MEKHLOUFI Chaima

Artificial Intelligence & Data Science Engineer (student) | LLM · RAG · Docker · Linux
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PROFESSIONAL PROFILE

Final-year AI & Data Science engineering student (ENSIA, Algiers) who builds and ships production-oriented AI systems: on-premise LLM deployments, RAG assistants and containerized microservice platforms on Docker . Solid foundations in Python, NLP, deep learning and reinforcement learning, plus Java/Spring Boot backend experience. Comfortable in both Linux (advanced Ubuntu, shell, server setup) and Windows environments. Open to junior AI / ML / Data / DevOps engineering roles, freelance or part-time, remote or on-site.

PROFESSIONAL EXPERIENCE

AI Developer, Incubatee 2026
Algeria Telecom Incubator, Algiers

- Design a privacy-preserving browser extension powered by a local LLM that prevents confidential enterprise data from reaching external AI services.
- Architect an on-device inference pipeline: model quantization, prompt sanitization and context-aware filtering for zero data leakage.
- Evaluate efficient local LLM deployment strategies under strict resource constraints.

Artificial Intelligence Intern Sep 2025
GEAT, Batna, Algeria

- Designed and deployed a local RAG-based assistant automating Quality Management System (QMS) documentation.
- Built a semantic search engine over internal documents using FAISS and LangChain.
- Integrated and fine-tuned a local LLM adapted to on-premise deployment constraints.

Data Science & AI Intern Jun – Jul 2025
CDTA (Advanced Technologies Development Center), Algiers

- Processed large-scale 3D point-cloud datasets; applied DBSCAN and K-Means for structure segmentation and classification.
- Developed 3D visualization pipelines that directly supported technical decision-making.

KEY PROJECTS

Enterprise Document Management System (DMS) 2025 – 2026
Docker · Java / Spring Boot · React · Microservices · REST API · CI/CD · github.com/chaima-m/DMS

- Designed and deployed a company DMS as containerized microservices (authentication, documents, comments, API gateway, ESB orchestration, translation) with a React/Vite web interface.
- Containerized every service with Docker and Docker Compose; orchestrated on Kubernetes with Deployments, Services, Ingress, ConfigMaps/Secrets and persistent volumes for stateful document storage.
- Applied enterprise-computing practices: autoscaling, high availability (health probes, rolling updates), access control (RBAC) and secure configuration.
- Set up monitoring/logging and automated build-and-deploy workflows with Git and container registries; developed and deployed on Ubuntu/Linux.

Smart Front-Office RAG Assistant, Algérie Télécom (Forsa Hackathon) 2025
Python · FastAPI · ChromaDB · Sentence Transformers · Tesseract OCR · github.com/chaima-m/RAG-ChatBot

- Built a bilingual (French/Arabic) RAG assistant that answers agents' questions on commercial offers, partner agreements and procedures, with source tracking and responses in under 3 seconds.
- Developed the REST API (FastAPI), OCR ingestion of scanned documents and a web chat interface.

Arabic Grammar AI Assistant 2025 – 2026
Python · Hugging Face · LangChain · Fine-tuning · RAG

- Curated a domain-specific Arabic grammar corpus and fine-tuned an Arabic LLM for I'rab analysis, sentence correction and rule explanation.
- Built a RAG pipeline for dynamic grammar-rule retrieval, improving factual accuracy.

E-Commerce Dynamic Pricing with Reinforcement Learning 2026

Python · PyTorch · MAML · DQN

- Implemented a Deep Q-Network for pricing optimization in simulated markets, with MAML for fast adaptation to new product contexts.

EEG Signal Classification (Brain-Computer Interface) 2025

Python · TensorFlow · Keras · MNE

- Designed CNN and LSTM pipelines for robust classification of EEG signals.

Timetable Optimization System, ENSIA 2023 – 2024

Genetic Algorithms · CSP

- Built an AI scheduling system for all academic levels, substantially reducing scheduling conflicts.

Other projects: K-Means / hierarchical clustering for academic orientation · ARIMA sales forecasting in R · React.js / Tailwind freelance-platform frontend.

TECHNICAL SKILLS

AI / ML: Machine Learning, Deep Learning, NLP, Computer Vision, Reinforcement Learning, LLM Fine-tuning, RAG

Frameworks: PyTorch, TensorFlow, Keras, Hugging Face, LangChain, Scikit-learn, OpenCV, Pandas, NumPy

Operating Systems: Linux – Ubuntu (advanced: Bash, server setup, Docker/K8s), Windows (advanced)

DevOps & Infrastructure: Docker, Docker Compose, Kubernetes, CI/CD, Git/GitHub, Microservices, Monitoring & Logging, Distributed & High-Performance Computing

Languages: Python (advanced), Java, C++, JavaScript,, Bash

Web & Mobile: Spring Boot, FastAPI, REST APIs, React.js, Tailwind CSS, Flutter

Tools: Jupyter, VS Code, Jira, Asana

EDUCATION

Engineering Degree, Artificial Intelligence & Data Science Sep 2022 – Jun 2027

ENSIA – National Higher School of Artificial Intelligence, Algiers

- Coursework: Machine Learning, Deep Learning, NLP, Computer Vision, Reinforcement Learning, Big Data & HPC, Distributed Systems, Optimization.
- Winner, Smart Cities Ideathon, Alger ESHRA (Feb 2025): AI-based urban solution.

LANGUAGES

Arabic: Native | French: Professional (C1) | English: Professional (B2/C1)