

# Paul Rukwaro

Senior Software Engineer

Distributed Systems, Databases & Cloud Infrastructure

## SUMMARY

Senior Software Engineer with 7+ years designing, delivering and supporting production systems across Microsoft, financial services and enterprise platforms. I combine hands-on engineering with technical direction, cross-team alignment and end-to-end ownership.

Nairobi, Kenya

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## EXPERTISE

|                       |                                                                                                                                                               |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Systems & data        | Distributed systems, Database-backed services, Asynchronous workflows, State management, SQL / Oracle SQL, Data integrity, Failure recovery                   |
| Languages & platforms | C# / .NET, C / C++, Java, Python, TypeScript, Azure, AWS                                                                                                      |
| Delivery & operations | Azure Functions / Durable Functions, Automated validation, Observability, Production diagnostics, Design and code reviews, Technical alignment, Documentation |

## RECENT EXPERIENCE

### Software Engineer - Microsoft

Windows Compliance & AI Tooling | Aug 2024 - Present

Technical design and hands-on implementation of engineering services and distributed validation workflows.

- Own discovery, prototyping, implementation, automated testing, integration and production support for C#/.NET engineering services.
- Architect asynchronous orchestration with Azure Functions and Durable Functions, evaluating scalability, state management, retries, fault recovery and operational simplicity.
- Lead production and pre-release investigation across services, applications, telemetry, operating-system, data-flow and network boundaries.

### Software Engineer - Prime Bank Kenya

Banking services & integrations | Aug 2023 - Aug 2024

Java services, REST APIs and database-backed integrations with core banking systems.

- Designed, developed, tested and supported backend integrations for business-critical financial data.
- Translated operational and regulatory requirements into integration contracts, validation rules and data flows.
- Designed workflows with controls for data integrity, auditability, access and failure handling.

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## EARLIER EXPERIENCE

### Software Engineer - Indra

Enterprise platforms | Jul 2021 - Aug 2023

C, C++, Java and Oracle SQL components for database-intensive enterprise platforms.

- Developed and maintained backend modules, data-processing components and cross-system integrations deployed in customer environments.
- Implemented performance and architecture improvements across application and database execution paths.
- Diagnosed production failures across application, database and infrastructure layers and implemented corrective changes.

### Software Engineer - Gessic

Backend & data-processing systems | Aug 2019 - Jun 2021

End-to-end delivery of backend services, operational data pipelines and automation.

- Delivered solutions from requirements and technical design through implementation, testing, deployment support and maintenance.
- Built pipelines to extract, transform, validate and analyze operational data.

## TECHNICAL LEADERSHIP

- I own discovery, prototyping and implementation for C#/.NET services and distributed validation, including design trade-offs around orchestration, state, retries and recovery.
- I drive design reviews, peer code reviews, documentation and testing strategy with engineering and external testing teams on complex system-level changes.
- I lead production and pre-release troubleshooting at Microsoft. At Prime Bank, I coordinated investigation and corrective changes across services, relational data stores and infrastructure.

## EDUCATION

MSc Computer Science - Georgia Institute of Technology | 2026-present | In progress

BSc Control Engineering - JKUAT | 2015-2019 | Completed

## SELECTED INDEPENDENT PROJECTS

- Crown Jewels Bridge - controlled Windows C++/.NET interoperability study evaluating boundary contracts, memory ownership and numerical compatibility.
- Retrieval Quality Lab - offline, synthetic-corpus evaluation of chunking, lexical/LSA retrieval and ranking, with explicit loss attribution.
- Silent-Failure Observability - simulated answer-quality monitoring comparing detection coverage, false positives, delay and modeled cost.
- Repository: [github.com/pauxru/Paul-Professional-Projects](https://github.com/pauxru/Paul-Professional-Projects)