

MICHAEL AMBROSE AFFARE

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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.

Certifications: Google Data Analytics & BI Professional • AWS Solutions Architect & Cloud Practitioner • CompTIA Security+ & CySA+

Skills: Python, SQL (Oracle, SQL Server, MongoDB, Neo4j), Tableau, Power BI, Java, AWS (S3, Route53, Glue, Athena, Redshift, Databricks), Azure, GCP, Linux, ETL, Data Modelling, AI Prompt Engineering

EDUCATION

Carnegie Mellon University – PA, USA

2021 – 2023

Master of Information Systems Management, Highest Distinction Honors GPA 3.88

Kwame Nkrumah University of Science and Technology – Kumasi, Ghana

2012 – 2016

Bachelor's degree, Computer Engineering

PROFESSIONAL EXPERIENCE

Allegheny County Department of Human Service – Pittsburgh, PA

2023–Present

Analytics, Technology and Planning consultant via Great Lakes Behavioral Research Institute

Data Analytics Manager (Jun 2023 – Present)

- 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.

Carnegie Mellon University – Pittsburgh, PA

2022–2023

Heinz College of Information Systems and Public Policy

Research Assistant (Mar 2023 – May 2023)

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

Teaching Assistant (Aug 2022 – May 2023)

- 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 2022 – Dec 2022)

- **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.

FreshTrack Systems Limited – Boonah, Queensland, Australia

2022–2022

Providing supply chain management and traceability software solutions for the fresh produce and aquaculture industries.

Business Intelligence and Application Support Analyst, Part-time (Apr 2022 – Aug 2022)

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

Airtel Ghana Limited – Accra, Ghana

2018–2022

Bharti Airtel is a leading global telecommunications company with operations in 18 countries across Asia and Africa.

Senior Consumer Solutions Architect, IT Operations (May 2021 – Jan 2022)

- 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 2018 – Dec 2021)

- 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.

Millicom Ghana Limited – Accra, Ghana

2017–2018

Millicom International Cellular SA is an international telecommunications and media company across Asia and Africa.

Application Support Engineer – Level 2 (May 2017 – Sep 2018)

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

ADDITIONAL INFORMATION

- Adept in collaborative problem-solving, mentorship, team leadership and people operations across global, cross-functional teams.
- Effective communication skills, with experience briefing C-level executives and leading end-to-end technical project strategies.
- Passionate about data governance, security policy and process development and implementation.
- Early adopter of emerging AI technologies; expert in AI prompt engineering for scalable data pipeline automation.
- Passionate about cultural exploration, hosting book clubs, biking, and global travel.