Michael Ambrose Affare

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SUMMARY

An innovative, results-driven Data Professional (and Cloud Solutions Architect) enabling digital transformation through secure data engineering and analytics. Currently, leading an analytics team that guides data-driven decision making for Allegheny County DHS's Offices of Community Services and Children Youth & Family ($470M+/yr) by delivering detail-oriented analytical thinking, data pipelines, dashboard insights, reporting solutions and process improvements.

EDUCATION

Master in Information Systems Management, Carnegie Mellon University (GPA: 3.88)
Jan '21 — Dec '23
Pittsburgh, United States

- Highest Distinction Honors

Bachelor's degree in Computer Engineering, Kwame Nkrumah University of Science and Technology
Jan '12 — Dec '16
Kumasi, Ghana

PROFESSIONAL EXPERIENCE

Data Analytics Manager
Allegheny County Department of Human Service
Jan '23 — Present
Pittsburgh, United States
Analytics, Technology and Planning consultant via Great Lakes Behavioral Research Institute

- Led an 8-member analytics team to inform $470M+/year data-driven decisions by developing insights, reports, and dashboards.
- Achieved a 40% improvement in dashboard utility by redefining KPIs and creating an operations tech catalog for 12+ program.
- Enhanced partner data integration operations by standardizing ETL pipelines and automating data validation across 50+ providers.
- Boosted analyst efficiency by implementing GitHub, Asana, and LLM tools; built onboarding courses and data documentation.
- Utilized statistical analysis, mathematical modeling, and data manipulation techniques to structure raw data sets for analytical use.

Research Assistant
Carnegie Mellon University
Mar '23 — May '23
Pittsburgh, United States
Block Center for Technology and Society

- Enabled cost-effective analytics via AWS-deployed (RDS, Route53, EC2, S3) Workforce Insight Tool for collaborative research.

Teaching Assistant
Carnegie Mellon University
Aug '22 — May '23
Pittsburgh, United States
Heinz College of Information Systems and Public Policy

- Supported 3 graduate courses, Database Management 95-703, Distributed Systems 95-702, and Telling Stories with Data Visualization 94-870. Awarded "2023 ISM Most Outstanding TA" for excellence.

Student Consultant
Carnegie Mellon University
Mar '22 — Dec '22
Pittsburgh, United States
Heinz College of Information Systems and Public Policy - Student Projects and Internships

- **Estée Lauder**: Built Web3 data pipeline (Python, Neo4j, MongoDB) to analyze their customer's Web3 (NFT wallets) behavior.
- **Yum Brands**: Delivered ESG insights for Yum Brands via social media sentiment analysis.
- **Hubble.sh**: Boosted conversions by 15% through a Google Maps, web scraping, and APIs CRM-integrated ETL pipeline.

Business Intelligence and Application Support Analyst, Part-time
FreshTrack Systems Limited
Apr '22 — Aug '22
Boonah, Australia
Providing supply chain management and traceability software solutions for the fresh produce and aquaculture industries.

- Built BI dashboards (SSRS, SSIS, Bold BI) improving visibility across supply chain.
- Maintained 99.8% uptime by optimizing T-SQL and automating backend ops.

Senior Consumer Solutions Architect, IT Operations
Airtel Ghana Limited
Jan '18 — Jan '22
Accra, Ghana
Bharti Airtel is a leading global telecommunications company with operations in 18 countries across Asia and Africa.

- Saved $150K by leading in-house development of a web/mobile Distribution Management System, replacing a vendor system.
- Drove 5% MoM revenue growth by launching targeted digital telecommunication services products and bundles.
- Cut errors and inefficiencies in the sim card provisioning technical process by 80%, saving over $100k by process automation.

Business Solutions Architect, IT Operations
Airtel Ghana Limited
Oct '18 — Dec '21
Accra, Ghana

- Reduced post-merger operation costs by designing and implementing unified IT platforms and migrating subscribers.
- Reduced mobile fraud by 60% and improved customer PII data quality by 98% by integrating a National Identification Authority API.
- Boosted Simbrella mobile loan usage by 400% via Facebook-integrated VAS API integration.

Application Support Engineer - Level 2
Millicom Ghana Limited
May '17 — Sep '18
Accra, Ghana
Millicom International Cellular SA is an international telecommunications and media company across Asia and Africa.

- Improved uptime, KPI adherence and productivity by maintaining Linux/SQL systems through standardizing workflows.

CERTIFICATIONS

Data Analytics Professional, Google — Jun '25

Business Intelligence Professional, Google — Jul '25

Security Analytics Professional (CySA+), CompTIA — Apr '25

Security+, CompTIA — May '24

Certified Solutions Architect - Associate, AWS — Oct '23

Certified Cloud Practitioner, AWS — Sep '23

SKILLS

Programming   Python, SQL, Oracle 21g, Java, Microsoft SQL Servers, MongoDB, Neo4j, API Development
Cloud Computing   AWS, Glue, S3, EC2, Athena, Redshift, Databricks, Google Cloud Platform, Azure
Visualisation   Tableau, Power BI, ArcGIS
Data Processing   ETL, AI Prompt Engineering, Generative AI, IT Automation, Report Development, Data Modeling
Leadership   Mentorship, Team Leadership, Strategy Implementation, Global Teams, Cross-functional Initiatives
Communication   C-Level Presentations, Technical Consultation, Training, Problem Solving
Project Management   Agile Methodologies, Project Management, Portfolio Management, ITIL Certified