NYAVOR CYRIL ETORNAM

Cybersecurity · Cloud · Networking · Automation · DevOps

cyrilnyavor@gmail.com | (+233) 55 466 1126 | linkedin.com/in/cyril-nyavor/ | github.com/CyrilEtornam | cyrilnyavor.vercel.app

PROFESSIONAL SUMMARY

Final year computer engineering student specializing with a focus on network security and infrastructure resilience. Sharpened through internship experiences at the University of Ghana IT Directorate hardening campus network infrastructure securing Cisco switches, implementing VLANs, and troubleshooting real-world incidents. Participated in picoCTF 2026, captured 51 flags, and ranked #147/1131 in Africa across binary exploitation, web security, cryptography, and forensics. Comfortable in the terminal, curious about offensive security, and currently building toward an AWS Cloud Practitioner certification.

CORE SKILLS & TECHNOLOGIES

Security & Networking	SSH, VLAN Segmentation, Access Control Lists (ACLs), Port Security, TCP/IP, DHCP
Tools	Kali Linux, John the Ripper, Metasploit, Burp Suite, CyberChef, Wireshark, Linux, Cisco Packet Tracer
Languages	Python, JavaScript, Java, C++, TypeScript
Full-Stack Development	React.js, Next.js, TypeScript, Node.js, Django, Flask, Spring Boot, TailwindCSS, FastAPI, REST APIs, RabbitMQ
Databases	PostgreSQL, MongoDB, Firebase, Supabase, MySQL, Redis
Cloud & DevOps	AWS (Lambda, Bedrock, EC2, S3, IAM, Amplify), Linux, Git / GitHub, Docker, Render, Vercel
Monitoring & Hardware	SNMP Polling, Network Performance Metrics, Environmental Sensing, ESP32 / Arduino, Switches, Routers, Firewalls, Access Points, Fiber Optic ODF Termination, Structured Cabling

RELEVANT EXPERIENCE

Network Engineering Intern – University of Ghana IT Directorate **March – May 2025, Oct – Dec 2025**

- **Infrastructure Hardening:** Configured and secured Cisco switches using SSH and Port Security to prevent unauthorized management access and MAC spoofing.
- **Network Segmentation:** Implemented VLANs to optimize traffic flow and establish internal security boundaries across department networks.
- **Incident Monitoring:** Assisted in troubleshooting real-world network incidents, identifying how hardware faults and environmental factors create security and availability risks.
- **Physical Layer Security:** Managed fiber optic ODFs and structured cabling to ensure the physical integrity of the enterprise backbone.
- Gained practical exposure to network security fundamentals such as segmentation, DMZ concepts, DHCP behavior, and access management.

COMPETITIONS

Participant – picoCTF 2026 **Carnegie Mellon University | 9th - 19th March 2026**

Competed in one of the world's largest international cybersecurity CTF competitions, tackling challenges across binary exploitation, web security, cryptography, forensics, and reverse engineering.

- Captured 51 flags
- Scored 8,900 points
- Ranked **#147/1131** on the entire Africa Leaderboard

AWS GenAI Hackathon 2026 **Amalitech | 23rd - 27th June 2026**

Built NKWA, an AI-powered emergency dispatch system integrating generative AI, real-time telemetry, and local language support for Ghana's emergency response infrastructure, as part of a 10-person team during a 72-hour build sprint

- Delivered a production-ready pipeline in 72 hours
- Processed emergency calls end to end in under 30 seconds
- Integrated multiple AWS services in one architecture (EC2, S3, Bedrock, Transcribe, Polly, Location, Amplify, etc...)
- Placed 5th of 10 teams

KEY PROJECTS

NKWA - AI Copilot for Ghanaian Citizens in Emergencies

FastAPI · EC2 · S3 · React · Khaya AI · Amazon Bedrock · Amazon Polly · Amazon Transcribe · AWS Location · DynamoDB

- Built the FastAPI backend and full call pipeline, taking audio through transcription, translation, AI triage, GPS-to-landmark conversion, and first-aid audio generation to a dispatcher brief in under 30 seconds
- Engineered a language-routing layer that sends Ghanaian languages (Twi, Ewe, Dagbani) to Khaya AI and English to Amazon Transcribe and Polly, with DynamoDB
- Designed a single Amazon Bedrock (Claude Opus 4.8) inference call returning severity classification, prank detection, incident type, and a localized first-aid script in one structured response

Automated Network Monitoring & Anomaly Detection System | Ongoing

- Developing an IoT-driven predictive maintenance system that utilizes hardware sensors and machine learning to correlate environmental stressors with network metrics, enabling the proactive forecasting and mitigation of service outages through validated failure simulations.

Network Defense Simulations (Cisco Packet Tracer)

- Architected and secured a simulated enterprise network; implemented VLANs for traffic isolation and Port Security to mitigate unauthorized hardware access.

GhanaERS - Distributed Emergency Response Platform

Spring Boot 3.5 · Java 21 · React 18 · PostgreSQL · Redis · RabbitMQ · WebSocket · Cloud Deployment

- Designed and deployed a four-service microservices architecture for real-time emergency response coordination, integrating event-driven messaging (RabbitMQ), distributed session management (Redis), and live WebSocket tracking with a Google Maps dark-mode frontend.
- Implemented JWT-based API authentication, secure service-to-service communication, and distributed data consistency patterns; deployed to cloud infrastructure across Render, Vercel.

Spaces - Campus Facility Booking System

Node.js · React · PostgreSQL · MVC Architecture · RESTful APIs

- Built a full-stack facility reservation platform with role-based access control for administrative and student users, applying MVC architecture, RESTful API design, and a minimalist frontend aesthetic.

EDUCATION

Bachelor of Science in Computer Engineering

January 2023 – January 2027 (EXPECTED)

University of Ghana

Relevant coursework:

- **Computer Networks** • **Network Security** • **Operating Systems** • **Distributed Systems** • Data Communication • Database Management • Software Engineering

CERTIFICATIONS

- Networking Essentials: Cisco Networking Academy (MAKATOB Academy) [Jan 2026]
- AWS re/Start Graduate [Aug 2026]
- AWS Cloud Practitioner (In progress)