

EDWARD KWABENA TWUMASI

Senior Backend & Systems Engineer | AI-Assisted Developer Workflows | MLOps & Agentic Systems

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PROFESSIONAL SUMMARY

Senior Systems Engineer specializing in backend infrastructure, MLOps, and AI-assisted developer workflows. 6+ years building resilient, scalable systems—from payment platforms to AI-powered development tools. Creator of open-source packages (@teckedd-code2save/datafy, @teckedd-code2save/b2dp) enabling AI agents to query databases and orchestrate full-stack platform generation. Expert in event-driven architectures, containerized ML model serving, and agentic sandboxing. Author of technical articles on MLOps foundations and agent security.

TECHNICAL EXPERTISE

Languages & Frameworks: C# (.NET Core), Node.js/TypeScript, Python (FastAPI, BentoML), Go, Java (fundamentals)

AI & ML Systems: LLM integration, MLOps, model containerization, agentic workflows, agent sandboxing, MCP protocol

Distributed Systems: Apache Kafka (1M+ transactions/day), event-driven architectures, microservices, domain-driven design

Database & Tooling: PostgreSQL, MySQL, Elasticsearch, Redis, MongoDB—via MCP servers for AI-agent querying

Cloud & DevOps: AWS (EC2, ECR, Lambda), Azure, Docker, Kubernetes, GitHub Actions, blue-green deployments

CI/CD & Automation: Azure DevOps pipelines, GitHub Actions, artifact management, infrastructure-as-code, release management

PROFESSIONAL EXPERIENCE

Lead Backend Engineer | Hubtel, Accra | May 2024 – Present

Government & eCommerce Division | C#/.NET | Apache Kafka | System Leadership

- Reduced latency 40% through microservices optimization; engineered event-driven payment systems handling 1M+ daily transactions at 99.99% uptime with Kafka message ordering guarantees
- Managed Azure DevOps release pipelines and AWS infrastructure; eliminated deployment friction by 90%, enabling rapid iteration and reliability
- Mentored 8+ engineers: established architectural decision frameworks, Redis optimization practices, and production best practices that elevated team capability

Senior Software Engineer | Teckedd, Kumasi | January 2018 – March 2023

.NET | Node.js/TypeScript | Python | AWS | Full-Stack Delivery

- Shipped enterprise SaaS solutions for 50+ organizations: designed microservices with event-driven integrations, established infrastructure-as-code practices enabling reproducible cloud deployments

- Built GIS traffic platform processing tens of thousands of real-time data points; engineered Node.js/TypeScript backend with Google Directions API integration serving transportation research
- Pioneer AI-assisted workflows: created datafy MCP server (PostgreSQL, MySQL, Redis, Elasticsearch support) and b2dp CLI enabling AI agents to query databases and generate full-stack platforms

OPEN SOURCE & PUBLISHED WORK

[@teckedd-code2save/datafy](#)

Database MCP Server | Node.js | npm Package

- Enables LLM/AI agents to query 7 database types (PostgreSQL, MySQL, SQL Server, SQLite, MariaDB, Redis, Elasticsearch) through unified MCP interface
- Built token-efficient query handlers with code generation for C# and TypeScript; used by developers integrating AI into data-intensive workflows

[@teckedd-code2save/b2dp](#)

Business-to-Data-Platform CLI | AI Workflow Orchestration | npm Package

- One-command provisioning of full-stack platform generation; integrated into Anthropic's skill ecosystem for AI-assisted software development
- Bridges business specifications to production infrastructure; enables AI agents and developers to scaffold complete systems from requirements

MLOps Foundation & Agentic Systems Blog Series

Published on GitHub | 9+ Chapters Covering Production MLOps, Agent Sandboxing, Whisper Model Deployment

- Documented containerized ML model serving with BentoML; FP16 optimization strategies for Whisper ASR models
- Architected agent sandboxing framework: ephemeral Docker environments for secure LLM code execution with resource limits and managed state

EDUCATION

B.S. Computer Science | Kwame Nkrumah University of Science and Technology (November 2021)

CERTIFICATIONS & CONTINUOUS LEARNING

Cloud & Infrastructure: Kubernetes From Basics to Guru (Coursera, Jan 2026), Build a CI/CD Pipeline with Docker (Coursera, Jan 2026)

Security & Development: Software Secure Coding & Security Techniques (GXT, May 2023), Software Development Life Cycle (LinkedIn, Jan 2023)

Collaboration & Process: Working in Teams: A Practical Guide (edX, Aug 2025)