








MOHAMED AMINE MISSAOUI

DATA ENGINEER

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PROFILE

Junior AI Engineer with hands-on experience in building scalable data pipelines, deploying RAG-based AI systems, and developing end-to-end solutions in cloud environments.

EDUCATION

NATIONAL ENGINEERING DIPLOMA IN DATA AND DECISION SYSTEMS ENGINEERING

National School of Electronics and Telecommunications of Sfax (ENET'Com)

2022-2025

PREPARATORY CYCLE FOR ENGINEERING STUDIES

Preparatory Institute for Engineering Studies of Sfax (IPEIS)

2020 - 2022

PROJECTS

1. AI-POWERED RECRUITING ASSISTANT

- Automated the ingestion of resumes from emails via IMAP, storing documents in Azure Blob Storage.
- Extracted text from resumes using Mistral OCR, then converted it into structured JSON data.
- Designed an AI agent based on Mistral LLM capable of matching candidates to job offers, answering recruiter queries, and generating daily BI reports with Power BI, automatically emailed to HR teams.
- Orchestrated the entire pipeline using Apache Airflow and containerized the infrastructure with Docker.

2. YOUTUBE VIDEO CHATBOT

- Automatically transcribed YouTube videos using the Whisper API.
- Stored vector embeddings from transcriptions in ChromaDB for semantic retrieval.
- Integrated Cohere LLM with LangChain to enable dynamic, contextual interactions with the chatbot.
- Developed an API using FastAPI and deployed the application on Hugging Face Spaces.

CERTIFICATIONS

- Microsoft Certified:** Azure AI Fundamentals
- Microsoft Certified:** Azure Data Fundamentals
- TOEIC Certificate:** B2 Level

PROFESSIONAL EXPERIENCE

1. DATA ENGINEERING & AI INTERN

IT SERV COMPANY -- SFAX, TUNISIA

FEB 2025- JUN 2025

- Designed an ETL pipeline to extract and structure over 1,350 disease profiles from web sources into MongoDB.
- Developed a multimodal RAG pipeline connected to vector database (FAISS) with advanced prompt engineering to enhance diagnostic accuracy and generate medical reports from patient symptoms.
- Built a scalable backend API using FastAPI, integrated with an interactive user interface developed in React.

2. DATA ENGINEERING INTERN

DJAGORA FOUNDATION -- SFAX, TUNISIA

JUN 2024- AUG 2024

- Orchestrated the end-to-end pipeline for collecting, processing, and storing weather data in an Azure SQL database using Apache Airflow.
- Designed and deployed a real-time weather monitoring dashboard with Power BI.
- Integrated time series forecasting models to deliver predictive insights on weather trends.

3. DATA SCIENCE INTERN

TUNISIE TELECOM - REMOTE

JUN 2023- JUL 2023

- Automated the extraction, processing, and annotation of technical incident alerts to create a structured dataset.
- Fine-tuned a BERT model using PyTorch (achieved 96% accuracy) to develop a recommendation system for appropriate solutions.

COMPETENCES

- Languages de Programmation :** Python, SQL, Java
- ETL/ELT:** Talend, SSIS, SSMS
- Databases:** PostgreSQL, MongoDB, Azure SQL
- GenAI:** LLM, LangChain, RAG, AI Agents
- Visualization & BI:** Power BI, Tableau
- Workflow Orchestration:** Airflow, Docker, GitLab CI/CD
- Big Data:** Apache Spark, Kafka, Databricks
- Cloud:** Azure, AWS
- Machine Learning:** Scikit-learn, PyTorch, MLflow
- APIs & Backend:** FastAPI, REST APIs