

Kwaku Osei Kwakye

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Summary

Senior Backend Developer specializing in scalable microservices, financial platforms, and system integrations using Node.js, Go, Rust, and PHP. Experienced in building high-availability, cloud-native solutions for banks, telecom operators, and e-commerce platforms. Skilled in secure architecture design, cloud infrastructure, and cross-functional team collaboration.

Education

University of Professional Studies, Accra, Ghana

BSc in Information Technology Management. (2019)

Technical Skills

- **Programming & AI/ML:** Python (FastAPI, NumPy, Pandas), Go, PHP, NodeJS, JavaScript, Typescript, Rust, C++
- **AI/ML & Data:** NLP, Translation Models, AI Orchestration, Machine Learning Fundamentals, Data Analysis, Data Engineering
- **Cloud & DevOps:** AWS (EC2, Fargate, Cognito, CloudWatch), GCP, Docker, Kubernetes, GitHub Actions, Jenkins, Terraform, Prometheus, Nginx
- **Backend & Frameworks:** Microservices, Node.js (ExpressJS), Go (Gin Framework), Python (FastAPI), Laravel, Webman, Next.js, Linux
- **Database & Storage:** PostgreSQL, MySQL, Redis, Oracle, MongoDB, SQLite, MSSQL
- **Methodologies & Tools:** Agile, Scrum, CI/CD, Microservices Architecture, Antigravity, Cursor, CodeRabbit, Notion

PROFESSIONAL EXPERIENCE

Software/AI Engineer, Kirirom Digital, Tokyo, Japan (Jul 2024 – Nov 2025)

- Designed and implemented high-performance REST APIs and **integrated AI orchestration systems** using Python (FastAPI) and Node.js.
- Engineered cloud-native architecture with AWS (EC2, Fargate, Cognito, CloudWatch), supporting scalable deployments and **AI workload distribution**.

- Built a secure, multilingual automated news forecast system using **NLP, translation models**, and cloud automation.
- Developed CI/CD pipelines with GitHub Actions, improving integration cycles by 40%.

Senior Backend Developer(CONTRACT-REMOTE) African Innovation Studios, New York, USA (February 2024 – December 2024)

- Led a team of backend developers in building a scalable, high-performance gift card platform using Go (Gin Framework), Redis, and PostgreSQL.
- Managed infrastructure with Digital Ocean(droplet), Jenkins, and NGINX.

Technologies: Go, PostgreSQL, Digital Ocean(droplet), Jenkins, Docker, NGINX

- Designed and optimized scalable database schemas and queries in PostgreSQL, ensuring high performance, data integrity, and security.
- Developed secure, RESTful APIs with **Laravel** using **JWT authentication**, supporting user management, campaign operations, and donation processing.
- Implemented **CI/CD pipelines** via **GitHub Actions**, automating testing, deployment, and maintaining code quality.

Technologies: Laravel, PostgreSQL, PHP, GitHub Actions, Docker

Full Stack Software Developer, PaySwitch (FinTech), Accra, Ghana (Mar 2023 – July 2024)

- Designed and implemented scalable microservices and background workers efficiently handling hundreds of daily payments and data management requests.
- Spearheaded the development of a Settlement Dashboard, delivering secure, transparent customer fund management and enhancing operational trust.
- Collaborated with MTN Ghana to build a USSD-based Device Lending Platform using Go, improving accessibility and scalability for nationwide smartphone borrowing services.

Technologies: NextJs, Postgresql, MongoDB, MariaDB, Python, PHP, Webman Framework, Laravel, Go, Redis

Full-Stack Developer, GITPlus, Accra, Ghana (June 2019 – Feb 2023)

- Led the design and development of scalable enterprise web applications using PHP (Laravel), JavaScript, React, and Bootstrap, delivering high-performance, maintainable solutions.
- Spearheaded the creation of a School Management System (SaaS) adopted by over 50 schools, streamlining academic administration, student management, and stakeholder communication.
- Designed and deployed a Church Management System (SaaS) utilized by 100+ churches, enhancing member management, event planning, and donation tracking operations.
- Built a national COVID-19 Vaccination Tracking System for the Ministry of Health, integrating Redis for fast data access and optimizing queries to support real-time high-traffic performance.

Technologies: Laravel, MySql, Redis, PHP, Javascript, Bootstrap, Inertia

Selected Projects

- **Payment Gateway Plugin (Open Source):** Built a WooCommerce plugin integrating PaySwitch's gateway using PHP and WordPress APIs. Enabled Real-time payment reconciliation for 20+ Ghanaian e-commerce platforms
- **Bank File Conversion Dashboard:** Built a MasterCard/VisaCard data transformation system for decrypting IPM, T112, T11... files into meaningful and readable transactions in CSV using Rust, PHP, and Python.