

# Omar Ouchchen

Data Engineer — AI & BI Solutions Developer — Data Science

Rabat, Morocco

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## **Profile**

Final-year Data Engineering student at **ESI Rabat**, specializing in **Data Engineering**, **Business Intelligence**, and **Applied AI (RAG, NLP)**. Passionate about transforming data into business value, I design **scalable and automated analytical solutions**. Available from **February 2026** for a **4–6 month final-year internship** in Data Engineering, Business Intelligence, or Data Science.

### Education

Engineering Degree – Data Science and Knowledge Engineering

School of Information Sciences (ESI), Rabat
Preparatory Classes (Maths–Physics)

Scientific Baccalaureate (Mathematics)

2023–2026

2021–2023

2021–2023

### Professional Experience

**Tamwilcom** — PFA Internship: Intelligent Conversational Assistant

Jul-Aug 2025

- Designed and deployed a RAG-based chatbot for financial product recommendations.
- $\bullet \;\; {\rm Stack:} \;\; {\bf Python}, \; {\bf FAISS}, \; {\bf FastAPI}, \; {\bf Streamlit}, \; {\bf MySQL}.$
- $\bullet$  Results: 89% accuracy, 2.3s response time, 60% of queries automated.

**Doosys** — Internship: Data Analysis

Jul-Aug 2024

- Performed text data analysis and built a **semantic search engine** using embeddings.
- Developed ETL pipelines and Power BI dashboards for KPI tracking.

### **Academic Projects**

RAG System - Retrieval Augmented Generation — PostgreSQL, FAISS, FastAPI, LangChain github.com/ouchchenomar/RAG\_sys

Built a **RAG** pipeline combining vector and relational databases for context-aware information retrieval. Enhanced document search precision and semantic understanding.

BI Dashboard - Sales Monitoring — Power BI, SQL, DAX github.com/ouchchenomar/PowerBI\_Suivi\_Ventes

Designed a BI dashboard with a **star-schema model (Clients, Products, Regions, Sales)** and dynamic **DAX KPIs. Impact:** Enabled sales and revenue performance tracking per region and category.

 ${\bf Agricultural\ Traceability\ System\ of\ Morocco}-{\it Dash,\ Flask,\ SQLAlchemy,\ Blockchain\ github.com/ouchchenomar/tracabilite\_agricol}$ 

Developed a national web platform integrating **Blockchain** to ensure authenticity and transparency of agricultural data. **Impact:** Full traceability from producers to consumers.

ML - House Price Prediction — Python, scikit-learn, Pandas, Streamlit github.com/ouchchenomar/ML\_housse\_prediction

Developed a **Random Forest regression model** for real estate price prediction with an interactive web app using Streamlit.

#### Technical Skills

Languages: Python, SQL, Java, JavaScript, R

Databases: Oracle, MySQL, PostgreSQL, SQLAlchemy, PL/SQL

AI / Data Science: Machine Learning, NLP, RAG, ETL, Statistics, SPSS

Cloud / DevOps: Oracle Cloud, Google Cloud, Docker BI / Visualization: Power BI, Tableau, Streamlit Languages: English, French, Arabic, Amazigh

#### Certifications

Oracle Database Foundations (In Progress)  $\cdot$  Machine Learning — Stanford  $\cdot$  Google Cloud Fundamentals  $\cdot$  Google Data Analytics — Google  $\cdot$  Python for Data Science — IBM  $\cdot$  Agile Project Management — Google

#### Activities

- Member of the ESI Programming Club.
- Tizguine Student Council organized Data & Cloud workshops.
- Ongoing tech watch on Data Engineering, Applied AI, BI, and Cloud.

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