

ABDELMOUTALEB BENLYAZID

Data Scientist/Analyst

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Profile

Data Scientist/Analyst with a Business Analytics background and hands-on experience building data products across machine learning, NLP, business intelligence, and automation. Skilled in transforming raw business data into clean datasets, predictive models, evaluation workflows, dashboards, and APIs.

Technical Skills

Data Analysis & Preparation: Python, SQL, pandas, NumPy, data cleaning, exploratory data analysis, feature engineering, reusable scripts, analysis-ready datasets.
Machine Learning: Supervised and unsupervised learning, classification, regression, forecasting, clustering, ranking systems, scoring logic, model selection, scikit-learn, CatBoost, XGBoost.
Model Evaluation & Validation: Train/validation/test split, cross-validation, ROC-AUC, F1-score, precision, recall, RMSE, MAE, threshold selection, calibration, robustness testing, error analysis.
NLP & Semantic AI: Text preprocessing, information extraction, resume parsing, embeddings, sentence-transformers, semantic similarity, semantic search, retrieval systems, RAG-assisted applications.
Deep Learning: Neural networks, CNNs, image preprocessing, image classification, TensorFlow/Keras, training and evaluation workflows.
BI & Decision Support: Power BI, Power Query, DAX, KPI dashboards, star schema modelling, business reporting, HR analytics, financial analytics.
Automation & Integration: ETL workflows, RPA, Odoo ERP workflow integration, FastAPI model serving, structured data extraction, background processing, data validation, reconciliation, consistency checks, Git.
Currently Expanding: AWS (S3, SageMaker), Snowflake (SQL-based feature extraction), Apache Airflow (ML pipeline scheduling), PySpark (distributed feature engineering) – studied theoretically, hands-on project in progress.

Education

MSc – Business Analytics & Data Science – Université Internationale de Rabat (UIR) 2024–June 2026
PFE / Master Thesis: *Learning to Hire: An Embedding-Based Applicant Tracking System with Outcome-Aware Machine Learning for Recruitment Decision Support.*

Experience

Freelance Data Analyst & Data Scientist – Independent, multiple clients 2026–Present

- Delivered analytics, reporting, dashboarding, and data-science work for multiple clients across different business needs, while respecting client confidentiality.
- Cleaned, validated, and transformed spreadsheet and operational data into analysis-ready datasets; defined business KPIs and built decision-oriented Power BI dashboards and analytical reports, applying predictive modelling where descriptive analysis was not sufficient.

Data Scientist – NOVEC (Internship) Feb 2026–June 2026

- Delivered the recruitment intelligence system into live HR workflows, integrating it with Odoo ERP candidate records, job offers, recruitment stages, and user roles.
- Built Power BI dashboards for candidate pipeline monitoring, hiring progress, and stage conversion, and documented data flows, matching methodology, assumptions, and limitations for stakeholders.

Billing & Automation Agent – STE BNIZOLI Jun 2021–May 2024

- Managed invoices, quotations, and payment tracking, and built Excel-based tracking, validation, and automation workflows that standardized billing, reduced repetitive work, and improved operational reliability.

Featured Data Science Projects

Recruitment ATS Pro – Semantic Candidate Matching & Decision Support NLP / ML Product
Python, sentence-transformers, embeddings, semantic similarity, ranking metrics, Odoo 18, queue_job

- Built an applicant tracking system that extracts structured candidate data from unstructured CVs, embeds profiles and job requirements for semantic matching, ranks candidates with outcome-aware scoring, and promotes shortlisted profiles into native ERP records with background processing.

AutoValuate – Used Car Price Intelligence & RAG Assistant ML Product
Python, CatBoost, pandas, feature engineering, uncertainty estimation, embeddings, RAG, FastAPI

- Built an ML product that cleans used-car listing data, engineers vehicle features, predicts prices, returns confidence ranges and prediction drivers, and adds a RAG assistant for inspection, negotiation, and paperwork.

FaultForge – Model Reliability & Robustness Workbench ML Engineering
Python, scikit-learn, cross-validation, calibration, reproducible evaluation, SQLite, automated testing

- Built a workbench that stress-tests binary-classification pipelines across missingness, noise, distribution shift, and invariance, keeping evidence reproducible through immutable model versions, SHA-256 fingerprints, and deterministic seeds; 50 automated backend tests, exercised on datasets up to 100,000 rows.

Executive Performance Analytics – Power BI Decision System BI / Product Analytics
Power BI, DAX, Power Query, star schema modelling, KPI design, cohort and churn analysis

- Built a five-page executive system on an eight-table star schema with 30+ DAX measures and 25+ Power Query transformations, tracking MRR, churn, retention, SLA, CSAT, and product engagement.

Languages

Arabic (Native) English (Fluent) French (Professional)