

AKWASI OWUSU-DUAH

DevOps & Cloud Engineering | Infrastructure Automation | Final-Year IT Student

Accra, Ghana · akwesiowusuduah@gmail.com · github.com/AKWASI101 · linkedin.com/in/akwasiowusuduah

PROFESSIONAL SUMMARY

Final-year BSc Information Technology student at Ghana Communication Technology University with practical, production-level experience in CI/CD pipeline automation, Linux server administration, cloud infrastructure on AWS EC2, and DevOps tooling. Founder of Sukuu—a free AI tutor web app for SHS students. Comfortable in Python and Bash for scripting and automation. Seeking the AmaliTech DevOps/Cloud track (NSS) to build cloud-native engineering skills in a professional team environment.

EDUCATION

BSc Information Technology | Ghana Communication Technology University (GCTU) *Sept 2022 – Nov 2026 · Accra, Ghana*

- Final-year student; Final Year Project: "DevOps Student Infrastructure Platform" (automated CI/CD, GitHub Actions, EC2, Caddy, Netdata, Telegram alerting)
- Relevant coursework: Networking, Systems Administration, Software Engineering, Database Management, Cloud Computing

EXPERIENCE

Founder & Infrastructure Lead | AOD Webservice *Sep 2025 – Feb 2026 · Accra, Ghana*

- Own all server infrastructure for a live web hosting business: AWS EC2 instance provisioning, Caddy reverse proxy configuration, PM2 process management, and SSL/TLS certificate management for multiple client domains
- Manage client deployments end-to-end — pushing updates, monitoring uptime, and handling on-call incident response
- Configured and hardened a production Linux environment: firewall rules, environment secret management, CORS policies, and rate limiting
- Maintain a personal home lab server (Ubuntu 24.04, Lenovo G500) for ongoing infrastructure experimentation, self-hosting practice, and DevOps tooling exploration
- Prepared technical specification documents and oversaw the build of the WaaS platform (available on GitHub; application currently offline)

Industrial Attachment | Npontu Technologies *2025 · Ghana*

- Gained exposure to professional software delivery workflows including sprint cycles, code reviews, and team collaboration on a Flutter-based Learning Management System (LMS)

PROJECTS

DevOps Student Infrastructure Platform (Final Year Project) *GitHub Actions · AWS EC2 · Caddy · Netdata · Telegram · Bash*

- Designed and implemented a fully automated CI/CD pipeline covering the complete DevOps lifecycle: source control trigger → build → automated deployment to production on AWS EC2
- Configured Caddy as a reverse proxy for HTTPS termination and domain routing; PM2 for process supervision and auto-restart on failure
- Integrated Netdata for real-time server metrics (CPU, memory, disk, network) and Telegram bot alerting for deployment events and system anomalies
- Authored all system architecture documentation.

Sukuu – AI-Powered WASSCE Study PWA · sukuu.duckdns.org *Next.js 14 · TypeScript · Tailwind CSS · Anthropic Claude API · next-pwa*

- Owned the full deployment pipeline: GitHub Actions CI/CD with SSH deploy action for automated, zero-downtime production releases to EC2
- Made infrastructure and vendor decisions: selected Claude Haiku (Anthropic API) for cost-per-token efficiency at student-scale; architected a stateless sessionStorage approach to eliminate database costs at MVP stage
- Managed domain, SSL, reverse proxy, and server configuration for the live beta environment
- Prepared the product specification, defined the technical architecture, and oversaw AI-assisted development of the application codebase
- Currently in beta with real users; growth strategy via WhatsApp seeding and school ambassador model

AOD Webservice WaaS Platform · [Available on GitHub \(application currently offline\)](#) · AWS EC2 · Caddy · PM2 · Ubuntu · GitHub

- Prepared the full software specification document and system architecture for a multi-tenant event-centre website platform; oversaw AI-assisted build of the application
- Owned the production infrastructure: EC2 provisioning, Caddy reverse proxy, PM2 process management, environment configuration, and security hardening
- Passed a full security audit covering rate limiting, CORS policy, secret management, and access controls

Helena AI Chatbot · helenai.duckdns.org · Flask · Google Gemini API · Python · DuckDNS · Nginx

- Self-hosted on personal home lab server: configured Nginx reverse proxy, DuckDNS dynamic DNS for public exposure, and process supervision for uptime
- Demonstrates practical self-hosting and server administration skills beyond managed cloud platforms

TECHNICAL SKILLS

Cloud & Infra	AWS EC2, Ubuntu Server 24.04, Arch Linux (daily driver), home lab server administration
CI/CD & Automation	GitHub Actions, SSH deploy automation, PM2 process management, Bash scripting
Web Servers	Caddy (primary), Nginx, SSL/TLS, reverse proxy config, domain & DNS management (DuckDNS)
Monitoring	Netdata (metrics), Telegram bot alerting, uptime monitoring
Scripting	Python (comfortable), Bash (comfortable) — used for automation and tooling, not application development
Version Control	Git, GitHub
Certifications	KodeKloud – in progress
Languages	English, Twi and Ga

CERTIFICATIONS & CONTINUOUS LEARNING

- AWS Cloud Practitioner – currently studying (KodeKloud + AWS docs)
- KodeKloud DevOps Learning Path – completed Linux, Networking, Bash Scripting, Python and DevOps Tooling modules
- Active personal GitHub profile demonstrating all projects above

REFEREES

Available on request.