MOHAMED EL-HOUARY

Junior AI Engineer | LLM, RAG & Agentic Systems

PHONE: +212760777209 | E-MAIL : mohamed.elhouary.dev@gmail.com

SUMMARY

Software Engineering student focused on AI Engineering, LLM applications, RAG, and agentic systems, with hands-on and project-based experience in Python, LLM integration, AI infrastructure, and software engineering.

TECHNICAL SKILLS

- **AI & LLMs:** LLMs, RAG, Prompt Engineering, MCP
- **AI Agents:** Agents, Tool Calling, LangChain, LangGraph
- **Retrieval:** Embeddings, Vector Databases FAISS,ChromaDB, BM25, TF-IDF, Recall@K
- **Backend:** Python, FastAPI, Pydantic

PROJECTS

Agent Smith | Autonomous AI Code Agent

Developing an agentic AI framework capable of reasoning, generating code, executing it safely, observing results, and iterating autonomously.

mplementing LLM tool calling, MCP integration, sandboxed code execution, multi-provider LLM support andmodel benchmarkingusing Python

ft_transcendence | Full-Stack Web Application

Developing a containerized application integrating LLM interfaces, Retrieval-Augmented Generation (RAG), and voice/speech capabilities.

Building AI services for contextual information retrieval, streaming model responses, and interactive powered features

RAG Against the Machine | Retrieval-Augmented Generation

Developing a RAG system for codebase indexing, contextual retrieval, and grounded answer generation using Qwen3.

Implementing Python-based document chunking, BM25/TF-IDF search, and retrieval evaluation using Recall@K.

Inception | Multi-Service Docker Orchestration

Designed anautonomoussystem using Dockertocontainerize Nginx, WordPress, and MariaDB.

Automated system monitoring to ensure high availability and performance tracking.

EDUCATION

1337 UM6P – 42 Network

Software engineering
2024-2026

ADDITIONAL INFORMATION

- **Languages** : English,French,Arabic.
- **Github** : https://github.com/M-elhouary
- **LinkedIn** : https://www.linkedin.com/in/mohamed-el-houary
- **Portfolio**: mohamed-elhouary.me