

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) Aug '21 — May '23
Pittsburgh, United States

- Highest Distinction Honors

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

PROFESSIONAL EXPERIENCE

Data Analytics Manager Jun '23 — Present
Allegheny County Department of Human Service 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 Mar '23 — May '23
Carnegie Mellon University 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 Aug '22 — May '23
Carnegie Mellon University 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 Mar '22 — Dec '22
Carnegie Mellon University 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 Apr '22 — Aug '22
FreshTrack Systems Limited 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 Jan '18 — Jan '22
Airtel Ghana Limited 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 Oct '18 — Dec '21
Airtel Ghana Limited 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 May '17 — Sep '18
Millicom Ghana Limited 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