Samuel Owusu

MSc AI Student @ University of Aberdeen

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LinkedIn / Github / Website

EDUCATION

University of Aberdeen, UK

Sept 2025 – Sept 2026 (expected)

MSc. Artificial Intelligence

Ghana Communication Technology University

Sept 2015 - Oct 2019

BSc. Information Technology

WORK EXPERIENCE

Ministry of Finance (MoF), Ghana

Oct 2022 - Aug 2025

Software Engineer

- Designed, developed and implemented the Ministry of Finance Expenditure Tracking system and deployed to Azure to handle the large volume of national budget data expenditure and monitor various statuses, resulting in management taking more data-driven decisions and easier access to system reports.
- Developed the first ever Ghana's National SDG Budget Performance Web App Report [Project 2]
- Served as a data engineer in the preparation of data and building ML pipelines for the 2021, 2022, 2023, 2024 SDG budget reports using machine learning libraries.
- Coordinated with a team to prepare the entire Ghana's national budget with Oracle Hyperion Software to over 64 Ministries and 216 District Assemblies in Ghana.

AGPaytech Co, Remote - UK

July 2022 - Jan 2023

Software Engineer

- Architected a robust Neo Banking backend system that allows third part financial service providers to connect to
- Developed 2 Microservices (Auth and Customer) for the banking platform using Spring Boot and other JVM tools
- Integrated Mudulr Finance API to handle Bank Account creation increasing smoothness in user onboarding process.

Brox Technology, Ghana

Jan 2020 - May 2024

Software Engineer

- Built a business A.I WhatsApp bot that sells result checking vouchers that has scaled to over 700,000 customers.
- Built a convenient USSD service to sell university forms running on a NodeJS backend and Mobile Money API from MTN, Vodafone and AirtelTigo resulting in student in rural places without internet going to the university on time.
- Spearheaded the backend development of SMEs SaaS that increased company annual revenue by 20%. Built 8 microservices including gateway, auth, crm, payment, payroll, and pos all communicating together internally. Set up CI/CD pipeline for deployment to Azure App Services.
- Integrated monitoring tools to resolve the payment backend and connected it to a nice admin dashboard for sales team to settle payment issues with customers and refunds.

Technical Cofounder

- Built a crowdfunding backend system and deployed to AWS which allows users to set up donation campaigns online with payment subscription features increasing company portfolio of services and revenue by margin.
- Built Ghana's first ever No-code platform that allows businesses and individuals to do fundraising for social causes. [Post] [Platform]

Predictive Modelling & Algorithm Development to bring inclusiveness in banking and finance

- Trained customer churn prediction model on Telecommunications and Banking Industry dataset.
- Built a digital financial app to provide virtual assistance to young people. [AfricanChangingStories 2]

ACHIEVEMENT/ AWARDS

- Bank of Ghana CBDC Hackathon; 1st Runner Up winner and had the opportunity to dine with Vice President of Ghana December 2023
- UNICEF Startup Lab awardee with grant
- Awarded overall winning team (NSUO) for sanitation hackathon organized by the World Bank and Ministry of Sanitation, Ghana.
- Hacklab Foundation A.I Hackathon, 3 categories winner; financial technology, education and ecommerce.
- Trestle Academy AI hackathon winner 1st Position
- Ghana25under25 nominee Best in Technology
- Interview with Ghana National Television (GTV) and African Changing Stories
- Organized first ever AI hackathon in my university GCTU 2021
- Speaker at JavaScript Conference 2019

RESEARCH PROJECTS AND EXTRA ACTIVITIES

EvalLab: Developed Autonomous AI agents to analyze research papers and reproduce their experiment and then evaluate the results to rate reproducibility of the paper [Github ②]

GhanaNLP: Member of GhanaNLP Research Group; focused on Ghanaian Languages models to solve local problems.[GitHub ②]

MLOps: Built a speech dataset pipeline for African languages to build an ASR and TTS model for Africa's education and financial system. Learnt GPU and CUDA Programming working on this.

Data Analytics: Predict Ghana Football Premier League matches with historical data and current stats.

TECHNICAL SKILLS

Languages: Python, Java, Typescript, JavaScript

Libraries: PyTorch, NumPy, Pandas, Matplotlib, OpenAI API, Smolagents, Microsoft Agent Framework,

Puppeteer

Dev Experience: Microservices, GPU Programming, Node Expressjs, FastAPI, Springboot, Nextjs, SQL, Git,

Docker, Kubernetes, Terraform, Jupyter notebook.

Cloud: Advanced in Azure, Advanced in AWS, Heroku, Vercel, GCP

Documentation: LaTeX, Markdown, Postman