

Imed Eddine Aouidane

DATA SCIENTIST

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PROFILE

Data Scientist acting as the bridge between raw data and business facts: I take large, messy datasets and turn them into statistical evidence — through exploratory data analysis, hypothesis testing, econometrics, and machine learning — then communicate it so decision-makers can act. Master's in Data Science for Economics & Business; experience across telecom, healthcare, oil & gas, and e-commerce. Founder of Auralytics AI, recognized by Algeria's Ministry of Knowledge Economy and Startups.

EXPERIENCE

Data Scientist — Data Science Immersion Program (DSIP4), Djezzy

Algiers, Algeria · Jun — Jul 2026

- Owned the data and intelligence track for a natural-language business assistant over 13 months of daily commercial KPIs — data catalogue, data quality framework, causal analysis, and the forecasting layer.
- Designed and applied a six-dimension data quality framework (completeness, accuracy, consistency, timeliness, uniqueness, validity) with severity tiering, and encoded the findings as automatic query-time guards so the assistant could not return unvalidated results.
- Established the lead-lag structure between commercial KPIs using cross-correlation, Granger causality and cointegration (ECM), separating genuine drivers from spurious correlation under HAC-robust inference.
- Built the forecasting and scenario service: 126 champion models selected from 245 candidates by rolling-origin backtesting against a seasonal benchmark, prediction intervals published only where empirically calibrated, and evidence-graded scenario simulation. 107 automated tests.

Freelance Data Scientist

Remote / Algeria · 2024 — Present

- Deliver end-to-end data projects — scoping, data collection, statistical analysis, modeling, and client-ready reporting — across multiple industries.
- Built an oil & gas analytics platform (Streamlit): EDA with correlation analysis and a bottom-hole-pressure model at 80% train/test accuracy, with automated report export.
- Scraped and normalized 2,500+ competitor e-commerce products into PostgreSQL, enabling market-positioning analysis via Power BI.
- Automated a travel agency's data entry (Selenium → WordPress), cutting manual workload ~5x.

Data Analyst Intern — MDM Hasnaoui

Oran, Algeria · Feb — Apr 2025

- Prepared industrial data for predictive use cases; aligned production data with KPIs and ran data-quality diagnostics upstream of models.

Data Analyst Intern — LITMED PRO

Batna, Algeria · Dec 2023 — Jan 2024

- Analyzed patient-level health datasets; EDA supporting process optimization and cleaning of structured medical records.

SELECTED PROJECTS

NVIDIA AI Revenue Impact Study — Master's Thesis (R, ARDL/ECM)

- Modeled the causal link between AI adoption and revenue (2015–2024): ARDL bounds cointegration ($F = 8.47$, $p < 0.001$), ECM with ~67% quarterly adjustment, CUSUM/MOSUM stability checks.

Cardiopulmonary X-ray Classification (Python, PyTorch)

- Multi-label ResNet-50 pipeline on 112k+ NIH chest X-rays; per-condition AUC-ROC evaluation and Grad-CAM explainability.

CardioBot — Clinical AI Assistant (Claude API, Notion)

- Telegram decision-support tool for a cardiologist at CHU Mustapha Hospital: natural-language retrieval over structured patient records, in active clinical use.

Climate Forecasting & Extreme Weather Detection (Python)

- Compared SARIMA, XGBoost, and LSTM on daily climate data (MAE/RMSE/MAPE); engineered lag features and a heatwave anomaly-detection module.

CORE SKILLS

Statistical Analysis

EDA · hypothesis testing · econometrics (ARDL, ECM, cointegration) · time series (ARIMA, SARIMA, ETS) · Granger causality · causal inference · rolling-origin backtesting · model diagnostics & validation

Machine Learning

scikit-learn · PyTorch · TensorFlow · XGBoost · LSTM · computer vision (ResNet, Faster R-CNN, YOLO) · Grad-CAM explainability

AI & LLM Systems

RAG · Text-to-SQL · prompt design · LLM evaluation · Claude API · local models (Ollama)

Data Engineering

Python (pandas, NumPy, statsmodels) · R · SQL / PostgreSQL · web scraping (Selenium) · ETL pipelines · Git

Communication & Delivery

Power BI · Streamlit · FastAPI · stakeholder reporting · requirements discovery · technical writing

EDUCATION

M.Sc. Data Science for Economics & Business

Graduate School of Economics, Oran · 2022 — 2025
Thesis: econometric modeling of AI adoption & financial performance (ARDL/ECM)

Preparatory Cycle, Management & Digital Economy

ESGEN, Kolea · 2020 — 2022

RECOGNITION

Innovative Project Award (2025)

Ministry of Knowledge Economy & Startups, for Auralytics AI — founder & builder.

We Make Future 2025 — Bologna

Represented Algeria's Graduate School of Economics at an international AI conference.

LANGUAGES

Arabic — native

English — C1

French — B2