# Meriam Sikini

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### **EDUCATION**

Master in Big Data, AI and advanced applications (M2), University Ibn Tofail Bachelor of Mathematical and computer Sciences (SMI), University Ibn Tofail

2024- 2026

2021-2024

### Work EXPERIENCE

## AI & MLOps Intern | XAI

Aug 2025 - Sept 2025

- Built a **Retrieval-Augmented Generation (RAG) chatbot** leveraging news data, enabling real-time question answering.
- · Collected and ingested data from News API into MongoDB Atlas, and applied an embedding model for semantic search.
- · Deployed the system with FastAPI and designed a simple web interface for interactive querying.
- Applied MLOps practices (Docker, MLflow) to streamline model deployment, tracking, and monitoring.

#### **PROJECTS**

## Moroccan Political Insight - Github

- Built a real-time Big Data pipeline to monitor and analyze political sentiment in Morocco. Tweets are collected manually from social media, streamed, cleaned, classified using an LLM, and visualized on an interactive dashboard presenting key insights and analytics.
- **Tech stack used:** Firebase Realtime Database, Kafka, Apache Spark Streaming, Hadoop HDFS, Mistral 7B (Colab), Python, Streamlit, Pandas, NumPy, Matplotlib, Seaborn.

## End-to-End Job Intelligence System - GitHub

- Built an end-to-end data pipeline for job market analytics and recommendations. Includes web scraping, data cleaning, structured storage in Oracle DB, interactive dashboards, predictive modeling of in-demand jobs, and CV matching.
- **Tech stack used:** Python, Requests, BeautifulSoup, Selenium, regex, Oracle SQL, PyQt5, Matplotlib, scikit-learn, XGBoost, pdfminer, Pandas.

## **Smart Parking Detection-** GitHub

- Developed a computer vision system to automatically detect free vs occupied parking spaces in surveillance video. Processes video frames in real time, applies classification, and outputs annotated video with bounding boxes and live counts.
- Tech stack used: Python, OpenCV, scikit-image, scikit-learn (PCA + classifier), NumPy, Matplotlib.

## **SKILLS**

Programming Languages: C, C++, Java, Python, R

Machine Learning & AI: LLMs, Scikit-learn, XGBoost, RAG, NLP, OpenCV, Scikit-image

Data Collection & Processing: Pandas, NumPy, Matplotlib, Seaborn, Requests, BeautifulSoup, regex, pdfminer, Streamlit

Databases: Mongo DB, MySQL, Oracle DB, Firebase

Big Data & Distributed System: Hadoop, Spark Streaming, Kafka, Pig, Hive, HDFS

**Version Control Tools and IDE:** Git, Github, Visual Studio Code, R studio, Jira, Power Bi, Colab **Soft Skills:** Collaboration, Communication, Planning, Teamwork, Time Management

## **ACHIEVEMENTS & EXTRA-CURRICULAR ACTIVITIES**

- · Participated in the AI Ethics Summer School 2025 Pan-Africa Center for AI Ethics
- · Learning AI Through Visualization Columbia University
- Introduction to Generative AI AWS
- · Introduction to Career Skills in Data Analytics LinkedIn Learning