Michael Ambrose Affare

Data Engineer, Data Analyst, Solutions Architect

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Solutions Architect with 6+ years in data analytics, engineering, and cloud solutions. Skilled in SQL, AWS, Tableau, and BI. Proven leader driving insights and strategic decisions to solve problems and enhance customer experience.

Core Skills

Programming Languages: SQL (T-SQL, PL-SQL), Python, Java, R,

Databases : Oracle 21g, Microsoft SQL Server, MongoDB, Neo4j, Redis, Cassandra,

Cloud Services : Amazon Web Services (S3, EC2, RDS, DynamoDB, IAM, Route53, Glue, Athena, Redshift, Snowflake, Databrick), Google Cloud Platform (GCP BigQuery, Cloud Run, Cloud SQL), Microsoft Azure,

Data Visualization : Tableau, PowerBI, QuickSight, Looker, Excel, Linux, Docker, Git, AI Engineering, ETL,

Data Engineering: Data Pipelines, data modeling, Apache Spark, Terraform,

Other Skills: Collaborating, Mentoring, Research and Develop, Organizational Management, , Lean Six Sigma

Work Experience

Analytics Manager Manager - Consultant
Jun 2023 - Present
Allegheny County Department of Human Services AC DHS, Great Lakes Behavioral Research Institute | Pittsburgh

- Data Analysis & Reporting : Led the KPI and metrics definition for 9 program areas and 42+ providers, overseeing analytics and data infrastructure management for $175 million in expenditures for the Office of Community Services (OCS).
- Team Development | Leadership: Managed analysts to develop reports and dashboards using SQL, Tableau, and Python, enhancing decision-making for the OCS.
- Strategic Insights : Conducted deep-dive analyses on the Hello Baby network of services, leading to a data science driven predictive risk model recalibration and reducing identification time of high-risk families by 2 months.
- Process Design | Process Improvement | Digital Transformation: Implemented Git for version control, project management with Asana and improved data documentation, streamlining workflows across all teams in the Analytics Department. Facilitated meetings to increase adoption.
- Data Integration: Designed workflows and developed processes for integrating data into the data warehouse from 70+ service providers, enhancing cross-program analytics.

Technical Project Lead - Cloud Engineer
Jan 2023 - May 2023
Carnegie Mellon University | Pittsburgh

- AWS Deployment : Designed and deployed a Workforce Insight Analytics Tool utilizing AWS services like RDS, EC2, Route53, and S3 and ensured cost efficiency using tools like AWS Budgets and Cost Explorer.

Teaching Assistant
Aug 2022 - Apr 2023
Carnegie Mellon University | Pittsburgh

- Head TA Database Management 95-703 (Fall 2022), Distributed Systems 95-702 (Spring 2023), and TA for Telling Stories with Data Visualization 94-870 (Spring 2023)
- Managed meeting scheduling (office hours) for all TA, facilitating lab sessions, graded assignments, and grading assignments and projects
- Award: Received the ISM Most Outstanding Teaching Assistant Award (May 2023).

Business Intelligence & Application Support Analyst
Apr 2022 - Aug 2022
FreshTrack Systems Limited | Adelaide, Australia

- BI Reporting: Developed SSRS, SSIS and Bold BI reports for supply chain stakeholders, improving data visibility.
- Automation: Optimized T-SQL jobs to automate operations, achieving 99.8% service availability.

Education

Carnegie Mellon University
May 2023

Master of Information Systems Management
Highest Distinction Honors
GPA 3.88

Kwame Nkrumah University of Science & Technology
May 2016

Bachelor of Science
Computer Engineering

Certificates

AWS Certified Solutions Architect Associate (SAA - C03)
Oct 2023

AWS Cloud Practitioner (CLF)
Sep 2023

Neo4j Certified Professional
Apr 2023

Security+
CompTIA
May 2024

ITIL Foundation Certificate
Sep 2019

Certified in Cybersecurity CC
ISC2
Jun 2024

Senior Solutions Architect : Analyst, IT   May 2017 - Aug 2022
AirtelTigo Airtel Ghana Limited | Accra

- System Development: Led the in-house development of a distribution management system, saving $50,000 in procurement costs using agile methodology.
- Business Development and Project Management: Designed solutions for the Airtel and Tigo merger, optimizing systems and reducing costs.
- System Migration: Managed migration of core IT systems to Ericsson Dynamic Activation platform and inspired the upgrade of change management processes.
- API Integration: Integrated third-party REST APIs, boosting VAS revenue and customer acquisition by 400% in 1 month for the Simbrella Loan Service after Meta APIs integration.
- Risk Management: Reduced mobile fraud by 60% by integrating SIM registration process with the national identity verification API.
- Revenue Growth: Increased revenues by 5% month-over-month through new product implementations.
- Awards: Star Performer (Dec 2021, Feb 2020, Dec 2019), Simplicity, Transparency, Relevance Award (Dec 2018)

Projects

Estée Lauder Web3 Analytics Project   Jan 2023 - Apr 2023

Data Engineer, Carnegie Mellon University Student Consultant: Implemented a scalable data pipeline and data architecture to visualize Web3 personas, wallets, and NFTs using APIs, Python, SQL, Neo4j, and MongoDB.

Yum Brands Social Media Analytics Project   Aug 2022 - Jan 2023

Data Analyst, Carnegie Mellon University Student Consultant:Conducted sentiment analysis and research to provide recommendations for Yum Brands' ESG initiatives.

Hubble.sh B2B Contacts Project, Australia   May 2022 - Jul 2022

Built an ETL pipeline aggregating and transforming data from Google Maps, website scraping, and JSON API integration, boosting Hubble.sh's conversion rates by 15% through streamlined client discovery, customer engagement and seamless contact integration for Apple, Google, and Salesforce.