

NII AFLORH-TETTEH

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SUMMARY

A dynamic and results-driven Electrical Engineer with hands on experience in high voltage power distribution systems, rectification systems, electrical installations, solar photovoltaic systems and industrial maintenance. Skilled in conducting preventive maintenance, energy audits, safety audits and enforcing strict lockout / tagout procedures. Proficient in AutoCAD for electrical design. Quick learner with strong problem solving skills and committed to delivering optimal system reliability and driving efficiency in all engineering projects.

WORK EXPERIENCE

VOLTA ALUMINIUM COMPANY LIMITED
Electrical Engineer: National Service Personnel
2026

Tema, Ghana
December 2025 – September

- Supported operations at the Rectifier Station to safely distribute incoming 13.8kV power across the plant. Assisted in managing auxiliary power distribution to ensure continuous supply to all plant sections. Monitored the AC-to-DC conversion process across 4 voltage regulators supplying 2 main cell lines. Worked with the maintenance team to execute preventive maintenance on 85MVA voltage regulators and Westinghouse rectifier transformers (12410/16540kVA). Performed megger testing to inspect identify dielectric breakdown on power transformers and substation equipment to prevent unplanned downtime. Enforced strict safety protocols by executing Lockout/Tagout (LOTO) procedures before entering and servicing transformers. Participated in troubleshooting and fault rectification within the plant power system to minimize operational downtime ensuring high system reliability.
- Collaborate with Carbon Operations Engineering Maintenance to ensure maximum uptime of heavy industrial production machinery. Support the maintenance and troubleshooting of critical plant assets, including conveyor belts, crushers, anode mold formers and induction furnaces.
- Conducted Lockout / Tagout field audits on Motor Control Centers (MCCs) and maintenance personnel during active maintenance across the plant to ensure strict adherence to local isolation, lockout/tagout (LOTO) procedures and key control protocols.
- Participated in plant wide safety audits to very compliance with company standards across all departments.

AB SOLAR AFRICA
Electrical Engineer: Intern

Dzorwulu, Ghana
September 2024 – October 2024

- Assisted the engineering team in sizing and installing a 24.4 kW residential solar system with battery storage system in Airport Hills.
- Contributed to ongoing solar project installations and preparations for commissioning at Animwaa Heights, Adjiringanor.
- Supported senior engineers with infrastructure integration at existing 565kWp Cargill commercial solar farm.
- Collaborated with team members to ensure project tasks were completed safely and on schedule.

ASHAIMAN MUNICIPAL ASSEMBLY
Electrical Engineer: Intern

Ashaiman, Ghana
September 2023 – December 2023

- Executed troubleshooting, repair and installation of electrical components, including sockets, switches and ceiling fans.
- Assisted senior electricians with domestic wiring, circuit mapping and basic electrical fault diagnostics across municipal facilities.
- Collaborated on a large-scale municipal project to replace and upgrade streetlights across multiple communities. Installed energy-efficient lighting fixtures at heights, strictly adhering to site safety protocols.
- Maintained inventory of electrical tools and components to ensure efficient daily field operations.

EDUCATION

Kwame Nkrumah University of Science and Technology

Kumasi, Ghana

Bachelor of Science in Electrical / Electronic Engineering

January 2022 – March 2026

TECHNICAL SKILLS

Software and CAD: (Microsoft Office (PowerPoint, Word, Excel), CAD Design (AutoCAD), Python, Basic Frontend development, Prompt Engineering.

Electrical and Power Systems: Electrical wiring and Schematics, Technical Documentation, Safety Audits.

CERTIFICATES

Occupational Health and Safety Training by Department of Factories Inspectorate (October 2024)