

Imed Eddine Aoudane

DATA SCIENTIST

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SUMMARY

Data Scientist with a Master's in Data Science for Economics & Business and hands-on experience across telecom, healthcare, oil & gas, and e-commerce. Turns large, messy datasets into statistical evidence through exploratory data analysis, hypothesis testing, econometrics, and machine learning - then communicates it so decision-makers can act. Founder of Auralytics AI, recognized by Algeria's Ministry of Knowledge Economy & Startups.

CORE SKILLS

Statistical Analysis: exploratory data analysis (EDA), hypothesis testing, econometrics (ARDL, ECM, cointegration), time-series analysis (ARIMA, SARIMA, ETS), model diagnostics & validation

Machine Learning: scikit-learn, PyTorch, TensorFlow, XGBoost, LSTM, feature engineering, model evaluation (AUC-ROC, precision-recall), computer vision (ResNet, Faster R-CNN, YOLO), Grad-CAM

Programming & Data: Python (pandas, NumPy, statsmodels), R, SQL, PostgreSQL, web scraping (Selenium), ETL pipelines, Git

Visualization & Delivery: Power BI, Streamlit, FastAPI, seaborn, matplotlib, stakeholder reporting, technical writing

PROFESSIONAL EXPERIENCE

Data Science Intern - DSIP Program

Djezzy (Optimum Telecom Algeria) | Algiers, Algeria | 2026 - Present

- Own the exploratory data analysis phase on large-scale telecom datasets: data-quality profiling, distribution and correlation analysis, and segmentation hypotheses.
- Translate statistical findings into KPI-framed, business-facing insights for non-technical stakeholders (project details confidential).

Freelance Data Scientist

Remote / Algeria | 2024 - Present

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

Data Analyst Intern - MDM Hasnaoui

Oran, Algeria | Feb 2025 - Apr 2025

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

Data Analyst Intern - LITMED PRO

Batna, Algeria | Dec 2023 - Jan 2024

- Analyzed and visualized patient-level healthcare datasets; delivered exploratory analysis supporting process optimization and cleaned 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 across 14 disease labels; per-condition AUC-ROC evaluation and Grad-CAM explainability.
- 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.
- 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.

EDUCATION

M.Sc. Data Science for Economics & Business - Graduate School of Economics, Oran | 2022 - 2025. Thesis: econometric modeling of AI adoption and financial performance (ARDL/ECM).

Preparatory Cycle, Management & Digital Economy - ESGEN, Kolea | 2020 - 2022

RECOGNITION & LANGUAGES

- 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 and innovation conference.
- Languages:** Arabic (native), English (C1), French (B2).