Amine Lahouani

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Senior Data Scientist

SUMMARY

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.

EDUCATION

International University of Japan   **2018 – 2020**
Master of Business Administration - MBA, Accounting and Finance
Honors & Awards
Beta Gamma Sigma Academic Excellency Award - Beta Gamma Sigma Organization
Institut National de Statistique et d'Economie Appliquée (INSEA)   **2011 – 2014**
Engineer's degree, Statistics

EXPERIENCE

Infomineo   **Jan 2023 – Present**
Senior Data Scientist

- Lead the design and implementation of data pipelines for various financial sector clients, focusing on scalability and robust data management.
- Deploy and maintain ML solutions locally and with GCP
- Packaging and serving of ML models on the Google Cloud Platform (GCP), ensuring efficient model deployment and accessibility.
- Implement Continuous Integration/Continuous Deployment (CI/CD) to streamline development and deployment processes, reducing time-to-market for client solutions.
- Spearhead 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.
- Collaborate with cross-functional teams to integrate data-driven and ML technologies into client systems, ensuring seamless technology enhancements.

Société Générale - Africa Technologies & Services   **Sep 2021 – Jan 2023**
Data Scientist - Credit Strategist. Quant

- 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.   **Nov 2020 – Apr 2021**
Ruby on Rails Developer - Apprenticeship
Server-Side: RoR
Front-End: Vue.js, TypeScript , jQuery, Bootstrap4
DB: PostgreSQL , SQLite3. (MangoDB for NoSQL)
Middleware: Kafka, AWS Glue
 Cloud: AWS, GCP, Heroku.
VCS: Github
Core Skills: Rails Framework ,Linux Command line , Git bash , Cloud Native Solutions

International University of Japan   **Aug 2019 – Jul 2020**
Research Assistant, Multi-Factor Models and Index Structuring (Quant. Finance)
-        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 Co., Ltd   **Jul 2019 – Dec 2019**
Japan Securities Finance provides a wide range of capital market products and services to corporate, government and institutional clients.
Quant. Data Wrangle
● 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

Tax Department, Ministry of Economy and Finance   **Apr 2015 – Aug 2018**
Data Analyst
● 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.

Banque Chaabi du Maroc (Chaabi Bank)   **Feb 2014 – Jul 2014**
Credit Risk Analyst
● Credit Risk Factors Selection and integration using PCA and PECM Methods
● Bias Correction with Propensity Scores
● Used Logit Model to elaborate a Scoring Function
● Generated and Streamlined a Scorecard with VBA Excel

CERTIFICATIONS

● IBM Certified Associate - SPSS Modeler Data Mining v2 – IBM
● PMP® Certification Training Course - International University of Japan
● End-to-End Machine Learning with TensorFlow on GCP – Google
● Structuring Machine Learning Projects - DeepLearning.AI
● Deep Learning Specialization - DeepLearning.AI
● Natural Language Processing in TensorFlow - DeepLearning.AI
● DeepLearning.AI TensorFlow Developer - DeepLearning.AI
● SQL for Data science – Coursera
● 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
● Advanced Computer Vision with TensorFlow - DeepLearning.AI
● Visual Perception for Self-Driving Cars - University of Toronto