Michael Ambrose Affare

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TECHNICAL SKILLS

Programming Languages: Python, Java, SQL (T-SQL, PL-SQL)
Databases: Microsoft SQL Server, Oracle 11g / 21g, MySQL, MongoDB, Redis, Cassandra, Neo4j
Data Engineering/visualization: Tableau, Restful API, Linux, Docker, AWS Athena, AI Prompt Engineering
Cloud computing: AWS (S3, EC2, RDS, DynamoDB, IAM, Route53)*, Google Cloud (Big Query, Cloud Run, SQL, Looker)

EDUCATION

Carnegie Mellon University
Master of Information Systems Management   May 2023
- Dean's List Academic Achievement Award (Fall 2023)
- Graduated with the Highest Distinction Honors
- Vice President, Heinz College Finance Club, 2022-2023

Kwame Nkrumah University of Science and Technology
Bachelor of Science in Computer Engineering   May 2016
- Class Representative

CERTIFICATIONS

- AWS Certified Solutions Architect – Associate (SAA – C03)   October 2023
- AWS Cloud Practitioner (CLF)   September 2023
- Neo4j Certified Professional   April 2023
- ITIL Foundation Certificate   September 2019

WORK EXPERIENCE

Great Lakes Behavioral Research Institute – Pittsburgh, USA   June 2023 – present
Analytics Manager (Consultant)
- Led a multi-stakeholder program analysis of the Hello Baby service delivery model. This resulted in a modification to the predictive risk model that enabled teams to support priority-need families two months sooner than the previous model.
- Improved program assessments through the leadership of an analytics team utilizing SQL, Tableau, Python, data science models, and R. This resulted in more data-driven decisions by the Office of Community Services at Allegheny County's Department of Human Services.
- Boosted the unit's process efficiency via department-wide digital transformation—implemented Git for code version control, Microsoft Planner for project management, and enhanced data documentation.
- Managed data integrations between service providers (NGOs, school districts, etc.) and AC DHS.

Carnegie Mellon University – Pittsburgh, USA   August 2022 – present
Cloud Engineer - Research Assistant (Part-time)
- Designed and deployed the Workforce Insight Tool to AWS using RDS, EC2, Route53, and S3.
Teaching Assistant (Part-time)
- Head Teaching Assistant (TA) for Database Management (Fall 2022), Head TA for Distributed Systems (Spring 2023), and TA for Telling Stories with Data Visualization (Spring 2023)
- Award: Information Systems Management (ISM) Most Outstanding Teaching Assistant Award 2023.

FreshTrack Systems Limited – Queensland, Australia   April 2022 – August 2022
Business Intelligence/Application Support Analyst (Part-time)
- Developed T-SQL, SSRS, and Bold BI reports and financial analyses for fresh food tracing and supply chain stakeholders (farmers, distributors, retailers).

AirtelTigo (Airtel Ghana Limited) – Accra, Ghana   May 2017 – August 2022
Senior Solutions Architect: Analyst, IT Operations (Full-time)

- **Huawei**: Managed the migration of 55 third-party companies from Ericsson IN to the Huawei Convergent Billing System as part of Airtel and Tigo merger activities.
- **Meta:** Led the integration of 3rd party REST APIs with Meta-Facebook as a VAS service for AirtelTigo Customers, resulting in a 400% month-on-month increase in VAS revenue and customer acquisition growth.
- **Ericsson:** Led the IT systems migration to integrate with the Ericsson Dynamic Activation (EDA) platform.
- **NCA.gov.gh**: Integrated national identity verification API with SIM registration to reduce mobile fraud by 60%.
- Implemented telecommunications consumer products by coordinating cross-functional technical teams that increased revenues by (average) 5% from airtime and data products month-on-month in 2020.
- Led the development of a distribution management system (for sales/supply chain reporting and inventory management) using Node.js, Java (Android), and T-SQL, which yielded a $50,000 procurement saving.
- Analyzed business requirements by designing technical solutions and implementation strategies for the Airtel and Tigo merger integrations to achieve technical cost savings and system optimization.
- Maintained Tigo Ghana Limited's business systems and databases by automating support tasks with Python and T-SQL jobs, which ensured an availability KPI of over 99.8%.

PROJECTS

Estée Lauder – Data Engineer for a Web3 Data Analytics Pipeline Project   January 2023 – April 2023

- Role: Student Consultant (CMU)
- Implemented a [data engineering pipeline](#) to visualize [Web3 Analytics for Estée Lauder](#) using SQL, Neo4j graph database, and MongoDB to process data from web3 APIs. This created a low-cost, scalable, and reusable solution for understanding web3 personas, transactional behavior, and the relationships between NFT initiatives in the beauty and fashion industry.

Yum Brands – Data Analysts for ESG Social Media Data Analytics Project   August 2022 – January 2023

- Role: Student Consultant (CMU)
- Developed a data-driven solution for assessing the effectiveness of Yum Brands' ESG initiatives using social media sentiment analysis, market research, and data analysis. This resulted in 3 main data-driven recommendations to improve the visibility and effectiveness of ESG initiatives.