

Samuel Boadi Agyekum

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Data analytics and information security professional with experience building revenue-focused, data-driven systems for healthcare, recruitment, and hospitality businesses. Proven ability to use operational data to improve sales performance, reduce waste, strengthen data security, and support management decisions. Skilled in applied machine learning, business analytics, and governance in regulated environments.

EDUCATION

MSc Data Analytics and IT Security Management (Distinction)

Arden University - United Kingdom

October 2023 – September 2025

Bachelor of Science Information Technology (2nd Class Upper Division)

Ghana Communication Technology University - Ghana

October 2017 – October 2021

PROFESSIONAL EXPERIENCE

Digital Analytics & Systems Consultant (Freelance/Project-Based)

Ghana & United Kingdom

December 2021 – Present

Delivered data analytics, business intelligence, and information security systems for small and medium-sized businesses in healthcare, recruitment, and hospitality sectors.

Key Projects:

APPLIED DIGITAL SYSTEMS & COMMERCIAL PROJECTS

Pharmacy Inventory, Revenue & IT Security Analytics System (PH Anford Chemist Ltd.)

Ghana

December 2021 – February 2023

- Implemented a sales analytics system using [Aronium POS software](#) to monitor sales, disease-related demand, and stock movement.
- Built revenue and profitability dashboards analysing over 20,000 transaction records.
- Identified seasonal malaria, STIs and flu peaks, enabling advance procurement of antimalarial, sexual-health, and respiratory medicines.
- Increased availability of high-demand medicines during peak seasons such as harmattan, monsoon, Easter and Christmas, contributing to approximately 18% growth in monthly sales.
- Reduced expired stock losses by over 50% through demand forecasting and stock optimisation.
- Improved cashflow by prioritising high-margin products and reducing slow-moving inventory.
- Implemented role-based access, secure backups, and data protection controls.
- Produced security risk assessment and governance documentation adopted by management.

Recruitment Intelligence, Revenue & Data Protection Platform ([Nagma Enfield Ltd.](#))

United Kingdom

April 2024 – March 2025

- Designed and managed [recruitment website platform](#) supporting worker sourcing, placement, and employer engagement.
- Developed visualisations analysing worker demand by trade (electricians, masons, tilers) and location.
- Identified skills shortages and adjusted [recruitment form](#), increasing placement success rate.
- Implemented placement and revenue tracking system linking [enquiries](#) to confirmed contracts.
- Supported growth in monthly placement revenue by improving enquiry-to-placement conversion by approximately 20%.
- Analysed marketing performance, linking digital campaigns to generated revenue.
- Implemented secure applicant data storage, encrypted document management, and access controls.
- Developed GDPR-aligned data handling and retention policies.

Hospitality Revenue, Occupancy & Security Analytics System ([Rich Comfort Hotel](#))

Ghana

January 2022–February 2023

- Designed [booking](#), occupancy, and revenue analytics system using reception and booking data.
- Calculated and monitored occupancy rate and average daily rate.
- Identified seasonal demand patterns and low-occupancy periods.
- Supported dynamic pricing, automated reservation reference generation for [mobile money](#) payments and forecast-driven promotions.
- Contributed to improvement in average occupancy rate from approximately 52% to over 65% within 12 months.
- Increased direct website bookings through channel performance analysis.
- Reduced revenue leakage by improving booking reconciliation and reporting.
- Implemented guest data protection controls, secure backups, and network security measures.

United Kingdom

- Delivered regulated care services while maintaining accurate digital records.
- Designed automated onboarding and [staff ID generation workflows](#), reducing administrative processing time by approximately 30%.
- Analysed operational and incident data to support rota optimisation and service reliability.
- Trained staff on secure device use and GDPR-compliant documentation

IT Personnel (Korle-Bu Teaching Hospital)

October 2021 – September 2022

Ghana

- Logged, analysed, and resolved up to 15 daily IT support tickets for the Trauma & Orthopaedics Unit, achieving same-day resolution through efficient incident analysis.
- Supported secure backup and data recovery workflows, ensuring availability and integrity of critical patient data during system outages.
- Configured devices and onboarded patients onto Lightwave Health Information Management System (LHIMS), standardising data entry and system setup to reduce onboarding time by 30%.
- Delivered cybersecurity awareness sessions to 40+ clinicians, improving data protection practices through clear, analytics-informed guidance.

KEY AWARDS AND ACHIEVEMENTS

- **2025 Vice Chancellor Award** (Arden University)
Awarded for outstanding academic achievement and contribution to the university community, recognised sustained high performance, leadership as a Peer Mentor, and meaningful impact beyond academic requirements while working full-time in a high-demand sector.
- **2025 Arden Achiever - Postgraduate (Top-up) School of STEM Award** (Arden University)
Awarded the School of STEM Postgraduate Award for exceptional academic performance and outstanding impact across STEM programmes, representing the faculty's top postgraduate achievement.

LEADERSHIP AND ENGAGEMENT

Peer Mentor (Arden University)

February 2025 – January 2026

United Kingdom

- Facilitated bi-weekly virtual support sessions for mentees, using feedback and engagement insights to improve understanding of student requirements and usage of university digital platforms.
- Analysed student queries and engagement patterns to effectively signpost learners to 10+ university support services, improving awareness and service utilisation.
- Collaborated with Peer Mentor Leads to escalate iLearn and e-Vision access issues, restoring system access within 24 hours through structured issue management.

Digital Champion (Chingford Library - Waltham Forest)

October 2025 – Present

United Kingdom

- Volunteer supporting older adults and community members to build confidence with digital literacy, including accessing NHS and Council online services, safe online use, and basic cybersecurity awareness (e.g., password hygiene and recognising common online risks).

CERTIFICATES AND CORE COMPETENCIES

Coursera: [IBM Data Analyst Essentials](#) - [Introduction to Data Analytics](#), [Excel Basics for Data Analytics](#), [Data Visualisation and Dashboards with Excel](#), [Cognos](#), and [Google Looker Studios](#).

Data Analytics: Python (pandas, scikit-learn), Excel (Advanced), Jamovi, Desmos.

Machine Learning: Logistic Regression, Random Forest, PCA, SHAP.

Data Visualisation: Tableau, Google Looker Studio, Cognos, Excel.

Information Security: GDPR, Access Control, FTK Imager, Winhex, Backup Systems, Risk Assessment.

Systems Platforms: GitHub, Jupyter, Aronium POS.

Workflow Automation & Integration Tools: Google Forms, Google Sheets,, Apps Script, Mail Merge, IFTTT.

PUBLIC ENGAGEMENT

Daily Tech Gems: [TikTok](#) & [Facebook](#)