

Shelton Mutambirwa

Backend & Site Reliability Engineer with experience deploying and scaling AI-driven microservices in production environments. Skilled in distributed systems, containerization, and performance optimization

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EXPERIENCE

EconetAI, Zimbabwe – AI and Digital Transformation Intern

August 2025 – Present

- Deployed and monitored AI-driven microservices (IVR, chatbots, APIs) in production, ensuring high availability through logging, alerting, and performance tracking
- Diagnosed and resolved latency, timeout, and connectivity issues across distributed, load-balanced systems, improving system reliability
- Built automated data pipelines and dashboards (Oracle, MongoDB, Power BI) to support real-time analytics and reporting
- Managed containerized services using Docker on Linux, including APIs, Redis caching, and message queues
- Evaluated and optimized LLM performance through prompt tuning, hallucination testing, and cost optimization

Mobalytics, USA – Market Research Intern

June – Nov 2024

Developed user insights and contributed to product expansion strategies

FAOU, Estonia – Marketing and IT intern

July – Dec 2024

Supported data analysis and platform operations in a remote team

EDUCATION

University of Zimbabwe, Harare – Bachelor's In Software Engineering

AUGUST 2023 – AUGUST 2027

Relevant coursework: Distributed Systems, Advanced Database Systems, Information Security

SKILLS

Technical:

Languages:

Python, SQL

Backend & Systems:

Microservices Architecture, API Development, Distributed Systems

DevOps / SRE:

Docker, Kubernetes (Learning), CI/CD, Linux, Shell Scripting, Monitoring & Logging

Databases & Data:

PostgreSQL, MongoDB, Redis, Cloudera (Hive, Impala)

Tools:

GitLab, Jira, Confluence, Postman, RabbitMQ, Power BI, LangFuse

Soft Skills: Cross-functional

Collaboration, Problem Solving &

Troubleshooting, Technical

Documentation (BRS)

Certificates and Programs

Mckinsey Forward Learners Program

Kubernetes African Developer Program

Microsoft Python Development

IBM DevOps and Software Engineering

Google Site Reliability Eng

Google IT Automation

PROJECTS

[TalkStack -WhatsApp Chat Analyzer Platform](#)

- Built a local-first full-stack application (FastAPI + React) to parse and analyze WhatsApp chat exports with privacy-focused, in-memory processing.
- Implemented chat parsing and analytics pipelines to extract messages, compute user metrics, and generate temporal and linguistic insights.
- Developed a modern multi-page React UI with context-based state management, glassmorphism design system, and structured data visualizations.
- Integrated optional AI-powered insights and voice transcription, leveraging LLM APIs and Whisper for qualitative summaries and audio analysis.
- Designed system with modular architecture and opt-in external processing, ensuring user data privacy while supporting extensibility for advanced features.

[AIGuard — LLM Safety Evaluation Toolkit](#)

- Built a modular, local-first framework to evaluate LLM safety across adversarial attacks, hallucinations, and runtime monitoring.
- Designed a CLI-driven orchestration layer with CI/CD integration and standardized JSON reporting for automated evaluations.
- Implemented an adversarial testing pipeline (ingest → mutate → evolve) to systematically generate and evaluate attack scenarios.
- Developed a pluggable evaluation engine and hallucination detection system supporting ground-truth, context-based, and self-consistency checks.
- Engineered a human-in-the-loop review system and async monitoring SDK, enabling real-time trace collection, risk scoring, and secure review workflows.

[Account Microservice — DevOps Capstone Project](#)

- Developed a **RESTful Account microservice** using Python Flask to manage customer data (CRUD + list) for an e-commerce platform.
- Applied **Test-Driven Development (TDD)** to implement endpoints while maintaining **≥95% test coverage** with unit and integration tests.
- Designed and implemented a **PostgreSQL-backed data model** following the Model-View-Controller (MVC) architecture.
- Containerized and deployed the service using **Docker and Kubernetes (K3D)** with CI/CD pipelines powered by Tekton.
- Built a **scalable microservice architecture** enabling seamless integration with other services in a distributed system.

Writing/Research Samples

[DiagnoMind](#)

[AI in Agriculture](#)