Samuel D. Jaja

London | United Kingdom

ML/GenAI Engineer | Full-Stack Developer

Phone – +44 7537 978532
E-mail - samuel.jaja21@gmail.com
GitHub1 | GitHub2
LinkedIn
PSW Visa validity: July 2027

Professional Summary

AI/ML Systems Engineer and Full-Stack Developer with 5+ years of experience building intelligent systems that combine data engineering, machine learning, and cloud infrastructure. Skilled in LLM fine-tuning, Retrieval-Augmented Generation (RAG), and agentic AI using AWS (Lambda, SageMaker, Bedrock, Terraform). Experienced in distributed data processing with Apache Spark and PySpark on Databricks for scalable ML workflows and data lakehouse architectures, with cross-cloud experience in Azure and GCP. Strong background in Python, .NET, FastAPI, and React/Node for developing robust APIs and AI-driven applications. Passionate about creating production-ready, explainable, and compliant AI systems that improve human-computer interaction.

*W*ork Experience

Software Engineer (Python, .NET C#, Full-Stack)
Cyphercrescent ***Jan 2022 – Dec 2024***

- *Developed enterprise-grade backend services using C#, ASP.NET Core Web API, delivering 40% infrastructure cost savings. Integrated front-end interfaces with Vue.js/React and modularized components to boost productivity by 25%.*
- *Event-Driven Design: Implemented CQRS pattern with MediatR for command/query separation and event notifications, enabling loosely coupled microservices communication via Pub/Sub messaging patterns. Azure DevOps Integration.*
- *Collaborated with cross-functional teams to build scalable systems that supported real-time analytics and AI integration. Enabled a 70% growth in platform adoption by implementing efficient backend architectures, also using Azure blob storage.*

Software Engineer Intern (Engineering Applications) ***Jun 2019 – Dec 2019***
Integral Computing & Research Centre

- *Built computation tools using C# for engineering tasks, boosting team accuracy by 65%. Learnt Programming and Machine learning fundamentals.*
- *Developed internal automation scripts that streamlined repetitive calculations and analysis.*

Project Highlights

PRIME – Multi-Agent Financial Advisor (Enterprise Grade) ***Live in Production***

Tools/Technologies: *Python, FastAPI, AWS (App Runner, Bedrock, Lambda, S3 Vectors, SageMaker, EventBridge), Terraform, Docker, Playwright MCP, Next.js, Aurora Serverless V2*

- *Deployed an enterprise-grade, fully-serverless multi-agent AI platform for autonomous financial investment analysis orchestrating 5 agents via SQS and Lambda, using distributed cross-region Bedrock setup (Lambda us-east-1, LLMs us-west-2), delivering <200ms latency, 40% cost savings, and 10x cheaper vector storage, provisioned end-to-end with Terraform, exposed via Next.js + FastAPI UI.*
- *Implemented a full RAG Ingestion data pipeline using SageMaker embeddings + S3 Vector Search, reducing vector storage cost by ~90%. Delivered a full SaaS UI, authentication with Clerk, portfolio management and CDN delivery.*
- *Used Terraform for IaC, Langfuse and Cloudwatch observability, retries, and DLQ for production reliability, scalability, and reproducible AWS deployments.*

StructureGPT ***Multi-Model RAG System for UK Building Regulations using Low Rank Adaption and Quantization***

Tools/Technologies: Python, Hugging Face, ChromaDB, LLMs (GPT-4, LLaMA-3.3-70B), LangChain, groqcloud.

- *Retrieval-Augmented Generation (RAG) and fine-tuning LLama3.1-8b for domain adaptation using LoRA and 8-bit quantization and deployed to production on hugging face L4-GPU at $0.8/active hour. Using RAGAS & Giskard for Model Evaluation.*

AI Digital Twin Production Grade

- *Built and deployed full stack production-ready AI digital twin using serverless AWS architecture (Lambda, API Gateway, S3, CloudFront, Bedrock) with Terraform IaC for multi-region deployment and automated CI/CD via GitHub Actions with OpenID Connect. Achieved <200ms global response times through CloudFront CDN with S3based conversation memory persistence. Replicated deployment across Azure and GCP using Terraform's cloud-agnostic Infrastructure as Code.*

Education

- MSc. Artificial Intelligence & Data Science (**Distinction**) | Centre of Excellence for Data Science, Artificial Intelligence & Modelling (DAIM) University of Hull, UK | 2025
- AI & Machine Learning, Data Science Boot Camp |Nanodegree – ZTM | 2023
- Bachelor of Engineering | University of Port Harcourt, Nigeria | 2016 - 2021

Certification

- *AWS Certified AI Practitioner*
- *AWS Certified Generative AI Professional (Expected Dec 2025)*

Skills

♦ LLM Observability | LangFuse	♦ CI/CD | MLOps | AWS	♦ Python | FastAPI | C# .NET
♦ Docker & Kubernetes	♦ Azure Devops | Web API	♦ Leadership & Communication
♦ Generative & Agentic AI	♦Databricks & PySpark	♦ Git & GitHub Actions | Azure AI
♦ LangChain/LangGraph	♦ ECS/EKS/S3/SageMaker	♦ SQL | Azure | GCP
♦ PyTorch & TensorFlow	♦ Terraform | Delta Lake	♦Data Structures & Algorithms