

PHARAOH KIPKIRUI CHIRCHIR

SENIOR BI & APPLIED AI ENGINEER BUILDING TRUSTED DECISION SYSTEMS FOR MULTI-COUNTRY OPERATIONS

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PROFESSIONAL SUMMARY

Senior BI & Applied AI Engineer with 9+ years of progressive experience building trusted decision systems for multi-country operations. Turns fragmented enterprise data into governed semantic models, executive reporting, analytical applications and AI-enabled workflows. Supports analytics across 12+ countries in Africa and the Middle East, with earlier experience across UN Migration, humanitarian operations and insurance. Core capabilities include Power BI, SQL, Python, semantic modelling, Microsoft Fabric, Snowflake, Dynamics 365 data, deployment pipelines, data quality and stakeholder-led delivery. Applies RAG, document intelligence, foundation models and orchestration where they improve decision speed or quality. Combines hands-on engineering with analytics leadership, requirements translation, standards, UAT, controlled release and user enablement.

Selected impact: 75% less recurring reporting effort | Reduced process cycle from 50 to 29 days| 70+ staff-hours/month saved | 12+ countries supported | 20+ analysts enabled | 40% lower recurring BI support demand | 100,000+ records supported in system transition

CORE EXPERTISE

- **Enterprise analytics & BI:** Power BI, DAX, Power Query, semantic models, star schemas, RLS, KPI frameworks, executive dashboards, self-service BI, Tableau and Excel, dimensional modeling.
- **Power BI lifecycle & governance:** Workspace/app design, Deployment pipelines configuration, certified/reusable semantic models, deployment pipelines, Dev/UAT/Production release controls, refresh monitoring, security, documentation and adoption.
- **Analytics & decision support:** Advanced SQL/T-SQL, Python analytics, descriptive and diagnostic analysis, trend/outlier analysis, regression, forecasting, hypothesis testing, classification and model evaluation.
- **AI application development:** Python, RAG, vector retrieval, document intelligence, prompt design, structured outputs, FastAPI, Streamlit, AWS Bedrock, Amazon Q / Quick Suite, Microsoft Foundry and AI Builder.
- **Enterprise platforms & integration:** Microsoft Fabric, Snowflake, Dynamics 365 Business Central, Dynamics CRM/Dataverse, Dynamics NAV, OneLake/Lakehouse/Warehouse concepts, Power Automate and SQL-based integration.
- **Leadership & delivery:** Analytics requirements, prioritization, stakeholder facilitation, UAT, data quality, reconciliation, release governance, mentoring, training, documentation and cross-functional delivery.

PROFESSIONAL EXPERIENCE

GARDAWORLD SECURITY - AFRICA & MIDDLE EAST

May 2025 - Present

Senior Regional Data Analyst

Nairobi, Kenya

Scope: Regional analytics & BI development | semantic modelling | Power BI lifecycle | AI application development | governance | stakeholder enablement

- Regional reporting depended on Excel dashboard, repeated preparation across Dynamics 365 Business Central, CRM/Dataverse, Snowflake, SQL onsite servers, SharePoint and operational sources; standardized reusable analytical datasets, semantic models and Power BI reporting, reducing recurring report-preparation effort by approximately 75%.
- Leadership needed one reliable view of budgets, forecasts and operating KPIs across 12+ countries; built executive and country-level and regional analytics with governed measures, drill paths and exception views that support monthly performance reviews and management action.
- Inconsistent definitions and source-grain differences created reconciliation risk; established KPI logic, data-quality checks, exception monitoring and source-to-report controls so issues are resolved before executive reporting.
- Reporting changes needed a repeatable enterprise release process; translated Finance and Operations requirements into acceptance criteria, semantic-model changes, UAT scenarios and controlled Dev/UAT/Production deployment pipelines, with RLS, documentation and version control built into delivery.
- Regional teams needed scalable BI foundations rather than report-by-report with data coming from many ungoverned sources. I developed Snowflake Warehouse/Dataflows/Pipelines with certified semantic models readily usable for Power BI reporting while collaborating with platform and source-system teams on upstream data needs and organizational business logics and KPI.
- Alarm deployment data did not show the financial effect of repeat false alarms; built Power BI alarm intelligence that surfaced approximately KES 1.2M in estimated monthly cost exposure for management review and operational follow-up.
- Country teams relied heavily on central BI support; trained 20+ analysts and business users in Power BI, SQL and reporting practices, contributing to an estimated 40% reduction in recurring support demand and stronger self-service capability.
- Business teams needed faster access to trusted documents and operational knowledge; built and tested RAG/document-intelligence applications and AI-assisted workflows using Python, AWS Bedrock, Microsoft Foundry, AI Builder and Power Automate, grounding responses in controlled sources and structured outputs.

