

COLLINS OTIENO JUNIOR

Data Analyst · Business Intelligence · Research Analytics

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PROFESSIONAL SUMMARY

Results-driven Data Analyst with expertise in business intelligence, monitoring and evaluation (M&E), and impact measurement. Experienced in designing end-to-end analytics systems — Power BI dashboards, reproducible Python/R/SQL pipelines, and data-quality frameworks — and translating complex datasets into actionable insights for leadership, research, and nonprofit programs.

TECHNICAL SKILLS

Languages & Query	Python · R · SQL (PostgreSQL, MySQL)
Visualization	Power BI · Tableau · Advanced Excel (Pivot Tables, Power Query, XLOOKUP, INDEX-MATCH, Conditional Formatting, Dashboard Development)
Analytics	EDA · Statistical Analysis · NLP / Topic Modelling
Data Engineering	ETL Pipelines · Data Cleaning · Data Quality
Methods	M&E · Survey Design · Business Intelligence
Tools & Platforms	BigQuery · Git/GitHub · Google Sheets

PROFESSIONAL EXPERIENCE

Research Fellow — Data & AI Systems | Equitech Futures

Nov 2024 – May 2025 · Remote

- Built and maintained Python and R pipelines for cleaning and analyzing large-scale research datasets, improving workflow reproducibility and reducing processing time by an estimated 40%.
- Automated topic modelling and insight-extraction workflows using NLP techniques (spaCy, NLTK), cutting manual review effort significantly across multi-source corpora.
- Produced executive reports, dashboards, and evidence-based recommendations translating complex research findings into actionable insights for multidisciplinary stakeholders.

Founder & Lead Data Systems Developer | Shamba Salama

Oct 2024 – Jun 2026 · Nairobi, Kenya

- Designed and implemented end-to-end data collection, monitoring, and reporting systems supporting evidence-based operational decision-making.
- Developed interactive Power BI dashboards tracking farmer adoption, crop performance, environmental indicators, and organizational KPIs for project monitoring.
- Built SQL-powered reporting systems and automated reporting workflows that improved accessibility of operational insights for technical and non-technical stakeholders.

Founder & Executive Director | Start Walking Foundation

Jan 2025 – Present · Migori, Kenya

- Designed organizational monitoring, evaluation, accountability, and learning (MEAL) systems to measure educational and community impact across multiple programs.
- Developed dashboards and reporting frameworks used to communicate organizational performance, beneficiary outcomes, and program KPIs to the Board of Directors and strategic partners.

- ▶ Coordinated grant research, proposal development, and evidence preparation for international funding opportunities, including the FIFA Global Citizen Education Fund, UN SDG Action Awards, and FAWE initiatives.

Researcher, Data & Evaluation | USIU-Africa — Yearbook Committee May 2025 – Sep 2025 · Nairobi, Kenya

- ▶ Designed and administered structured surveys to collect academic and institutional data from students and faculty, ensuring ethical data handling throughout.
- ▶ Cleaned and validated datasets in R and Excel, including duplicate detection and data-quality assessments, ensuring analytical integrity before reporting.

Teaching Assistant — Data Analytics | USIU-Africa Jan 2025 – May 2025 · Nairobi, Kenya

- ▶ Facilitated practical lab sessions on data cleaning, exploratory analysis, visualization, and reproducible workflows for undergraduate students.

PROJECTS

African Agricultural Productivity — Growth Accounting Analysis Jun 2026 – Jul 2026

Python · pandas · scikit-learn — github.com/CollinsAnyona/african-agriculture-productivity

- ▶ Decomposed six decades of agricultural output growth (USDA ERS data, 200+ countries) into input- vs productivity-driven growth: Sub-Saharan Africa's 3.3%/yr growth in 2011–19 contained effectively zero productivity contribution vs 1.3 points for the world.
- ▶ Built a K-means typology of 52 African countries and a trend forecast to 2035; shipped as a one-command reproducible pipeline with an explicit limitations section.

Child Survival & the SDG 3.2 Deadline — Panel Analysis Jul 2026

Python · pandas · statsmodels · scikit-learn — github.com/CollinsAnyona/african-child-survival

- ▶ Built a 1990–2024 under-5 mortality panel for 54 African countries (World Bank/UN IGME API): 43 countries at least halved child mortality, yet only 9 are on track for the SDG target — all having already met it.
- ▶ Fixed-effects panel regression (1,237 country-years) showed the vaccination–mortality association exists between countries but vanishes within them; a single-feature baseline tied gradient boosting — reported honestly rather than oversold.

Learning Poverty & the Completion Gap — Forecast Benchmarking Jul 2026

Python · pandas · scikit-learn — github.com/CollinsAnyona/african-learning-poverty

- ▶ Quantified the enrollment-vs-completion gap across 42 Sub-Saharan countries: enrollment rose 71%→97% since 1990 while completion rose only 53%→69%, widening the regional gap from 18 to 28 percentage points.
- ▶ Backtested 2030 completion forecasts (207 out-of-sample predictions): a naive persistence baseline (MAE 7.7) beat gradient boosting (9.1) and linear trends (13.8); documented as a model card on when simple methods win.

Student Career Aspirations — LLM Transcript Analysis Apr 2025

Python · OpenAI API · Streamlit · scikit-learn — github.com/CollinsAnyona/LLM-analysis

- ▶ Built an OpenAI-powered pipeline extracting career themes from interview transcripts, with a Streamlit dashboard (LDA topic modeling, K-means clustering, sentiment analysis); real participant data excluded for research ethics.

EDUCATION & CERTIFICATIONS

BSc (Hons) Software Engineering — African Leadership University May 2023 – Apr 2026

BSc Data Science & Analytics (in progress) — USIU-Africa, Nairobi Sep 2024 – Present

Google Data Analytics Professional Certificate · Coursera, 2026