# Wanyama William Achuchi

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# PROFESSIONAL SUMMARY

Backend & Systems Architect with 4+ years of experience designing fault-tolerant, scalable platforms across finance, IoT, and enterprise domains. Expert in distributed systems and service-oriented architectures (microservices, event-driven, CQRS). Proven ability to translate complex business requirements into secure, observable, and high-performance backend systems. Skilled in multi-cloud (Azure, AWS) and custom VPS/Linux environments, container orchestration (Kubernetes, Docker), and Infrastructure as Code (Terraform). Adept at leading engineering teams, setting platform roadmaps, and optimizing delivery pipelines (reduced deployment cycles by 40%, achieved 99.9% uptime across critical services). Fullstack experience with React, Node.js, and .NET ensures end-to-end ownership from system design to user-facing delivery.

## SKILLS

- Languages: JavaScript, TypeScript, Python, C, C#, SQL
- Frameworks & Platforms: React, React Native, Node.js, Express, Next.js, GraphQL, ASP.NET Core
- Databases: MongoDB, PostgreSQL, MySQL, SQL Server, Redis
- Architectures: Microservices, Event-Driven, DDD, CQRS, REST, GraphQL
- DevOps & Tools: Git, Docker, Kubernetes (AKS), Helm, GitHub Actions, Jenkins, Terraform, Ansible
- Cloud: Azure, AWS, Custom VPS/Linux (DigitalOcean, Hetzner)
- Observability: Prometheus, Grafana, Azure Monitor, Application Insights, OpenTelemetry

#### EDUCATION

• Africa International University Nairobi, Kenya Bachelor of Science in Information Technology

## EXPERIENCE

• Willsoft Technologies (Founder) Nairobi, Kenya

Founder & Senior Fullstack Architect Jun 2023 - Present

- Enterprise Systems Delivery: Led end-to-end delivery of financial platforms and enterprise apps; production systems processed \$1M+ annually.
- Platform Architecture & Scaling: Architected containerized microservices on AKS and Azure Linux VMs with Terraform and Helm achieving 99.9% uptime and horizontally scaling to support 30k+ concurrent users.
- Cloud DevOps Leadership: Established IaC practices (Terraform), gitops deployment workflows, and secure secrets management; reduced mean time to recovery (MTTR) by 55%.
- Financial Integrations: Built secure payment and reconciliation pipelines integrated with Stripe and M-Pesa; implemented transaction auditing and replayable event streams.
- GeoTruth Consult (IoT Project) Nairobi, Kenya

Mobile IoT Developer (Contract) - ESP32 & Firmware Jan 2025 - Jun 2025

- IoT Mobile Applications: Delivered React Native control app for ESP32 devices with OTA firmware updates and secure authentication.
- Embedded Systems: Wrote C and MicroPython modules for telemetry and device communication over MQTT.
- End-to-End Integration: Built backend ingestion pipelines with dashboards for monitoring device health and data streams (Azure Event Hubs, Stream Analytics).
- StudyBuddy Africa Nairobi, Kenya (Hybrid)

Senior Fullstack Developer & Lead Architect Sep 2024 - Jun 2025

- **Technical Leadership**: Defined cloud-native platform architecture: AKS, API gateway, event-driven processing, and distributed data partitioning.
- Scalable Platform Delivery: Migrated monolith to AKS microservices cut deployment time by 40% and improved fault isolation via namespaces and pod anti-affinity.
- Fintech Integrations: Implemented payment rails and KYC/AML providers; introduced real-time fraud monitoring and circuit-breaker patterns.
- Real-Time Learning Systems: Introduced GraphQL subscriptions and WebSockets for live course progress, chat, and notifications.

- GeoTruth Consult Hybrid / Nairobi, Kenya Fullstack Web & Backend Engineer Jan 2021 – May 2024
  - Client-Facing Platforms: Developed responsive web/mobile apps for surveying clients using React, React Native, and Express.
  - Backend Systems: Designed and optimized REST APIs, Postgres schemas, and reporting pipelines handling millions of rows of geospatial data.
  - Data Engineering: Built ETL pipelines with monitoring, anomaly detection, and recovery workflows for mission-critical data.
  - DevOps Practices: Implemented CI/CD with GitHub Actions and Jenkins, containerized services, and standardized deployments to AKS and Azure VMs.

#### Selected Projects

- Financial Network Marketing Platform (2025): High-scale fintech networking platform serving 30k+ active users; built with React, Node.js, PostgreSQL, Docker, and AKS. Reduced latency p95 by 30% after query optimization and caching.
- Fullstack Microfinance Management System (2024): Microfinance solution supporting loan origination, repayment schedules, KYC/AML flows, and reporting dashboards. Stack: React, .NET, PostgreSQL, Express APIs.
- Mobile IoT Control App (2025): Cross-platform React Native app with telemetry, OTA firmware, and dashboards for ESP32-based devices.
- Inventory Management POS System (2024): Real-time POS solution with inventory tracking, WebSocket notifications, and financial reporting; supported daily transaction volume of 50k+ items.
- Real-Time Chat Application (2023): Socket.io-based platform with private messaging, groups, and notification badges.

## DEVOPS & CLOUD EXPERTISE

Deep experience designing and operating multi-cloud and Linux-based production systems. Highlights:

- Azure: AKS (Kubernetes), Azure Linux VMs, Functions, App Services, Azure Monitor, Application Insights, Key Vault, VNets, Load Balancers.
- AWS: ECS/EKS, Lambda, EC2 autoscaling, S3, RDS, CloudWatch, IAM policies, CloudFormation for infra automation.
- Custom VPS / Linux: HAProxy + Nginx load balancing, Docker Swarm Kubernetes on bare metal, Ansible playbooks, Terraform with Hetzner/DigitalOcean, systemd failover scripting.
- CI/CD: GitHub Actions, Jenkins, Azure DevOps pipelines, containerized builds, image scanning, automated blue/green canary deployments.
- Security: RBAC, IAM, managed identities, Key Vault/Secrets Manager, VPNs, vulnerability scanning, zero-trust network segments.
- Observability: Prometheus, Grafana, CloudWatch, Azure Monitor, ELK, OpenTelemetry; proactive SLO/SLA monitoring with automated alerts.
- SRE Practices: Error budgets, chaos testing, runbooks, automated incident response, and postmortem culture.

#### System & Development Metrics (Selected)

I instrument systems and development pipelines to produce actionable metrics. Typical KPIs I define and track:

- Reliability: Uptime (99.9%+), availability SLOs, error rate (j=0.5% transactions).
- Performance: p50/p95/p99 latencies; example target p95 lt; 300ms for API endpoints.
- Throughput: Requests per second (RPS), background job throughput; example stable RPS 1500 with autoscaling rules.
- Operational: Mean Time To Detect (MTTD) Mean Time To Recover (MTTR) targets MTTD lt; 5 minutes, MTTR lt; 30 minutes for critical incidents.
- **Delivery:** Deployment frequency (daily to weekly depending on service), lead time for changes lt; 1 week, change failure rate lt: 15%.
- Cost Efficiency: Cloud cost per throughput unit, rightsizing reports, and budget alerts.