AI Developer & Data Scientist
Modeling, Optimization & Deployment
Georges BALOGOG

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Profile

AI Developer and Data Scientist specialized in the **design of predictive and prescriptive models** integrated into **industrial-grade data pipelines**. Strong expertise in **time series forecasting**, **mathematical optimization**, and **deployment of decision-oriented AI solutions**. Proven experience delivering end-to-end data projects, from data ingestion to model exposure through APIs and analytical dashboards.

Key Skills — AI & Data Science

- **Predictive modeling**: time series forecasting (SARIMA, ETS), neural networks (RNN), exogenous variables, temporal validation, error analysis, and robustness assessment.
- **Optimization and hybrid AI**: linear and mixed-integer programming (LP, MILP) under uncertainty (RL, SDDP); integration of predictive models into decision-support systems.
- **Applied data engineering**: ETL/ELT pipelines, multi-source ingestion (ERP, files, APIs), transformation, data quality control, and traceability (Databricks, Power BI).
- **MLOps and industrialization**: design of reproducible workflows (preprocessing, training, evaluation), performance tracking, and full model lifecycle management.
- **Model deployment**: model serving with **FastAPI**, **Docker** containerization, cloud integration (Azure / AWS – local environments), and scaling with **Kubernetes**.
- **Languages and tools**: Python (Pandas, NumPy, PyTorch, TensorFlow, Scikit-learn, AutoML), advanced SQL, R; Power BI; Git, CI/CD.

Professional Experience

AI & Analytics Analyst — Supply Chain   *Adfast Corp, Montreal*
Sept. 2025 – Present

- Designed and implemented analytical data pipelines based on **Dynamics 365 SCM** to support predictive and prescriptive models.
- Developed optimization models (MILP) for warehouse slotting, replenishment, and operational decision support.
- Integrated model outputs into **Power BI** dashboards and automated decision workflows.
- **Impact**: measurable improvements in operational efficiency, reduced unnecessary movements, and increased decision reliability.

AI Developer   *La Cité Collégiale, Ottawa*
2023

- Ecoenergy project: generation of personalized user feedback on energy consumption using *federated learning*.
- Developed forecasting models for operational planning (SARIMA, RNN).
- Implemented reproducible analytical pipelines and MLOps practices (versioning, deployment, monitoring).
- Delivered interactive dashboards to monitor model performance.

Data Analyst — Operations   *Total Cameroun*
2020 – 2022

- Automated large-scale operational and analytical reporting.
- Leveraged logistics and industrial data for performance analysis and planning.

Projects

- **Energy demand forecasting**: multivariate time series modeling incorporating weather and seasonality; performance evaluation and forecast stability analysis.
- **Energy systems optimization**: optimization models for smart microgrids with scenario analysis and operational reliability assessment.
- **Warehouse and supply chain optimization**: prescriptive models combining real-world data, physical constraints, and performance indicators.
- **Deployed AI pipelines**: end-to-end data projects including ingestion, modeling, API deployment, analytical visualization, monitoring, and model versioning.

Education

M.Sc. in Data Science — HEC Montréal — 2025
Specialization: statistical modeling, machine learning, optimization

Certificate in Applied Artificial Intelligence — La Cité Collégiale — 2023
Specialization: data collection and processing, model design and deployment (CI/CD)

B.Sc. in Telecommunications and Information Technologies — 2020
Specialization: antennas and transmission systems

M.Sc. in Electrical Engineering — ENSET Douala — 2019
Specialization: digital and power electronics, signal processing, nanotechnology

Professional Strengths

- Strong ability to bridge AI models with real-world operational constraints.
- Excellent technical communication and ability to translate complex concepts for non-technical stakeholders.
- High autonomy, scientific rigor, and strong product-oriented mindset focused on impact.