

Amroug Nisrine

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Portfolio: nisrineamroug.dev

EDUCATION

Moroccan School of Engineering Sciences (EMSI) <i>Artificial Intelligence & Data Science (5th year, 5-year program)</i>	Casablanca, Morocco Oct 2022 – May 2027
IMANE EL WIFAK HIGH SCHOOL <i>Baccalaureate in Physical Sciences</i>	Casablanca, Morocco Oct 2021 – June 2022

EXPERIENCE

Software/AI Engineering Intern <i>AriMayi</i> - Contributing to a digital platform supporting students throughout their training journey and integrating AI systems. - Technologies: Spring Boot, Next.js, MinIO, RAG, PostgreSQL, Prompt Engineering.	July 2026 – Present <i>France (Remote)</i>
Project Lead (Internship) <i>Intellcap</i> - Contributing to a large-scale ERP platform built on microservices architecture across backend, frontend and data components. - Worked with Spring Boot, Flask, Next.js, PostgreSQL, MongoDB, Redis and Docker in a collaborative development environment.	July 2025 – Present <i>Rabat, Morocco</i>
Software Engineering Intern <i>Diravenir</i> - Developed a full-stack academic guidance platform integrating application logic, data management and backend services. - Worked with Django, React.js, Redis and PostgreSQL across the application stack.	July 2025 – Sep 2025 <i>Casablanca, Morocco</i>
Web Development Intern <i>Royal Air Maroc</i> - Developed a web application for managing and optimizing customer loyalty programs. - Worked on frontend integration and documented the implemented solution and recommendations.	June 2023 – July 2023 <i>Casablanca, Morocco</i>

PROJECTS

LexAssistant: Production-Grade RAG Assistant for Moroccan Labor Code <i>LangChain, Groq</i> - Designed a RAG system achieving 96% recall with hybrid BM25 + vector retrieval, reducing API costs by 60% and latency by 40%. - Implemented RAGAS evaluation, Redis semantic caching and Dockerized FastAPI services with authentication, rate limiting and LangSmith observability.	2026
Insurance Callbot avec RAG Q&A <i>JavaScript, n8n, Vapi, ChromaDB, Gemini API</i> - Developed a voice-based insurance support callbot using Vapi, n8n and Gemini API, achieving 1.8s average response latency. - Implemented a ChromaDB-based RAG pipeline for contract question answering, achieving 87% recall.	2025
Intelligent Water Resource Management <i>Python, Pandas, scikit-learn, Flask, SQLite</i> - Developed predictive models for water-demand forecasting and distribution-inefficiency detection, achieving 89% accuracy. - Built a Flask REST API and optimized data processing with Pandas vectorization, improving performance by 60%.	2025

TECHNICAL SKILLS

AI/ML: RAG, LLMs, Prompt Engineering, Vector Embeddings, Hybrid Search, BM25, Cross-Encoders, RAGAS
LLM & AI Tools: LangChain, LangSmith, Ollama, Groq, Gemini API, ChromaDB
Machine Learning: scikit-learn, Predictive Modeling, Time Series Analysis, Pandas, NumPy, Matplotlib
AI Systems & APIs: FastAPI, Flask, REST APIs, Redis, Async Processing, WebSockets
Software Engineering: Python, Java, JavaScript, Spring Boot, Django, React, Next.js
Infrastructure & Tools: Docker, Git, CI/CD, GCP, PostgreSQL, MongoDB, Jira, GitHub, Postman, n8n, Linux/Bash