

ODUGUWA DAMILOLA JOHN

◇ Lagos, Nigeria

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Software Engineer with 2+years of experience in AI/ML and backend systems.

EXPERIENCE

Machine Learning Engineer **Bluechip Technologies**

July 2025 - Present
Lagos, Nigeria

- Worked on the **NLNG** IVCO, a Scheduling and Operations application for the largest Natural gas provider in Nigeria, providing AI-powered schedule optimization features, production and shipping assets monitoring, and effective communication with buyers around the world.
- Designed and built a Finite State Machine-based Document Routing System, automating critical schedule document approval between global shareholders and buyers. Implemented dynamic Role-Based Access Control (RBAC) for view rendering and ensured compliance through structured emails and in-app notification systems. Reduced manual schedule iteration times by over 80% and significantly improved communication efficiency with international buyers.
- Assisted in designing and implementing the cargo delivery scheduling engine, built using constraint optimization (Google OR-tools) to generate optimized annual and monthly cargo delivery schedules. The engine accounts for business rules, tidal and berthing windows, gas supply shutdowns, and maintenance constraints, instantly producing new constraint-optimized schedules in response to changes.
- Implemented features for providing LLM-powered insights on schedule documents, through agentic deep research, and structured outputs.
- Implemented services for getting real-time gas production rates from Gas Supply Plant sensors, with Redis streaming and websockets to deliver instantaneous gas production rates to monitoring dashboards
- Implemented core backend services for handling schedule document upload and robust document validation services, allowing real-time edits and re-uploads, and provided helpful corrective insights.
- Significantly reduced cargo delivery schedule generation times by 60 %, enabling NLNG to adapt to buyer changes and operational constraints rapidly.

Machine Learning Engineer **Hobwise**

July 2025 - October 2025
Lagos, Nigeria

- Built the company's first production-grade ML features for hospitality businesses, delivering demand forecasts, daily customer predictions, and LLM-powered assistants for restaurant and hotel owners.
- Developed end-to-end **ML pipelines** using **Apache Airflow** and **Apache Spark** for data preprocessing, feature generation, model training, and batched inference.
- Designed and deployed **REST APIs (FastAPI)** for serving real-time and batched predictions powering analytics dashboards for business owners.
- Implemented CI/CD pipelines that provision **GCP Vertex AI, Cloud Run, and Pub/Sub** infrastructure using **Terraform**, enabling automated training jobs and scalable model serving across dev, staging, and production environments.
- Containerized MLflow, model training pipelines, and FastAPI services; integrated them with **Kubeflow** to orchestrate distributed workloads and streamline experiment tracking and deployment.
- Collaborated with product and data teams to integrate ML outputs into the admin dashboard, providing actionable insights for inventory planning, menu optimization, and staffing decisions.

Software Engineering Intern **Stanbic IBTC**

April 2025 - October 2025
Lagos, Nigeria

- Developed a Face Verification service using Azure Cognitive Services for BVN-based identity verification across internal platforms.
- Built an encryption API that mirrors the bank's production GCM-based encryption system, enabling the middleware team to securely encrypt and decrypt requests during local development and testing. By providing identical encryption outputs, this service accelerated middleware development and reduced integration issues by over 30%.
- Wrote and maintained documentation for nearly all backend microservices, improving internal knowledge sharing and cutting new team member onboarding time by 25
- Authored release notes and changelogs for senior engineers to ensure clarity and continuity during service deployments.

Machine Learning Engineer AIpplier

August 2024 - Jan 2025
Louisiana, USA

- Designed an LLM-based web automation agent using Playwright and Langgraph.
- Designed and implemented systems to visually annotate web elements using bounding boxes, facilitating navigation for an LLM.
- Developed scripts to parse interactive elements from the DOM and organize them into a DOM tree structure for use with an LLM.
- Implemented FastAPI endpoints for interacting with other backend microservices.
- Implemented continuous integration and development practices.

SKILLS

- **Languages:** Python, C#.
- **Frameworks:** FastAPI, ASP.NET, PyTorch.
- **Tools:** Docker, Git, LangGraph, OR-Tools, Cloud Services(Azure, AWS).

EDUCATION

Bsc. Computer Engineering, University of Lagos

2020 - 2026

- Second Runner-up at the ARB Academic Board Engineering Quiz Competition.

PROJECTS

SabiYarn. Pretraining a language model from scratch on major Nigerian Languages.

- Implemented loss masking strategies to optimize compute efficiency during pretraining.
- Wrote distributed training scripts for pretraining on multi-GPU infrastructure.
- Designed and tested alternate architectures including differential attention, cut-cross entropy, and multi-token prediction, to evaluate impact on pretraining performance.

Zeno A Natural Language-based book recommendation app for discovering books based on Natural Language text descriptions built using FastAPI. [Try it out here](#)

Whatsol A Solana-wallet backend for sending and receiving SOLs from WhatsApp contacts. [Try it out here](#)

AIpplier An LLM-based web automation agent for automating job applications on popular job boards

RESEARCH PUBLICATIONS

- [SabiYarn: Advancing Low Resource Languages with Multitask NLP](#) Pretraining. Published at [ACL 2025](#).