ALAAEDDINE HAMMOUDI, Ph.D.

Data & AI Specialist · Sovereign-Scale AI Factory Architecture

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PROFILE

Trilingual (Arabic/French/English) AI leader with 10+ years designing and building enterprise-scale data products & AI factories from the ground up. Combines hands-on architecture with team leadership and executive stakeholder engagement to deliver governed GenAI/LLM platforms at scale. Open to relocating across the GCC.

CORE COMPETENCIES

AI Leadership & Strategy

- AI/GenAI Roadmap & Vision
- Enterprise AI Factory Design
- Framework, Budget & ROI Alignment
- Knowledge Architecture

Architecture

- AI/GenAI (RAG, Fine-Tuning)
- Distributed Data Platform
- Data Warehouse & Analytics

Governance & Sovereignty

- AI Governance & Data Protection
- Anti-Money Laundering (AML) Framework
- Explainability & Auditability

Team & Delivery

- Team Building
- Agile / SAFe at Scale
- Executive Stakeholder Reporting
- IT Vendor & Service Provider Management

TECHNICAL SKILLS

AI / ML

Python · Java · Scikit-learn · PyTorch · DSPy · HF · FastAPI

Orchestration & Agents

LangChain · LangGraph · RAG Pipelines · Context/Prompt Engineering

Observability & Orchestration

LiteLLM · Langfuse · MLflow · Azure AI Foundry

Data Engineering

SQL · Apache Spark · Airflow · PostgreSQL / Netezza · PGVector

Sovereign Infrastructure & Cloud

Microsoft Azure · Kubernetes · Docker · GitLab CI/CD

PROFESSIONAL EXPERIENCE

Team Lead & Architect — AI Factory

Nice, France | Nov. 2024 – Present

- **Executive Alignment:** Partnered with C-suite and Board members to align technical AI roadmaps with business ROI, funding priorities, and governance frameworks.
- **AI Strategy & Enterprise Architecture:** Spearheaded the architecture and deployment of the hybrid AI Factory, establishing an end-to-end framework spanning data ingestion, model lifecycle management, and observability. Architected the ecosystem to meet rigorous financial-sector compliance requirements, adhering to DORA frameworks and ISO security standards. Deployed 10+ GenAI assistants into production across 4 business units — actuarial, marketing, IT, and sales.
- **Team Leadership:** Built and scaled a multidisciplinary team of 9+ international talents, including AI engineers, data engineers, and architects, establishing a culture of engineering excellence.
- **Internal Solution Selling:** Operated a demo-to-budget model with business divisions — scoping needs, building POCs, and presenting outcomes — where funding followed only after demonstrated value, mirroring a vendor sales cycle.

Project Manager · Tech Lead — Analytics & AI

Nice, France | Jan. 2020 – Oct. 2024

- **Digital Transformation & Data Platform:** Led a multi-year enterprise digital transformation of the data & analytics platform, homogenizing the technical stack and shortening data-ingestion pipeline development time, while significantly improving data reliability, observability, and lineage tracking.
- **AI Innovation Pipeline:** Mobilized and led execution teams to evaluate 15+ use cases, deploying 5 to production, including fraud detection and document classification.
- **Agile Delivery:** Managed a cross-functional team of 11+ data engineers, data scientists, and architects, consistently delivering on time under the SAFe framework across concurrent data and AI workstreams.

Senior Data Scientist

Nice, France | Nov. 2017 – Dec. 2019

- **Customer Insights & Quality Assurance:** Engineered an NLP pipeline to analyze customer verbatims, automatically detecting pain points and delivering actionable insights to team managers; improved staff behavior and communication, driving a significant increase in customer satisfaction (CSAT) scores.
- **Secure Capital Calls Process:** Designed and deployed a secure machine learning product that semi-automated a historically manual capital calls process, leveraging intelligent document processing (IDP) to extract critical metadata from emails and unstructured attachments — significantly reducing operational risk and accelerating processing times.
- **High-Performance Compliance Engineering:** Accelerated the implementation of mandatory AML-CFT (LCB-FT) compliance directives by modernizing the core data infrastructure; migrated legacy SAS codebases to Apache Spark and, ultimately, to GPU-accelerated computing, enabling near-real-time transaction screening on massive financial datasets.

CERTIFICATIONS

- Microsoft Azure Data Engineer Associate
- SAFe 6 Practitioner

LANGUAGES

French — Native
Arabic — Native
English — Professional (C1)

Research & Education

SupAgro / University of Montpellier · Institut Stanislas, Saint-Raphaël | Dec. 2011 – Sep. 2017

- **Ph.D. Research:** Conducted Ph.D. research in applied mathematics (dynamical systems, PDEs) focused on global warming, with results published in peer-reviewed international journals.
- **Teaching:** Lectured in mathematics, statistics, and data analysis at graduate and undergraduate levels, building advanced skills in translating complex concepts for diverse audiences.

EDUCATION

MSc in Data Science & Computer Science — University of Nice Sophia Antipolis, France, 2018

Ph.D. in Applied Mathematics — University of Montpellier, France, 2015

MSc in Mathematics, Statistics & Applications — SupAgro / University of Montpellier, France, 2011

PUBLICATIONS

Author of multiple peer-reviewed articles published in international journals, including Differential Equations and Dynamical Systems and Chinese Annals of Mathematics.