# Kwaku Sarfo Akyena

# Master's in Cybersecurity | Candidate at Michigan Technological University

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# **SUMMARY OF QUALIFICATIONS**

- A cybersecurity analyst with expertise in vulnerability management with the use of Splunk and alert triaging and erudite in MITRE ATTACK framework,nmap and other tools for the protection of Data.
- A detail-oriented Computer Engineering graduate with expertise in designing website applications, programming and creating databases using HTML, Ruby, C++, C and Java, MySQL respectively.
- A mechanically oriented Fiber Optic Technician with high problem solving skills and a strong research
  experience in the use of (OTDR) Optical Time Domain Reflectometer in detecting faults in fiber
  transmission.
- 7+ years of experience using Microsoft Office Suite (Excel, Word and Powerpoint) in organizing data, preparing maintenance reports and preparing quarterly KPI presentations to stakeholders.
- An adaptable field systems engineer with experience in performing system diagnostics, tuning software and hardware configuration, and performing field verification.

### **EDUCATION**

# **Graduate Record Examination**

Jun 2023 -Present

Passed GRE with 317 score and acquired 157 each on verbal and quantitative reasoning.

#### University of Ghana, Accra

Sep 2017 - Sep 2021

- Bachelor of Science Degree in Computer Engineering
- Relevant courses: Advanced Computer Architecture, Artificial Intelligence, Computer networks, Object
   Oriented Programming, Operating Systems

# (IPMC )Intercom Programming & Manufacturing Co, Accra

Jul 2017 - Sep 2017

• Software Engineering

### RELEVANT ACADEMIC PROJECTS

Development of a Web and mobile app to reduce overcrowding at health insurance sectors

Jul 2018
University of Ghana, Accra

• A Web app and mobile app was developed using java,javascript,css,Html,MySQL and php in order to collect personal data of National Health Insurance holders quickly and efficiently.

# Fault detection in long haul Fiber transmission University of Ghana, Accra

Jul 2021

• Authored a research paper titled "Fault detection using Integrated Optical-Time Domain Reflectometer in long haul Fiber transmission" to develop a system ensuring quick detection of faults in fiber links, minimal

service disruption in fiber links and to have an idea of abnormalities in the optical cable over a long distance.

- The system consists of the Optical-Time Domain Reflectometer connected to the fiber link cables via launch cables. Regarding the scope of the project, the standard measurements were from verified standard fiber optic association. To start the process, necessary parameters such as frequency, pulse width and time aid in the detection of faults on a new link.
- It was observed that without the use of Optical-Time Domain Reflectometers, testing the integrity of the
  cable can be difficult and very slow but with the right procedures in my research the time may be boosted
  up by 200%.

### WORK EXPERIENCES

# Cybersecurity Analyst Tier 1 | Joberg Ghana Ltd | Ghana

May 2022 - Present

- Improved Joberg company's data protection by 50% by conducting employee training sessions on cybersecurity awareness and best practices to reduce human-related security risks.
- Implemented security enhancements that reduced the number of security incidents of the company's auction site by 20% over 30 days.
- Led the company through successful GDPR compliance audits with zero major findings.
- Improved communication and unity of the company by introducing identity management system with the help of Active Directory,
- Discovered vulnerabilities were then cross referenced with the National Vulnerability database for a CVSS rating and written report done thereafter.

### Cybersecurity Analyst | Virtually Testing Foundation | USA

Dec 2022 - Apr 2023

- Helped improve the efficiency of vulnerability scans by 25% in the company.
- Performed alert triaging with the help of MITRE ATTACK framework and Navigator.
- Effectively utilizing MITRE ATT&CK framework to assess and evaluate a Company's security posture.
- Experience creating and managing threat intelligence feeds from open-source, commercial, and internal sources.
- Weekly presentations of weekly tasks by Virtually testing foundation on threat hunting.
- Inspected and scanned for vulnerabilities in clients' systems with the use of Splunk, a SIEM tool.
- Recognized vulnerabilities were then cross referenced with the National Vulnerability database for a CVSS rating and I wrote a report about it.
- Experience developing and delivering employee training and awareness programs on security best practices and the current threat scenario.
- Collaborated with cross-functional teams to Implement and Develop security policies, procedures and guidelines.

### Field Monitoring Engineer | National Communications Authority | Ghana

Sep 2021 - Nov 2022

- Providing support for all things IT ranging from network layout and customization to server and end-user system administration.
- Performing regular maintenance support, installation and systems administration reducing system errors by 40%

- Collaborating with other technicians in using the tool Nemo Invex and Nemo WindCatcher software in capturing voice and data samples across Ghana in all regions and processing voice test samples to analyze the Quality of Service of Network Telcos in Ghana respectively.
- Quarterly check ups of Base Transceiver Stations (BTS) mounted by Network Telcos in Ghana.

# Founder | BYTEWAVE TECHNOLOGIES|Ghana

Jan 2020 - Present

- A Software solution based firm with the aim of digitalization of western educational technology to rural Ghana.
- Organizing and overseeing of learn-link an Ed-tech solution software being rolled out in over 50 high schools in the country. This software integrates student, teachers, parents in aim to help optimize student performance whilst simplifying administrative duties and monitoring by School sta eholders.
- Coordinating the planning, developing and implementing programs, policies, and procedures for assigned
  areas to ensure the most effective utilization of resources to support the vision and mission of the Company.

### Fiber Technician | Stepworth Enterprise | Ghana

Feb 2021 - Sep 2021

- Performed optical test and characterization for fiber optic device modules including visual inspection, geometry, insertion loss and return loss testing
- Inspected and tested lines or cables, recording and analyzing test results, to assess transmission characteristics and locate faults or malfunctions.
- Assembled fiber optical components, specifically the "optical power-monitoring module", utilizing
  alignment mechanisms, baking procedures, and ultra violet epoxy curing techniques improving the
  accuracy and rigidity of systems by 60 percent.

# **VOLUNTEERING EXPERIENCE**

**Co-Founder** | Ladies Aid Ghana Prestige Foundation|Ghana

Jan 2021 - Present

- Maintaining the daily operations of the front desk including all administrative work, telephone correspondence, database entry and public relations.
- Organizing and participating in community outreach events increasing the awareness of the importance of STEM education for females.
- Coordinating the planning, developing and implementing programs, policies, and procedures for assigned
  areas to ensure the most effective utilization of resources to support the vision and mission of the
  organization.

International Relation Contact Person | AFS Intercultural Programs | Ghana -USA | Jan 2022 - Present

- Being the first point of contact for American Field Service volunteers from around the world.
- Organizing orientations for study abroad and hosting programs.
- Introduce foreign volunteers to my country Ghana's Heritage and culture.
- Support of foreign volunteers, host family and project to define their expectations for AFS experience.