Mohamed Amine Ezzaouia

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Education

Software Engineer – ESPRIT — **2020 – 2025**
Specialization: Financial Computer Engineering
Awards: Best Project Prize Winner at ESPRIT, 3 years — **2020 – 2022 – 2023**

Experience

Quantitative AI Engineer – Options Pricing Platform — **Dec 2024 – Aug 2025**
Vermeg for Banking and Insurance Software

– Built an end-to-end options pricing system using deep learning, hybrid AI models, and real-time financial data.
– Designed and tuned advanced neural network architectures to accurately price both standard and complex derivatives.
– Combined AI models with quantitative methods to handle challenging cases such as Bermudan and barrier options.
– Created a high-speed infrastructure enabling real-time pricing, model execution, and market data integration.
– Developed interactive dashboards to visualize volatility surfaces, Greeks, and live option chains.
– Implemented resilient, always-on data pipelines to support continuous market data streaming and analytics.

AI and Software Engineer — **July 2023 – August 2024**
Vermeg for Banking and Insurance Software

– Built an AI system to compare SWIFT files using NLP and document parsing for regulatory reporting.
– Developed a Python-Flask backend integrated with Spring Boot and Angular frontend for smooth UX.
– Created a UI for uploading, analyzing, and displaying results of SWIFT files across formats.
– Led "Mega Go Live" to improve EAR file comparison and automate SQL script transformations at scale.
– Coordinated team workflows and improved scalability through backend automation and testing.

Software Development Engineer – HR Management Systems — **July 2021 – August 2021**
BIAT (Banque Internationale Arabe de Tunisie)

– Developed a web app to automate leave and attendance tracking, improving HR efficiency and reporting.
– Worked with the HR team to gather needs and align technical solutions with business goals and timelines.

Projects

CI/CD DevOps Pipeline Project
Nov 2024 – Jan 2025

– Built a CI/CD pipeline for a Spring Boot app using Jenkins, Maven, SonarQube, Nexus, and Docker.
– Automated testing with JUnit, Mockito, and Jacoco for coverage tracking.
– Integrated Docker Compose for local deployment and Kubernetes for cloud-native deployment.
– Added email notifications for build status (success/failure) using Jenkins mail plugin.
– Enabled monitoring with Prometheus and Grafana; visualized metrics in real time.

Market Trading Simulator Development
Sep 2024 – Feb 2025

– Created an interactive trading simulation platform with real-time data and custom dashboards.
– Implemented AI-based market predictions, portfolio optimization, and sentiment analysis.
– Integrated actuarial models to simulate insurance products and manage risks.

Nanocash – Microfinance and Microinsurance Platform
Jan 2024 – May 2024

– Built a FinTech platform offering microfinance and microinsurance solutions to support financial inclusion.
– Developed Power BI dashboards for stock value visualization and prediction.

Skills

Languages: JAVA, Python, JavaScript, HTML, CSS, SQL
Frameworks: Node.js, Spring Boot, Angular, Flask
Data & ML: Pandas, NumPy, Matplotlib, Power BI
Other Tools: Postman, Power BI, MySQL, GitHub, Canva
Project Management: Agile, Scrum
DevOps Tools: Docker Compose, Kubernetes CLI

Associative Experience

IEEE ESPRIT Student Branch — **2020 – 2023**
– Media lead, then Vice President of the Robotics and Automation Society (RAS).

Rotaract Clubs — **2020 – 2023**
– Media lead in Cosmopolitan, Notre Dame Connect, and Carnoy clubs.

Certificates

Containerization and Virtualization with Docker and Kubernetes – **DataCamp** — **Nov 2024**

Honoris Sustainability, Work Ethics and Gender Equity Certificate – **Honoris United Universities** — **Oct 2024**

Generative AI with Diffusion Models – **NVIDIA** — **June 2024**

Building Natural Language Processing Applications with Transformers – **NVIDIA** — **June 2024**

Developing Edge AI Video Applications on Jetson Nano – **NVIDIA** — **June 2024**

Languages

Arabic: Native **English**: Advanced
French: Advanced **Japanese**: Intermediate