

Pius Dan Nyongesa

Senior Backend Engineer / Platform Engineer

📍 Nairobi, Kenya 📩 npiusdan@gmail.com 📞 +254 703 554 404
🔗 github.com/piusdan 💬 linkedin.com/in/piusdannyongesa

PROFESSIONAL SUMMARY

Senior Backend Engineer with 7+ years of experience designing, building, and operating high-scale, cloud-native backend systems and APIs. Proven track record of owning production microservices, data platforms, CI/CD pipelines, and distributed systems used by millions of users globally. Deep expertise in .NET (C#), Azure, event-driven architecture, and microservices. Strong focus on performance, reliability, security, and long-term maintainability.

CORE BACKEND & PLATFORM SKILLS

Languages: C#, .NET, Python, TypeScript

Backend: REST APIs, Microservices, Event-Driven Architecture

Databases: SQL, NoSQL (Cosmos DB), Data Pipelines

Cloud & Infra: Azure, Kubernetes, Docker, GCP

Messaging: Azure Service Bus, Event Grid, MassTransit

DevOps: CI/CD, Azure DevOps, Git, Infrastructure as Code (Bicep)

Observability: Monitoring, Logging, Tracing, ELK Stack

Architecture: Distributed Systems, Fault Tolerance, Resilience, Scalability

PROFESSIONAL EXPERIENCE

• Microsoft

Nairobi, Kenya

Software Engineer (Backend & Platform)

May 2019 – Present

- Designed and built high-scale backend microservices in C#/NET supporting AI-powered Copilot workflows across Microsoft business units.
- Built event-driven data ingestion and processing pipelines integrating LLMs with internal knowledge bases, serving millions of requests per day.
- Developed and maintained REST APIs and backend orchestration services for automation and data processing.
- Owned backend architecture for automated testing infrastructure running thousands of Windows application compatibility tests daily.
- Built self-healing distributed systems with automated failure detection, rollback, and recovery.
- Designed ring-based CI/CD deployments across multiple Azure regions with zero-downtime releases.
- Implemented system observability, monitoring, and alerting to ensure high availability and performance.
- Led architecture discussions, technical design reviews, and mentored junior engineers.

Tech Stack: C#, .NET, Azure Functions, Service Bus, Event Grid, Cosmos DB, MassTransit, Azure DevOps, Bicep

• Loanbee Limited

Nairobi, Kenya

Software Engineer (Backend)

Jun 2018 – May 2019

- Built a cloud-native fintech lending platform using microservices architecture deployed on Kubernetes.
- Designed backend services for loan origination, credit scoring, and payments processing.
- Integrated mobile money transaction data into alternative credit scoring models, reducing default rates by 15%.
- Built real-time observability platform using Elasticsearch, Kibana, and Logstash.
- Implemented service resilience using Istio service mesh with mTLS, retries, and fault tolerance.

Tech Stack: Python, Kubernetes, Docker, Istio, GCP, ELK Stack, Microservices

• Africa's Talking

Nairobi, Kenya

Software Developer

Apr 2017 – Jun 2018

- Built backend APIs for USSD, SMS, billing, and event ticketing platforms.
- Developed high-volume messaging systems serving 10,000+ users.
- Integrated telecom APIs for payments, airtime, and messaging.
- Built public participation and civic engagement platforms using USSD and SMS.

Tech Stack: Python, Flask, Django, USSD, SMS, API Integrations

SELECTED SYSTEMS & PRODUCTS

- **Copilot AI Platform (Microsoft):** Backend data ingestion and orchestration layer for enterprise AI workflows.
- **Loanbee Lending Platform:** Fintech credit and payments backend serving thousands of borrowers.
- **RoboPal AI:** WhatsApp-based AI education platform serving 10,000+ learners across Africa. robopal.co
- **ChangaChanga:** Multi-channel fintech payments platform integrated with Visa 3D and core banking systems. changachanga.co.ke
- **Kapu WhatsApp Shopping:** WhatsApp commerce backend driving 10% weekly GMV growth. kapuafrica.com

BACKEND ARCHITECTURE & SYSTEM DESIGN

- **Event Processing:** Designed distributed backend systems processing millions of events per day.
- **Fault Tolerance:** Built fault-tolerant microservices using retries, circuit breakers, and automated recovery.
- **Zero-Downtime Deployments:** Implemented zero-downtime deployments with ring-based rollout strategies.
- **Event-Driven Pipelines:** Designed scalable event-driven pipelines for AI and fintech platforms.
- **Security:** Built secure, cloud-native systems with identity, encryption, and service-to-service authentication.

PUBLICATIONS & SPEAKING

- **Kubernetes Security Publication:** Securing Kubernetes Clusters in the Cloud. [medium.com](https://medium.com/@piusdan/securing-kubernetes-clusters-in-the-cloud-3a2f3a2e0a)
- **Speaker — GDG Nairobi:** Running reliable Kubernetes platforms at scale.
- **Speaker — PyCon:** Building fast microservices using gRPC.
- **USSD Tutorial:** Open-source USSD development guide. github.com/piusdan/USSD-Python-Demo

EDUCATION

- **Jomo Kenyatta University of Science and Technology** 2015 – 2021
Bachelor of Science in Computer Science

LEADERSHIP & COMMUNITY

- **Founder — Silicon Blaze:** Founded a nonprofit teaching computer science to economically disadvantaged youth. Led 20 volunteers and trained 1,000+ students across Kenyan high schools. siliconblazeblog.wordpress.com

LANGUAGES

English, Kiswahili