 2021 , Tokyo , Japan

- Back-End: RoR
- Front-End: Vue.js, TypeScript, jQuery, Bootstrap4
- Base de données: PostgreSQL, SQLite3 (MangoDB pour NoSQL)
- Middleware: Kafka, AWS Glue
- Stack : Rails Framework, Linux, Git bash

International University of Japan - Research Center / Research Assistant

Part-Time

Septembre 2019 - Juin 2020 , Niigata , Japan

- Portfolio Optimization: Optimized portfolios using factor-integration, including momentum, value, size, profitability, investment, and their integration.
- Developed a new approach for optimizing the Information Ratio (IR) through a multi- stage optimization algorithm using Principal Components Analysis and Clustering.
- **Project Keywords:** Quantitative Finance / Market Pricing and Hedging / Interest Rate Derivatives / FX and Credit / CVA / Monte Carlo Simulation / Rate Exotic Derivatives / Interest Rate Hedging /Machine Learning and Regression Models / Contract Pricing / CDS, CDO, CVA

Japan Securities Finance , Corp / Data Scientist Intern , Global Credit Strategy Team , Permanent

Juin 2019 - Décembre 2019 , Tokyo , Japan

- Automated and Stream-lined the repo transactions' process using VBA Excel to create a user-friendly interface, able to calculate key indicators, aggregate fee by client and/or transaction and automatically generate comprehensive tables, graphs and reports
- Conducted Market research on the Securities Lending Business in MENA Markets and delivered a detailed report of thereof

- Engaged in Fixed Income, Japanese Common Equity and Preferred Stocks related transactions
- Participated (alongside with Traders) in Short selling, CDS and Securities borrowing and Lending operations

Ministry of Economy and Finance , Budget Department / Lead Statistician
Permanent

Avril 2015 - Juillet 2018 , Rabat , Maroc

- **Macroeconomic Policy Analysis:** Conducted general macroeconomic statistical analysis using Eviews, STATA, and R with various models such as VAR, SVAR, ARIMA, SARIMA, and ARDL.
- Studied the impact of public policies using static and dynamic general equilibrium models.
- **ODA Projects Monitoring (Project Coordinator):** Monitored feasibility studies, negotiations, execution, coordination, and disbursement of ODA projects. Coordinated collective actions with foreign donors, primarily JICA, USAID, IFAD, the ADB Bank, and the World Bank.

Education

International University of Japan / Master of Business Administration

2018 - 2020 , Niigata , Japan

- Quant.Finance and Financial Modeling Specialization .

National Institute of Statistics and Applied Economics /Engineer's Degree

2011 - 2014 , Rabat

Certifications

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- IBM Certified Associate - SPSS Modeler Data Mining v2 – IBM
 - Deep Learning Specialization - DeepLearning.AI
 - DeepLearning.AI TensorFlow Developer - DeepLearning.AI
 - AWS Cloud Technical Essentials - Amazon Web Services (AWS)
 - Modern Big Data Analysis with SQL Specialization – Cloudera
 - State Estimation and Localization for Self-Driving Cars - University of Toronto
 - Visual Perception for Self-Driving Cars - University of Toronto