

ASIWOME BOATENG

Postal Address: C/O Materials Engineering Department, KNUST, Ghana
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PROFESSIONAL SUMMARY

Dynamic DevOps Engineer and Materials Engineering PhD candidate with over three years of experience in cloud infrastructure, materials research, and civil engineering for road and transport systems. Proficient in automating AWS deployments using Terraform, Docker, and GitHub Actions, optimizing pipeline efficiency. Skilled in corrosion inhibition research with peer-reviewed publications and in conducting geotechnical investigations and quality assurance for highway construction projects at the Ghana Highway Authority. Certified Data Analyst Associate (DataCamp), leveraging SQL for data-driven insights. Founded PLASTICO GHANA LTD to produce sustainable construction materials, demonstrating leadership. Committed to delivering innovative solutions across technology, civil, and materials engineering.

EDUCATION

PhD. Materials Engineering Kwame Nkrumah University of Science and Technology, Ghana.	2025 to Date
Data Analyst Associate DataCamp.	2024 – April, 2025
MPhil. Materials Engineering Kwame Nkrumah University of Science and Technology, Ghana. <i>Thesis:</i> Corrosion Inhibition Efficiency of Expired Antimalarial Drugs on 304L and 316L Stainless Steels in Acidic and Basic Media Using Electrochemical Method	2021 – 2024
Cloud Computing Amazon Web Services	2024 to Date
BSc. Materials Engineering Kwame Nkrumah University of Science and Technology, Ghana <i>Thesis:</i> Investigation of the Effects of Heat Treatments on the Microstructure, Mechanical Properties and Corrosion Behaviour of 304L Stainless Steel Weld Metal.	2016 – 2020

WORK EXPERIENCE

DevOps Engineer, Terateck Solutions, Kumasi <ul style="list-style-type: none">▪ Designing and implementation of comprehensive Terraform projects, structuring environments and modules for AWS infrastructure.▪ Automating the deployment of CI/CD Backend services to AWS using GitHub Actions and AWS CodeDeploy▪ Utilizing Docker to containerize PHP, WordPress, and Django applications, enhancing deployment efficiency and consistency.▪ Deploying and managing a Django API on AWS EC2 D, utilizing Nginx, Docker, and Let's Encrypt for secure, scalable application management▪ Provisioning and managing of AWS infrastructure using AWS Cloudformation	June 2024 – Date
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Materials Lab Technician, Ghana Highway Authority, Ho**Aug 2021 – Feb 2022**

- Responsible for general management of the laboratory
- Conducted quality assurance tests on aggregates and concrete, ensuring compliance for various projects, both on site and in the lab.
- Led geotechnical investigations, analysing soil data to support construction and planning
- Construction site supervision

National Service, Ghana Highway Authority, Ho**Sep 2020 – Aug 2021**

- Perform gravel exploration and soil sampling for testing
- Quality control and assurance testing of soil samples and aggregates

PUBLICATIONS

1. **Boateng, A.**, Arthur, E.K., Gikunoo, E. and Afriyie, E., 2025. Corrosion Inhibition Efficiency of Expired Antimalarial Drugs on Stainless Steels in Acidic and Basic Media. *Results in Surfaces and Interfaces*, p.100414. <https://doi.org/10.1016/j.rsurfi.2025.100414>

2. Afriyie, E., Arthur, E.K., Gikunoo, E. and **Boateng, A.**, 2025. Bentonite-Assisted Carbonization of Waste Polyethylene Terephthalate Bottles for the Removal of Heavy Metals from Polluted Water. *Results in Surfaces and Interfaces*, p.100406. <https://doi.org/10.1016/j.rsurfi.2024.100406>

PROFESSIONAL ACTIVITIES

Peer Reviewer - Journal of Environmental Chemical Engineering, *Elsevier Journals* **October 2024 to Date**

- Conducting thorough reviews of submitted articles, providing feedback on content quality, research methodology, and overall relevance to ensure adherence to high publication standards.

SKILLS

DevOps Tools	Terraform, AWS, Docker, Github workflows, Linux, Bash, Ansible,
Lab Techniques	Materials Engineering lab tests and results interpretation, Civil Materials lab tests and results interpretation
Soft Skills	People Management, Leadership, Collaboration
Strategic and Business Planning	Business Model Development, Business Planning, Project Management
Academic and Editorial	Article reviewing for Elsevier, Research evaluation
Data Analysis	Data Management, SQL

LICENSES AND CERTIFICATIONS

1. Data Analyst Associate – DataCamp –

April, 2025

<https://www.datacamp.com/certificate/DAA0010109091137>

2. Digital Ad Certificate - Digital Marketing - Aleph Group, Inc 547311430875 –

August, 2023

https://learn.digitaladexpert.com/certificate/?course_id=430875&user_id=547311

3. Sustainable Business Start-ups (SBS) Entrepreneurship Training – Mastercard Foundation
Africa Higher Education Health Collaborative

September, 2023

LEADERSHIP

Founder and C.E.O of PLASTICO GHANA LTD

September 2023 to Date

Production of Sand-Plastic Bricks for Sustainable Construction Works

Pioneered production of sand-plastic bricks, advancing sustainable construction.

INTERESTS

- Technology Innovation
- Academic Research and Peer Review

REFEREES

1. Jephther Kumuyi Danso, Chief Executive Officer, Terateck Solutions

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2. Dr. Emmanuel Kwesi Arthur, Senior Lecturer, Department of Materials Engineering, KNUST

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3. Ing. Shaibu Mahama Senseu, Regional Materials Engineer, Western North Region

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