

Chayma Rhaïem

AI / ML Engineer

Location: Tunisia

Phone: +216 26364009 Email: rhaïem.chayma@gmail.com

LinkedIn: [linkedin.com/in/chayma-rhaïem/](https://www.linkedin.com/in/chayma-rhaïem/)

Portfolio: <https://chayma-rhaïem-portfolio.vercel.app/>

Professional Summary

Applied AI Engineer with 2+ years building production ML systems and cloud applications. Strong focus on bridging the gap between SOTA research and production environments. Specialized in LLM systems, Inference Optimization, and enterprise AI automation.

Technical Skills

- **Artificial Intelligence/GenAI:** Pytorch, Fine-Tuning, LangChain, RAG, Multi-agent systems, Vector DBs (Pinecone, Qdrant, FAISS, MongoDB), Neo4j, Transformers, Prompt Engineering
- **Backend & Cloud:** FastAPI, Streamlit, Spring Boot, AWS (Glue, Bedrock, S3, Redshift, QuickSight), SAP Analytics Cloud, Firebase
- **Languages:** Python, R, Java, Pyspark, Javascript, Dart
- **DevOps & MLOps:** Jenkins, Docker, Git, SonarQube, Nexus, Grafana, Prometheus
- **Web Scraping:** Selenium, Scrapy, Playwright, BeautifulSoup

Professional Experience

Full-Stack Engineer

Sep 2025 – Present

Freelance Project

Project Highlights – Client in B2B transportation sector:

- Designed and deployed cloud-based architecture using Firebase and Cloud Functions for real-time trip management
- Built intelligent dispatching system leveraging spatial optimization algorithms for driver assignment under spatio temporal constraints

AI Engineer

Jul 2024 – Jul 2025

Avaxia Group, Tunis, Tunisia

Project Highlights – Client in Logistics & Communication Sector, Europe:

- Developed RAG-based SAP monitoring system analyzing system health and detecting anomalies in transaction codes. Recommending fixes from system documentation, SAP notes and domain knowledge, reducing manual checks and downtime risks.
- Built hybrid RAG architecture combining Knowledge graphs and vector databases for automated root-cause analysis (RCA).
- Created automation scripts using Python and Bash to support log analysis, and system checks.

Machine Learning Engineering Intern

Feb 2022 – Jul 2022

BFI Groupe, Tunis, Tunisia

- Deployed credit risk scoring models for African banking sector with Basel II and IFRS 9 compliance requirements
- Ensured regulatory compliance: Built production-grade validation pipelines aligned with IFRS 9 reporting standards

Education

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|---|------|
| Computer Science Engineering Degree, Specializing in Data Science <i>Ecole Supérieure Privée d'Ingénierie et de Technologies (ESPRIT)</i> | 2025 |
| Bachelor's Degree in Software Engineering & Information System <i>Polytech-INTL</i> | 2022 |

Languages

Arabic: Native Proficiency

English: Full Professional Proficiency - C1 (IELTS Academic)

French: Full Professional Proficiency - C1 (TCF TP)

Certifications

Microsoft Certified: Azure Data Scientist
Associate DP-100 (Jun 2024)

Natural Language Processing Specialization
– DeepLearning.ai (Nov 2024)

Hedera Hashgraph Developer Certification

SAP Certified Application Associate – SAP
Analytics Cloud (Mar 2022)

Building Transformer-Based NLP Applications
– NVIDIA (Apr 2024)

Key Projects

Smart PM Hub – AI-Enhanced Project Assistant
Live RAG-powered project management platform

- Delivered graph-enhanced project management system combining Neo4j knowledge graphs with LLM reasoning
 - Developed NLP pipeline processing 500+ Reddit threads and PMBOK 7 docs with 15s average response time
 - Created real-time KPI visualization dashboard with graph-based analytics serving live project data
- Tech Stack:** Python, Pytorch, Neo4j, Ollama, Streamlit, CUDA optimization

Innovest – AI Trading Platform
Real-time trading system for the Tunisian markets

- Created production trading system with real-time sentiment analysis processing 200+ daily financial articles
 - Increased backtest accuracy 15% : Integrated generative AI for document parsing and signal validation
 - Deployed cloud pipeline for live data: Supported real-time signal delivery to investment analysts
- Tech Stack:** Python, MongoDB Atlas, Timeseries forecasting and analysis, Pytorch

DevOps CI/CD Pipeline – Jenkins, Docker, Kubernetes

- Implemented complete DevOps automation for Spring Boot applications achieving 95% test coverage
 - Containerized production application stack with Docker Compose enabling seamless deployments
 - Set up monitoring dashboards in Grafana to track real-time metrics
- Tech Stack:** Jenkins, Docker, Kubernetes, Grafana, Prometheus