

# Isaac Edem Adoboe

✉ ikeadoboe1@gmail.com

☎ (709) 853-2427

🌐 ieadoboe.github.io

📁 isaacedemadoboe

🔗 ieadoboe

## EDUCATION

---

### Memorial University of Newfoundland

Master of Science in Scientific Computing

St. John's, NL

Sept 2025 – Present

### Memorial University of Newfoundland

Masters in Data Science; GPA: 4.0; Fellow of the School of Graduate Studies

St. John's, NL

Sept 2024 – Aug 2025

### Kwame Nkrumah University of Science and Technology

Bachelor of Science in Electrical Engineering; GPA: 3.55/4.0

Kumasi, Ghana

Sept 2017 – Sept 2021

## EXPERIENCE

---

### Technology Portfolio Support Analyst

Newmont Mining Corporation

Akyem Mine, Ghana

Nov 2021 – July 2024

Promoted from End User Support Analyst (Aug 2022) to Technology Portfolio Support Analyst supporting mining operations technology infrastructure and data systems

- **IT Infrastructure Projects:** Coordinated cross-functional teams supporting 8+ major IT deployments including LIMS modernization (laboratory information management system), security system upgrades (Lenel), workforce management implementation (UKG), workstation transformation (hardware refresh), data center upgrades, AV infrastructure (Cisco/MS Teams), and mobile workforce management (iPad mWorkOrder). Participated in OPEX/CAPEX budget planning for technology investments.
- **Reporting Automation:** Developed automated reports from Lenel security systems data for finance and HR via Python and Power BI, scheduled for delivery at set times and replacing manual data collection processes.
- **Technical Support:** Achieved 95% first-contact resolution rate providing tier-1 and tier-2 support for 900+ users across enterprise software (MS Office, Webex) and mining applications (MineSight, Deswik, Vulcan, Jigsaw, LIMS).
- **User Adoption & Training:** Championed user engagement initiatives for IT infrastructure deployments, coordinating between IT/OT teams and operations to ensure seamless technology adoption. Conducted training sessions and developed troubleshooting documentation for technical systems.

### Front-End Developer

Envision Digital Signage Network

Kumasi, Ghana

Jan 2021 – Dec 2021

Part-time web development role during final year of undergraduate studies, leading React-based application transformation

- **Web Application:** Developed responsive React application for digital signage management, contributing to 100% sales growth. Reduced page load times by 40% through code splitting and performance optimization.
- **Component Architecture:** Created reusable component libraries (dashboards, data visualizations, forms) using React Context API and custom hooks.

### Electrical Engineering Intern

Volta River Authority

Akosombo, Ghana

May 2020 – Aug 2020

Summer internship supporting high-voltage electrical distribution systems for national power infrastructure

- **High-Voltage Systems:** Assisted maintenance and troubleshooting of 161kV and 330kV transmission lines ensuring continuous power delivery. Participated in preventive maintenance scheduling and fault analysis.
- **Power Distribution Analysis:** Processed load flow data and voltage profiles for distribution optimization studies, identifying system improvements and efficiency opportunities.

## PROJECTS

---

### Surrogate-Based Optimization for Molecular Configurations [🔗](#)

Spring 2025

Developed machine learning surrogates for quantum chemistry calculations in protein-carbohydrate binding. Implemented global optimization algorithm across 24 molecular pairs with 16D feature space.

### Fine-Tuned CodeGen Model [🔗](#)

Winter 2025

Fine-tuned transformer-based CodeGen-350M on CodeSearchNet Python corpus using HuggingFace Transformers. Optimized training with GPU acceleration and evaluated using BLEU, CodeBLEU metrics for code completion quality.

### Machine Learning-Based Fault Detection in Induction Motors [🔗](#)

2021

Undergraduate thesis developing CNN architecture achieving 61.4% multi-class accuracy on motor fault classification. Processed motor current signals into time-frequency spectrograms with TensorFlow/Keras implementation.

## SKILLS

---

**Technical skills:** Python (NumPy, pandas, matplotlib, scikit-learn, TensorFlow, Keras, PyTorch), R, SQL

**Software & Tools:** Jupyter, RStudio, Git/GitHub, Azure, MS Excel, Power BI