Michael Ambrose Affare

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TECHNICAL SKILLS

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

WORK EXPERIENCE

Great Lakes Behavioral Research Institute – Pittsburgh, USA   June 2023 – present
Analytics Manager (Consultant)
- Enhanced program assessments by leading four analysts utilizing SQL, Tableau, Python, and R to generate insights through dashboards, reports, and tools within life sciences business contexts. This increased data-driven program decisions by the Office of Community Services at Allegheny County's Department of Human Services (AC DHS) to support early learning resource centers, family centers, and school districts.
- Achieved process efficiency within the Analytics Technology and Planning (ATP) unit by spearheading a department-wide digital transformation. Implemented code version control using Git, project management using Microsoft Planner, and data documentation.
- Managed data integrations with onshore/offshore service providers (vendors, NGOs, school districts).

Carnegie Mellon University – Pittsburgh, USA   August 2022 – May 2023
Cloud Engineer - Research Assistant (Part-time)
- Designed and deployed the Workforce Insight Tool to AWS using RDS, EC2, Route53, and S3.
- Managed cloud security for the project IAM configurations; set up CloudTrail and Budgets monitoring.
- Supported the creation of the tool, which was part of a research effort that analyzed job mobility and skill transferability to help address job displacement and skills demand for recruiters and policymakers. Research Assistant, Block Center for Technology and Society in partnership with Intel, ARM, NSF (2023)

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 insightful BI reports and financial analyses for fresh food supply chain stakeholders (farmers, distributors, retailers) using T-SQL, Stored procedures, triggers, SSRS, and Bold BI, applying statistical analysis and forecasting after gathering stakeholder requirements.
- Performed root cause analysis on data reporting problems and developed effective solutions for clients.

AirtelTigo (Airtel Ghana Limited) – Accra, Ghana   October 2018 – August 2022
Senior Solutions Architect: Analyst (Full-time)
- 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.
- Analyzed business requirements and designed/implemented functional technical solutions/strategies for the Airtel and Tigo merger integrations to achieve technical cost savings and system optimization.
- Presented technical solutions to executives/stakeholders to drive business innovation & decision-making.
- 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.
- Star Performer (12/2021, 02/2020, 12/2019); Simplicity, Transparency, Relevance Excellence Award (12/2018)

OSTEC Limited – Accra, Ghana   May 2017 – October 2018
Senior Applications & Data Support Analyst (Contract)
- Maintained the business systems and databases of Millicom Ghana Limited by automating support tasks with Python and T-SQL jobs, which ensured an availability KPI of over 99.8%.

EDUCATION

Carnegie Mellon University
Master of Information Systems Management   May 2023
GPA 3.88
- Dean's List Academic Achievement Award (Fall 2023).
- Graduated with the Highest Distinction Honors.
- Vice President, Heinz College Finance Club, 2022-2023
- Student Consultant: Social Media Analyst for Yum Brands (KFC, Taco Bell, etc.); ESG impact and efforts.
- Capstone Project: Web3 Analytics for Estée Lauder; Visualization web3 offerings using graph databases.

Kwame Nkrumah University of Science and Technology
Bachelor of Science in Computer Engineering   May 2016
GPA 3.45
- Class Representative

CERTIFICATIONS

- ITIL Foundation Certificate   September 2019
- Neo4j Certified Professional   April 2023
- AWS Cloud Practitioner   September 2023

PROJECTS

CMU MISM Degree and US Job Market Analytics - Data Visualization Project, CMU, USA   November 2022
- Visualized the Master of Information Systems Management program's historical student employment records from 30+ PDF documents to generate insights for career services (https://bit.ly/mismjobs)

Automated Data Collection for client leads' contact information, Hubble.sh, Australia   July 2022
- Developed an automated Python data pipeline that scraped data from over 500+ company websites (and verified company registration against Australian Business Registry API) that created a contact information report of potential clients in Adelaide. This improved B2B engagement and increased conversion by 15%.

National Telecommunications SIM Re-Registration Database Project, AirtelTigo, Ghana   August 2022
- Led AirtelTigo's team on the National Communication Authority's Committee to verify SIM cards, which developed a process that reduced mobile fraud by 40% and improved customer data quality by 90%.
- Developed and optimized the customer registration database (CRM) using efficient logical and conceptual models to meet regulatory requirements and improve process efficiency.