INTERNATIONAL ORGANIZATION FOR MIGRATION (IOM)**Sep 2022 - Apr 2025****Regional Operations Data Analyst**

Nairobi, Kenya | Regional scope

Scope: Operational analytics | process intelligence | data quality | partner reporting | decision support

- Exit-permit processing averaged about 50 days with limited stage visibility; built SQL and Power BI timeline analytics that isolated bottlenecks and supported workflow changes, reducing average turnaround to 29 days and making resettlement process much faster.
- Recurring KPI, reconciliation and exception packs consumed substantial manual effort; automated data preparation and reporting workflows, saving more than 70 staff-hours per month and improving consistency of operational reporting.
- High-volume migration workflows lacked clear queue, ageing and throughput signals; translated case and service data into backlog, stage-duration and exception views that helped leaders prioritize work and target follow-up.
- Fingerprinting capacity was constrained by daily throughput; analyzed workload and process flow to support operational changes that increased capacity from about 20 to 30 cases per day.
- Operational data arrived through multiple case-management and partner-facing processes; implemented reconciliation, validation and exception controls so data-quality issues were resolved before leadership and external-stakeholder reporting.
- Leadership needed more than descriptive totals; applied trend, distribution, outlier, comparative and root-cause analysis to distinguish normal variation from process exceptions and strengthen evidence-based escalation.
- Complex regional workflows required shared definitions across programme and operational teams; translated business questions into data definitions, KPI logic and management views that non-technical stakeholders could use in planning and coordination.

CHURCH WORLD SERVICE - RSC AFRICA**Sep 2021 - Aug 2022****Senior Case Processing Analyst**

Nairobi, Kenya

Scope: Analytics leadership | operational reporting | team management | START user enablement

- As workload and quality-control demands increased, managed and mentored an 8-person analyst team, balanced assignments, reviewed case quality and escalated operational issues to maintain service delivery.
- Managers lacked a consistent view of workload, pipeline and quality across processing stages; expanded Tableau/SQL reporting used across 15 departments so teams could identify bottlenecks and prioritized cases including development of custom filters to support operations.
- Acted as a START system/reporting resource, translating user questions into reporting changes, SOP updates, training and repeatable operational guidance, ensuring seamless data migration with accuracy of 98%.
- Recognized with the CWS RSC Africa Innovation Excellence Award in 2021 for reporting and process-improvement contributions.

CHURCH WORLD SERVICE - RSC AFRICA**Apr 2020 - Aug 2021****Case Processing Analyst II**

Nairobi, Kenya

Scope: START UAT & migration | analytics development | data quality | system SME

- The START transition carried migration and adoption risk; supported UAT, test scenarios, workflow/filter validation, data-quality review and migration of 100,000+ case records, helping protect continuity and data integrity during rollout.
- Processing teams needed earlier visibility of departure readiness and bottlenecks; developed SQL/Python/Tableau analytical workflows for prioritization, readiness monitoring and exception follow-up.
- Contributed as a system SME to workflow and filter reviews, converting user feedback into test cases, reporting changes and practical guidance before wider use.

CHURCH WORLD SERVICE - RSC AFRICA**May 2018 - Mar 2020****Case Processing Analyst**

Nairobi, Kenya

Scope: Reporting analytics | data quality | operational monitoring

- Case-processing teams relied on fragmented workload and quality reporting; built Tableau and SQL monitoring used across 15 departments to improve visibility of stage-level exceptions and work queues.
- Reconciled recurring case-data exceptions with process owners and documented issues, improving the completeness and reliability of operational reporting.

RESOLUTION INSURANCE KENYA**Sep 2016 - Apr 2018****Claims Analyst**

Nairobi, Kenya

Scope: Claims analytics | reconciliation | operational reporting

- Claims teams lacked a consolidated view of case status, payments and data exceptions; built Excel-based reporting and reconciliation workflows that improved visibility for operational follow-up and resolved medical provider disputes.

LEADERSHIP & ENTERPRISE ANALYTICS DELIVERY

- Own analytics problems from requirement discovery through KPI definition, modelling, validation, UAT, deployment and adoption rather than treating dashboard development as a standalone step.

