

Isaac Edem Adoboe

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Education

Master of Data Science (Expected Aug 2025)

Memorial University of Newfoundland (MUN) — St. John's, NL

Interests: Deep Learning, Computer Vision, and Quantum Computing

BS, Electrical & Electronics Engineering (Graduated Sep 2021)

Kwame Nkrumah University of Science and Technology (KNUST) — Kumasi, Ghana

Thesis: "Machine Learning-Based Fault Detection in Induction Motors"

Research and Projects

"Heart Disease Prediction Using Machine Learning" — *Memorial University of Newfoundland*
(Jan 2021 – Aug 2021)

- Achieved 96% recall and 89.1% accuracy in heart disease prediction using SVM with hyperparameter optimization, emphasizing high sensitivity for identifying at-risk patients.
- Designed and optimized neural networks with L2 regularization, dropout, and LeakyReLU, achieving 87.5% accuracy and 90.1% recall, highlighting scalability for larger datasets.
- Conducted feature importance analysis, identifying key predictors like fluoroscopy vessel count and serum cholesterol, enhancing interpretability and reliability.
- Proposed a cost-efficient, non-invasive diagnostic method to advance early disease detection and preventive healthcare.

"Machine Learning-Based Fault Detection System in Induction Motors" — *KNUST, Ghana*
Project Lead (Jan 2021 – Aug 2021)

- Developed a novel fault detection algorithm, achieving 61.38% efficiency after 20 epochs using TensorFlow and MATLAB.
- Processed and analyzed 2D images for model training, improving classification accuracy through advanced signal processing techniques.
- Presented findings to faculty and peers, strengthening presentation and research dissemination skills.

Technical Skills

- **Programming Languages:** Python, R, SQL, MATLAB, JavaScript
- **Machine Learning Frameworks:** Scikit-Learn, TensorFlow, Keras
- **Data Visualization:** Tableau, Power BI, Matplotlib, Seaborn
- **Tools:** Jupyter Notebooks, Azure, GitHub
- **Soft Skills:** Research Documentation, Academic Writing, Collaboration, Public Speaking

Professional Experience

Newmont Mining Corporation — Akyem Mine, Ghana

Technology Portfolio Support Analyst (Nov 2022 – Jul 2024)

- Coordinated cross-functional teams to support over 4 major IT projects, ensuring timely delivery of solutions that enhanced mining operations.
- Automated reporting workflows using Python and Power BI, cutting manual reporting time by 40%.

- Led system integration projects for mining operations, enabling seamless data flow and boosting operational efficiency.

End User Support Analyst (*Nov 2021 – Aug 2022*)

- Delivered technical support to over 900 users, achieving a 95% first-contact resolution rate.
- Conducted software training sessions for drilling and blasting software, improving user productivity by 25%.

Envision Digital Signage Network — Kumasi, Ghana

Front-End Developer (*Jan 2021 – Dec 2021*)

- Led web app transformation, doubling sales and increasing user satisfaction by 30%.
- Developed responsive components with React, reducing page load times by 40%.
- Provided technical support, achieving 95% first-contact resolution and minimizing downtime.

Volta River Authority — Akosombo, Ghana

Electrical Engineering Assistant (*May 2020 – Sep 2020*)

- Assisted in the maintenance and troubleshooting of high-voltage electrical systems, ensuring uninterrupted power distribution across multiple regions.
- Supported the design and implementation of electrical circuit layouts, improving system reliability.
- Collaborated with senior engineers in implementing safety protocols, reducing workplace hazards.

Awards and Certifications

- Advanced Google Data Analytics Program — Coursera (*Sep 2024*)
- McKinsey Forward Program — McKinsey & Company (*Jul 2024*)
- Azure Fundamentals Certification — Microsoft (*Aug 2022*)

Professional Affiliations

- Member, **Ghana Institution of Engineering (GhIE)** (*May 2024 – Present*)

References are available upon request.