Moez Dbira

Data Scientist / Data Engineer, 4 years of experience

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English: Professional - **French**: Bilingual - **Arabic**: Native

PROFESSIONAL EXPERIENCE

Schneider Electric   Paris – France (Full Remote)

Data Engineer   December 2021 - Present

- Automated data pipelines in Python and optimized Redshift queries, cutting processing time by 50% and enabling faster feature extraction for downstream ML models.
- Designed monitoring dashboards with data quality and performance metrics, improving reliability of training datasets and ensuring consistent input for analytics and predictive models.
- Led the migration to a modern orchestration stack (dbt + Airflow), streamlining reproducibility of transformations and accelerating deployment of data science workflows at scale.

Generix Group   Paris – France

Data Scientist intern   July 2019 – January 2020 & May 2021 – November 2021

- Built a Python ETL pipeline (S3 → Redshift) to calculate 100+ KPIs, with automated dashboards in Quicksight.
- Applied SARIMAX forecasting to warehouse workload, reducing seasonal workforce costs by 20%.
- Developed a scalable asynchronous API (FastAPI, Celery, Redis) for truck load optimization, combining heuristics with deep reinforcement learning (Keras), reducing transportation costs by 15% and improved handling of priority units.
- Conducted a computer vision PoC (OpenCV) to automate parcel counting on pallets, assessing feasibility for deployment in logistics operations.

Virtuo Technologies   Paris – France

Data Scientist intern   Mars 2020 – August 2020

- Improved the time series demand forecasting model by automating retraining and fine-tuning (Python, R), increasing predictive accuracy by 5% and reducing manual intervention
- Optimized the car supply allocation model (SGD-based in R), cutting computation runtime by 5 hours and improving responsiveness for fleet management decisions.

SKILLS

- **Programming languages:** Python (Pytest, Pyenv, FastAPI, Celery), SQL (PostgreSQL, Redshift, SQLite), R, JavaScript (React, Next.js).
- **Machine Learning / AI:** Scikit-learn, LightGBM, XGBoost, Prophet, PyTorch, TensorFlow, Hugging Face Transformers, YOLOv8 (Torch, ONNX), OpenCV, MediaPipe, Reinforcement Learning.
- **Data Science / Analytics:** Pandas, NumPy, Matplotlib, Plotly, Time Series Forecasting, NLP (sentiment & topic modeling), Computer Vision.
- **MLOps / Deployment:** Docker, Kubernetes, MLflow, ONNX model versioning, GitHub, Redis/RQ (task queues), Ray.
- **Data Visualization:** Tableau, Quicksight, Grafana, Prometheus, Streamlit.
- **Cloud & Big Data:** AWS (S3, RDS, Redshift, Lambda, EC2), MinIO, HDFS.
- **Soft skills:** Communication, adaptability, problem-solving.

PROJECTS

Nutrition Tracking Assistant with RAG & Computer Vision
- Engineered a full-stack AI assistant integrating RAG for natural language queries and computer vision calorie estimation from food images, enabling users to log meals, workouts, and receive personalized nutrition insights.
- Deployed a scalable backend with FastAPI + Docker + GPU inference (Hugging Face models)
- Implemented Grafana + Prometheus monitoring, reducing system downtime and improving observability of LLM latency and token usage.

Fan-Engage — Football CV Analytics
- Designed an end-to-end football analytics pipeline: fine-tuned YOLOv8 (Torch) for player/ball detection, converted to ONNX for versioning and deployment, and applied pitch homography to enable advanced match metrics.
- Orchestrated asynchronous processing with Redis/RQ and stored artifacts in MinIO, keeping the UI responsive during long-running video jobs.
- Delivered interactive football metrics visualizations (possession, territory, momentum) with clean FastAPI APIs and Next.js overlays synced to video playback.

EDUCATION

CentraleSupélec   Paris – France
M.S. in Artificial Intelligence   2017 - 2021

INTERESTS

- Football, tennis, manga, music, and travel.
- VP Voyage, *Bureau des Internationaux (BdI)*, CentraleSupélec — responsible for organizing international students trips and cultural events.
- Co-founder of the first student council at Lycée Pilote de Gabès.
- Contributor to the organization of two TEDx events in Gabès.