

Salif SAWADOGO

AI/ML Engineer - 5 years of experience

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Professional Experience

Senior AI & ML Engineer Consultant | [African Development Bank](#)

Since Jan. 2026

📍 *Abidjan, Côte d'Ivoire*

Scope: apply AI techniques to real use cases according to the Bank's priorities.

- **Agentic AI systems** on a ReAct architecture: reasoning loop, planning and action execution
- **Tool calling:** tool schema design, argument validation and return-error handling
- **Agent harness:** context orchestration, memory and execution guardrails for agents
- Design and deployment of production-ready ML systems and MLOps pipelines

Stack: Python, LLM APIs, agents & tool calling, MCP, Docker, CI/CD

Adjunct Lecturer - MSc in AI (S8) | [Institut 2iE](#)

May - July 2026

📍 *Ouagadougou, Burkina Faso*

Scope: design and teach two course units of the MSc in Engineering & Applied AI.

- **Cloud-native applications:** design, CI/CD, performance, application security
- **Security and AI in the cloud:** IAM, encryption, GDPR, FinOps, deployment of AI solutions
- Supervised capstone project over 12 sessions, from design to production

Co-founder & CTO | [Burkimbla](#)

Since Mar. 2025

📍 *Paris, France*

Scope: build AI models for low-resource languages.

- **Technical leadership:** architecture choices, language prioritisation and model roadmap
- **Mooré models:** ASR (speech-to-text), text-to-speech and machine translation
- **LLM fine-tuning** with SFT, LoRA and QLoRA to train under data and GPU constraints
- **Open-source release** of models and datasets (huggingface.co/burkimbla)

Stack: Python, PyTorch, Hugging Face, ASR/TTS/NMT, SFT, LoRA, QLoRA, MLOps

Data Scientist - MLOps & Generative AI | [SAFRAN](#)

Nov. 2022 - Dec. 2025

📍 *Paris, France*

Scope: development of AI and data solutions within SAFRAN's Data Center of Excellence.

- **Patent, named inventor:** aircraft brake wear inferred from post-landing cooling time, with the environment modelled out by XGBoost regression. Published as [WO2026032835A1](#), Feb. 2026
- **Multi-agent chatbot** built from scratch with LLM as a service, agentic AI, tools & MCP
- **LLM evaluation framework** with enforced service level objectives on factual accuracy, judged quality, toxicity, PII exposure and latency, wired to release gates that block a promotion on a missed target
- **AI model deployment** to production with automated monitoring and alerting
- **Predictive maintenance** with ML on aerospace equipment (**1 model already in production**)
- **MLOps architecture:** full CI/CD pipeline with automated tests and model validation
- **AWS Data Science platform** built on EKS for the team (scalability and security)
- **DataScientest mentor** supporting career transitions for SAFRAN employees

Stack: AWS (EKS, SageMaker, Lambda), Docker, Kubernetes, MLflow, Python, Spark, CI/CD, Dash, LangGraph, LangChain

📍Paris, France

Scope: move from traditional GLM models to modern machine learning.

- **Big Data migration to Azure** with full CI/CD pipeline integration
- **Advanced risk models** (claim frequency and average cost) meeting regulatory requirements
- **Performance optimisation:** 40 % less processing time
- **GDPR compliance:** privacy-preserving data solutions
- **Model validation** through gradual rollout and continuous post-release monitoring, under an explainability constraint: a supervisor has to be told why a price moved
- **1st place**, AXA Direct internal data science competition ([public solution](#), in R)

Stack: Azure, Python, R, Databricks, Power BI, Scikit-learn, Spark

Machine Learning Engineer | CDandLP

Jan. - Apr. 2022

📍Paris, France

Scope: optimisation of the recommendation algorithms of a vinyl records marketplace.

- **Data deduplication and normalisation** using advanced NLP techniques
- **Semantic search engine** based on BERT embeddings to improve user experience
- **Causal inference** to measure the engine's real impact, the rollout being gradual rather than randomised: Causal Forest, Double ML and propensity score matching, giving **+29 % user satisfaction**, $p < 0.01$

Stack: Python, Spark, Scikit-learn, NLP, TensorFlow, BERT, REST APIs

Spatial Data Scientist | Equatorial Coca-Cola Bottling Company

Feb. - Sep. 2021

📍Casablanca, Morocco

Scope: distribution optimisation and demand forecasting through geospatial modelling.

- **Data enrichment** of internal data with OpenStreetMap for predictive analytics
- **Propensity scores and customer matching** with behavioural segmentation
- **Catchment areas** and geographic segmentation to optimise distribution
- **Sales forecasting** by geographic segment, **deployed to production on Azure**

Stack: Azure, Python, Databricks, MLflow, OpenStreetMaps, geostatistics

Education

MSc MASERATI - Data Science | [Université Paris 12](#)

2021-2022

📍Paris, France - [Eiffel Excellence scholarship](#) for the AI specialisation

Engineering degree in statistical modelling and data science | [INSEA](#)

2018-2021

📍Rabat, Morocco

Preparatory classes in mathematics and physics | [Université Sidi Mohamed Ben Abdellah](#)

2016-2018

📍Fez, Morocco

Technical Skills

Languages: Python, R, SQL, [SAS \(certified\)](#)

ML & statistics: PyTorch, TensorFlow, scikit-learn, Spark, deep learning, NLP; causal inference (Double ML, Causal Forest, propensity scores), uncertainty quantification (conformal prediction, bootstrap intervals), time series (VAR, VECM, SARIMAX), Bayesian statistics, geostatistics

LLM & agents: agentic AI (ReAct, tool calling, agent harness, MCP), LangChain, LangGraph, pydantic-ai, LiteLLM, Transformers, PEFT, Unsloth; fine-tuning (SFT, LoRA, QLoRA)

Evaluation & observability: Langfuse, MLflow, golden datasets, LLM-as-judge, drift detection (KS, PSI); experiment design (A/B, power analysis, alpha spending, McNemar)

Cloud & MLOps: AWS (EKS, SageMaker, Lambda), Azure (Container Apps, AI Search, Databricks), Docker, Kubernetes, Terraform, CI/CD, Airflow, FastAPI

Data: PostgreSQL, MySQL, pgvector, LanceDB, Azure AI Search, Redis, SQLite

Spoken languages: French (native), English (professional working proficiency), Mooré (native)