Kamal Lahouir

📞 +212 6 2517-6020 ✉ kamal.eddine.lahouir@gmail.com 🔗 LinkedIn

Professional Summary

AI Engineer with 2+ years of experience developing LLM-powered solutions and scalable AI systems. Specialized in RAG implementations, prompt engineering, and enterprise AI integration.

Education

High National School for Computer Science and Systems Analysis (ENSIAS)　　　Sep 2020 - July 2023
Engineering degree, AI engineering

Abulcasis International University of Health Sciences (UIASS)　　　Sep 2019 - July 2020
Higher School Preparatory Classes - Math and Physics Elite Classes (MP*)　　　*Rank 919*

Work Experience

Red Nucleus　　　Aug 2023 – Present
AI Engineer　　　*Full-Time*

- Spearhead the development of advanced AI solutions, researching trends in AI like Large Language Models and Generative AI to inform strategy
- Architect scalable AI systems using frameworks like LangChain and participate in project management from conceptualization to deployment
- Develop and test AI-driven solutions to ensure high performance and ethical standards
- Dedicated to leveraging AI to drive innovation and operational excellence at Red Nucleus

Red Nucleus　　　Feb 2023 – Aug 2023
AI Engineer Intern　　　*Full-Time*

- Supported AI integration to enhance platform functionality and user experience
- Researched e-learning trends and designed practical AI solutions
- Contributed to platform upgrades and assisted in prototyping AI applications
- Applied academic knowledge to improve educational technology

Projects

AI-Powered Chatbot with RAG capabilities (LLM/Generative AI)　　　June 2024 - Present

- Developed intelligent chatbot solution compatible with SCORM package integration using LangChain and vector database technology
- Built comprehensive FastAPI server with advanced prompt engineering to ensure responses remain within content boundaries
- Implemented audio input processing and developing text-to-speech functionality for enhanced user interaction
- **Technologies**: LangChain, Pinecone, Azure OpenAI, Python, PostgreSQL, FastAPI

AI-Powered Human Response Evaluation Tool (LLM/Generative AI)　　　December 2023 - June 2024

- Created intelligent evaluation system analyzing human responses against customizable criteria with automated scoring and AI-generated feedback
- Developed flexible prompt adaptable to various evaluation needs for enterprise deployment
- Implemented scalable LangChain-based architecture with comprehensive feedback generation tailored to individual responses
- **Technologies**: LangChain, Azure OpenAI, Python, FastAPI

Technical Skills

AI/ML: Applied Mathematics, Statistical Learning, Data Science/Engineering, Artificial Intelligence, Machine Learning/Deep Learning, Generative AI and LLMs, Prompt Engineering

Programming Languages: Python, Julia, SQL

Web Technologies: HTML, CSS, JavaScript

Frameworks & Tools: TensorFlow, Keras, PyTorch, Scikit-Learn, Hadoop, Kafka, Spark, Flask, Docker, Git

Cloud Services & APIs: AWS AI Services, LangChain API, Groq API, OpenAI API, Open-source LLMs

Soft Skills: Communication, Leadership, Reporting

Languages

- **Arabic**: Native ● **English**: Fluent ● **French**: Fluent ● **Spanish**: Beginner