- Set practical standards for semantic models, reusable measures, RLS, data-quality checks, documentation and deployment pipelines so teams can scale reporting without multiplying conflicting definitions.
- Mentor analysts and business users, review analytical outputs and help teams move from ad hoc reporting toward governed self-service BI and repeatable decision-support products.
- Partner with Finance, Operations, programme and technical teams to prioritize analytics needs, explain trade-offs and convert complex data into recommendations that senior stakeholders can act on.
- Use Python, SQL, statistical reasoning and AI-assisted workflows where they improve speed or decision quality, while keeping enterprise reporting grounded in controlled source data and transparent business rules.

ANALYTICS METHODS & QUALITY DISCIPLINE

- **Decision analytics:** KPI design, variance analysis, trend and distribution analysis, ageing/throughput analysis, root-cause investigation, exception monitoring and operational recommendations.
- **Statistical & predictive methods:** Regression, hypothesis testing, forecasting, classification, anomaly detection, class-imbalance handling and model evaluation; strongest production evidence is in analytics, with ML evidence demonstrated through portfolio projects.
- **Quality & trust:** Source-to-report reconciliation, grain validation, metric definitions, UAT, RLS, controlled releases, version control and documented business rules.
- **AI quality practices:** Grounded retrieval, source citation, structured outputs, clear separation of retrieved evidence from generated text, deterministic testing where applicable and attention to reliability before workflow use.

ARCHITECTURE & DELIVERY EVIDENCE

- **Governed semantic models:** Design reusable facts/dimensions, relationships, DAX measures, hierarchies and RLS around shared KPI definitions so executive and self-service reporting use the same business logic.
- **Deployment & release discipline:** Use Development/UAT/Production workspaces and deployment pipelines with acceptance criteria, validation, documentation and version control to move analytics changes into production with traceability.
- **Multi-source enterprise analytics:** Integrate ERP, CRM and operational data from Dynamics 365 Business Central, CRM/Dataverse, Dynamics NAV, Snowflake and SQL; reconcile grain and business rules before modelling and consumption.
- **Analytics platform patterns:** Use Microsoft Fabric Lakehouse/Warehouse, Dataflows, Pipelines, OneLake and Direct Lake where they support governed BI, while collaborating with data/platform teams rather than positioning as a full-time data engineer.
- **AI application pattern:** Build retrieval-grounded applications around controlled knowledge sources, vector search, prompt/context design, structured outputs, citations and workflow integration; use testing and explicit guardrails to improve reliability.

TECHNICAL SKILLS

- **Business Intelligence & Analytics:** Power BI, advanced DAX, Power Query/M, Tableau, Excel, SQL/T-SQL, Python, pandas, NumPy, scikit-learn, XGBoost, Plotly and matplotlib; executive and operational reporting, KPI frameworks, diagnostic analysis, forecasting and predictive analytics.
- **Semantic Modelling & Analytics Platforms:** Reusable semantic models, star schema and dimensional modelling, RLS, certified datasets, workspace and app design, refresh monitoring, deployment pipelines and controlled Dev/UAT/Production lifecycle; Microsoft Fabric including Lakehouse, Warehouse, Dataflows, Pipelines, OneLake and Direct Lake; Snowflake and SQL Server for analytical querying, transformation, validation, reconciliation and reusable reporting datasets.
- **Enterprise Systems & Automation:** Dynamics 365 Business Central, Dynamics CRM/Dataverse, Dynamics NAV, Microsoft 365 and Power Automate; integration of finance, operational, customer and enterprise-system data into governed analytics and automated workflows.
- **AI Development:** Python-based RAG applications, vector retrieval, document intelligence, structured outputs, AI-assisted workflows and API-enabled applications using AWS Bedrock, Microsoft Foundry, Amazon Q / Quick Suite, AI Builder, FastAPI and Streamlit.
- **Analytics Delivery & Governance:** Requirements gathering, acceptance criteria, UAT, data quality controls, reconciliation, release management, Git/GitHub, Jira, Confluence, SOPs, documentation, user training and stakeholder enablement.

EDUCATION & CERTIFICATIONS

- **MSc Data Analytics, Nexford University** | Completed Dec 2024
- Relevant study: Machine Learning, Statistical Modelling, Business Analytics and Data Engineering concepts.
- **Bachelor of Economics & Statistics, Chuka University** | 2016
- **Microsoft Certified:** Power BI Data Analyst Associate (PL-300) | Fabric Data Engineer Associate (DP-700)
- **Additional:** Career Essentials in Generative AI | Career Essentials in Cybersecurity

RECOGNITION & PROFESSIONAL ENGAGEMENT

CWS RSC Africa Innovation Excellence Award (2021) | AI Everything Kenya x GITEX Kenya / ITU hackathon - MamaCare AI prototype | ICRC Cybersecurity & Data Protection Symposium | CITO East Africa IT Leaders Summit