

# Bright Kwame Arku

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## EDUCATION

**Kwame Nkrumah University of Science and Technology**

Kumasi, Ashanti Region

Program: BSc. Electrical and Electronic Engineering

Aug 2018-Nov 2022

**Akwamuman Senior High School**

Akosombo, Eastern Region

Program: General Science

Oct 2014-April 2017

## PROFESSIONAL PROFILE

Experienced electrical engineer with 3+ years of experience in designing, inspecting, and calibrating electrical equipment. Improved productivity by 50% through innovative checklists and reduced equipment failure rate by 80% in 12 months. Excels in streamlining processes and ensuring compliance with international standards.

## CERTIFICATES/ ACHIEVEMENTS / AWARDS

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| • AI Career Essentials                                    | May 2024 |
| • Power Distribution Network design and System Planning   | May 2024 |
| • Green Digital Skills Certificate, Inco Academy-LinkedIn | Apr 2024 |
| • Particle Swarm Optimization Code, MATLAB                | Nov 2022 |
| • Optimization of a Hybrid system, Udemy                  | Oct 2022 |
| • Distribution Load flow Analysis, Udemy                  | Oct 2022 |
| • Genetic Algorithm Code, MATLAB                          | Oct 2022 |
| • Web Development Certificate, Alx-Udacity                | May 2022 |

## PROJECTS

**PERSONAL WEBSITE: Created a personal website using GitHub** Jan 2024

- The website contains information on my project research works. (<https://torredobello.github.io/>)

**POWER DISTRIBUTION: Optimal Location and Sizing of DG Using Genetic Algorithm** Nov 2022

- Sized and found an optimal location for a distributed generator with IEEE bus 14 as a case study using Genetic algorithm.
- The system could analyze and determine the optimum location for a DG taking system losses into account.
- The system performs load flow analysis using the Newton-Raphson method.

**FINAL YEAR PROJECT: Optimization of a Hybrid Solar Wind System Using Genetic Algorithm** Nov 2022

- Optimized a hybrid system with the genetic algorithm using MATLAB.
- The system performs loss of power supply probability to increase power reliability.
- The system is modeled based on load estimation and forecasting to accommodate future load increases.

## WORK EXPERIENCE

**Assistant Electrical Engineer (Contract), Electricity Company of Ghana, Accra** Nov 2023-Present

- Designed transformer drawings using AutoCAD for our specification which increased productivity in the field of review.
- Conducted factory audits and equipment inspections by visiting manufacturing facilities to ensure adherence to established standards.

- Innovated a Type Test review checklist, cutting review time by 50% and eliminating review errors.
- Developed Type Test requirement checklists for equipment, referencing IEC, ISO, IEEE, and other international standards, to ensure that the procured equipment meets established standards.
- Conducted research and introduced sampling techniques that were subsequently adopted as the criteria during FATs.

**Graduate Electrical Engineering Trainee, Electricity Company of Ghana, Accra** Nov 2022-Oct 2023

- Researched distribution-related field problems and provided solutions to improve system conditions.
- Engineered a technical submittal review checklist, streamlining the review process by 70% and achieving a 100% reduction in review errors.
- Increased the rate of defect detection during factory acceptance tests while ensuring compliance with contractual agreements and specifications
- Reduced rate of failure of equipment by 80% through preventive maintenance with the help of my colleagues
- Clarified standards for equipment procurement by enhancing detail and conciseness, reducing ambiguity.
- Analyzed and calibrated equipment, established conditions, and prepared reports.

**Electrical Engineer Intern, Japan Motors Company and Trading Limited, Accra** Oct 2021-Jan 2022

- Tested wiring and other system parts for electrical flow and function.
- Tested, troubleshot, and calibrated equipment in the shop and field, hence increasing efficiency and customer satisfaction by 80%.
- Analyzed electrical deficiencies to resolve them.
- Estimated budgets and time scopes for each project, reducing the time taken to complete projects by 30%.
- Inspected equipment for defects and safety hazards and completed necessary repairs.

**Sales, Marketing, and Technical Personnel, Telefonika Company Limited, Accra** Oct 2017-Sep 2018

- Organized racks and shelves to maintain store visual appeal, engage customers, and promote specific merchandise.
- Increased the purchase of gadgets by 70% through marketing.
- Answered customer questions about sizing, accessories, and merchandise care, and solved customer challenges by offering relevant products and services
- Performed technical repairs and updates for electronic gadgets and engaged customers to build rapport and loyalty.

## **VOLUNTEER & LEADERSHIP EXPERIENCE**

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**Youth Financial Secretary (Dominion Youth Ministry)** May 2023- Current

- Achieved financial stability by implementing policies like moderate weekly dues, a youth account etc.
- Introduced a comprehension structure and budget on expenses.
- Aided fellow executives to establish an effective command structure and communication channel.

**Voluntary Ocean Literacy (ECOP Africa Node)** May 2023- Current

- Raised awareness of the ocean's influence on us and our influence on the ocean.
- Raised awareness about the conservation, restoration, and sustainable utilization of our oceans and their resources.
- Foster an enhanced public knowledge base worldwide on the global ocean and its vital importance.

**Voluntary Green Energy Awareness, Accra** Nov 2023- Dec 2023

- Raised awareness about green energy and environmental friendliness among Junior High and Senior High students.
- Instructed students on the greenhouse effect and the importance of environmental preservation.

## **Voluntary Peer Pressure Counselling, KNUST**

May 2019- June 2019

- Elevated student attendance, awareness, and commitment to discipline, sexual safety, and academic excellence.
- Advised students on the act of discipline, sexual safety, and academic excellence.

## **National Science & Math's Quiz Team Lead, Akwamuman SHS**

Oct 2015- July 2017

- Organized mock quizzes among participants which increased cooperation between participants.
- Created flash cards to aid with memorization of formulas and facts which increased study efficiency.
- Served as the mediator between students and instructors allowing increase in commitment between instructors and students.

## **TECHNICAL SKILLS**

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- Software: AutoCAD, MATLAB, Simulink, Microsoft Office Suite, CYME.
- Programming Languages: Python, C, Java.
- Web Development: HTML, CSS, JavaScript.

## **HOBBIES AND INTEREST**

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- Volunteering, Research, Mentoring, reading science Journals and articles, AI, tech, and computer trends, solving math and physics-related problems, fantasizing and researching about the universe.

## **REFERENCES**

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- Ing. Selorm Amoaku.  
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