### **SETH ABAYO**

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## **EDUCATION**

### EMORY UNIVERSITY – GOIZUETA BUSINESS SCHOOL

Atlanta, GA

Master of Science in Business Analytics (MSBA)

May 2024

• Coursework: Business Analytics, Data Visualization, Decision Analytics & Optimization, Machine Learning, Managing Big Data, Deep Learning, Marketing Analytics

## CARENGIE MELLON UNIVERSITY - SCHOOL OF ENGINEERING

Pittsburgh, PA

Master of Science in Information Technology - STEM credentialed program

May 2023

Coursework: Data Structure and Algorithm, Introduction to Deep Learning, Web Application, Distributed Systems, DevOps,
Applied Machine Learning, Mathematics for Machine Learning, Big Data Science

#### **EXPERIENCE**

Best Buy Atlanta, GA

# Data Scientist - Capstone Project

Jan 2024 - May 2024

- Develop attributive models to analyze market trends, enhancing targeted marketing strategies through the analysis of purchase frequency, spending patterns, product preferences, and customer demographics
- Enhance customer engagement through data-informed insights, which informed the creation of personalized marketing initiatives, significantly boosting conversion rates and customer retention

Marcaps LLC Atlanta, GA

# AI Engineer – Part time

Nov 2023 - May 2024

- Leading and developing customized GPT model to analyze 1000+ marketing papers, extracting key insights to transform marketing capabilities (ongoing)
- Pioneered use of Large Language Models(LLM) for marketing analysis, laying the groundwork for AI-driven research automation

**ISHYIGA** Sep 2022 - Dec 2022

#### Data Scientist Consultant

- Engineered cloud data warehouse with 40M data points enabling big analytics and insights via Python, SQL, ETL; also designed client dashboard for market trends within 3 months
- Achieved 90% accuracy forecasting product demand with location-based predictive models, delivering data-driven solution

**IREMBO Ltd**May 2021 - Nov 2022

# Software Engineer

• Revamped IremboGov's integration with RSSB's health insurance system, improving platform performance by 15%. Contributed to a team that upgraded Rwanda's immigration services, reducing visa and e-passport processing time by 95%.

## DATA SCIENCE PROJECTS

Emory University 2023-2024

## **Predictive Modeling for Online Advertising Optimization**

 Developed ML models for ad click-through rate prediction on a 30M+ dataset, comparing tree-based models, neural networks, and XGBoost, with top model reaching a 72% success rate

### **Retrieval-Augmented Chatbot for IMDB Movie Dataset**

• Built a chatbot powered by OpenAI's GPT-4 using Retrieval-Augmented Generation(RAG) to answer movie-related queries by retrieving from locally hosted IMDB database.

#### CARGENIE MELLON UNIVERSITY

2022

## Facial Recognition and Verification with Deep Convolutional Neural Networks

• Implemented a facial recognition model using transfer learning on ResNet-50, attaining over 90% accuracy on a 7,000 image dataset. Fine-tuned the model for facial verification, exhibiting proficiency in computer vision and biometrics

# Neural Sequence-to-Sequence Model for Speech to Text Translation

• Implemented an attention-based sequence-to-sequence neural network that translated speech audio to text translations with high accuracy. Project showcased experience in applying deep learning for speech processing and recognition

#### **SKILLS**

Analytics Tools: Excel, Tableau, Hadoop, Spark, Tensorflow, Gurobi, AWS, BigQuery, NoSQL, Git

*Programming Languages:* Python (Pandas, Scikit-learn), PyTorch, R, SQL, Hive, Pig, Impala, Sqoop, Kafka, Java, JavaScript *Techniques:* Machine Learning, Artificial Intelligence (AI), NLP, Big Data, Statistical Analysis, Visualization, Computer Vision Infrastructure and DevOps: Distributed Systems, CI/CD (Jenkins), Docker, Vagrant; Intermediate-Kubernates, Data Warehouse

### ADDITIONAL INFORMATION

• Student Guild President, Carnegie Mellon University | Class of 2020 Valedictorian, Adventist University of Central Africa