

Victor Kituku

Data Engineer | Data Platforms, DevOps & Analytics Engineering

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PROFILE

Data engineer with 3 years of experience designing, building, and operating scalable, secure data platforms that turn raw data into usable, governed assets for analytics, reporting, and AI. Hands on with cloud data environments on Azure and Microsoft Fabric, ETL and ELT pipeline development, data lake and warehouse design, logical and physical data modeling, and automated data quality monitoring. Combines platform engineering with DevOps practice, covering CI/CD pipelines, automated deployment, environment configuration, monitoring, and incident resolution. Leads delivery on multidisciplinary engagements, reviewing designs, mentoring engineers, translating stakeholder needs into technical specifications, and enforcing data privacy and governance standards including the Kenya Data Protection Act.

CORE SKILLS

- **Leadership & Delivery:** team leadership and mentoring, technical ownership, design and code review, project planning and delivery, risk mitigation, stakeholder engagement, requirements translation into technical specifications, agile and multidisciplinary collaboration
- **Cloud & Data Platforms:** Azure, Azure Data Factory, Azure SQL, Logic Apps, Microsoft Fabric, OneLake, Lakehouse and Warehouse design, data lakes, data warehouses, storage and platform integration, scalable and cost efficient pipeline design
- **Data Engineering:** SQL, Python, PySpark, Spark, dbt, Airflow, Kafka, Debezium, ETL and ELT development, CDC, batch and real time processing, data extraction and preprocessing from operational systems, performance optimisation
- **DevOps & Platform Operations:** CI/CD pipelines, Git, automated deployment, environment configuration, Infrastructure as Code principles, operational monitoring and alerting, backups and recovery, patching and upgrades, incident response, root cause analysis
- **Modeling, Analytics & AI:** logical and physical data models, dimensional modeling, star and snowflake schemas, medallion architecture, semantic layers, metadata documentation, feature preparation for machine learning, prototyping, Power BI, PostgreSQL, SQL Server, Fabric Data Agents, MCP servers
- **Data Quality & Governance:** automated data quality monitoring, validation rules, anomaly detection and remediation, lineage, data security and privacy, Kenya Data Protection Act, compliance audits, documentation and training

EXPERIENCE

Founder & Lead Data Engineer | Shujaa Data Systems | Kenya *Current*

- Own technical direction for client data platform engagements, reviewing and approving solution designs, resolving technical challenges, tracking delivery progress against timelines, and mentoring junior engineers on engineering practice and continuous learning.
- Design and operate secure cloud data environments on Microsoft Fabric and Azure Data Factory, integrating CRM, application, API, and operational sources into governed Lakehouse and Warehouse layers and reducing manual data handling by 45%.
- Develop scalable ETL and ELT processes for batch and real time movement, optimising pipelines for performance and cost and cutting processing time by 35%.
- Build logical and physical data models across Bronze, Silver, and Gold medallion layers, including star and snowflake schemas and reusable semantic layers that serve dashboards, reporting, and AI consumption through Fabric Data Agents configured as MCP servers.
- Automate deployment, monitoring, validation, and alerting across environments using CI/CD practice, Data Pipelines, Dataflows Gen2, Logic Apps, Python, and SQL, then manage incidents, backups, and platform upgrades through to resolution.
- Establish automated data quality monitoring and validation rules, investigate anomalies, and maintain metadata documentation so analysts and business users can navigate datasets independently.

Data Integration & Automation Consultant | Strmflow | Remote

- Led design and delivery of batch and event driven integration pipelines using Python, SQL, REST APIs, n8n, and Make.com, synchronising CRM and operational systems across distributed environments.
- Owned source to target mapping, migration, reconciliation, and error handling across multi system implementations, reducing repeated manual reconciliation by 40%.
- Improved platform reliability and scalability through performance tuning, retry logic, exception handling, monitoring, and structured troubleshooting of production incidents.
- Aligned stakeholders through requirement sessions, documentation, training, and handover, managing expectations and resolving competing priorities across teams.

Data Officer | MwalimuPLUS | Kenya

- Managed and maintained student, teacher, and school databases integrated into the MwalimuPLUS Learning Management System, keeping master records accurate, complete, and correctly mapped across the platform.

- Analysed learner performance metrics to track how effectively users navigated assessments and KICD approved content, translating usage and outcome data into insights for content and engagement decisions.
- Ran routine system health and accuracy audits covering data synchronisation, mobile data delivery metrics, and portal performance, detecting anomalies early and driving corrective action.
- Designed and maintained analytical dashboards for management, partner NGOs, and school boards, reporting learning gains and STEM metrics to support funding and programme decisions.
- Enforced data privacy and governance controls aligned to the company privacy policy and the Kenya Data Protection Act, protecting minors records and controlling access to sensitive data.

Automation & Data Engineer | Fun Automations | Kenya

- Developed custom APIs and backend integrations using Next.js/TypeScript and Java patterns to move structured data between business applications, CRMs, and downstream analytics tools.
- Designed automated data workflows for migration, process improvement, and real time integration, including validation, logging, environment configuration, deployment, and operational monitoring.
- Worked cross functionally with clients and delivery teams to define data requirements, resolve integration challenges, document dependencies, and improve production workflows.

PROJECTS

Microsoft Fabric Analytics & AI Platform | Portfolio Project

- Architected a centralised data platform using OneLake, Lakehouse, Warehouse, Data Factory, Dataflows Gen2, and Power BI, modelling shared dimensions and fact tables in a medallion architecture and exposing governed semantic data to AI agents through MCP.

AI Intake & Data Automation Pipelines | Client Projects

- Built AI assisted intake pipelines using n8n, VAPI, GoHighLevel, REST APIs, and structured ETL logic to capture, validate, transform, route, and synchronise customer data into CRM systems, reducing manual intake effort by 50%.

EDUCATION & CERTIFICATIONS

- Bachelor of Business Information Technology, Second Class Upper, Technical University of Kenya
- Certificate, Data Engineering, LuxDevHQ
- Certificate, Data Science, Ngeni Labs