

LERATO TLHAKO

Senior Software Developer | Technical Leadership | Enterprise Systems & API Engineering

Enterprise Systems Engineering | API Architecture & Integrations | Production Reliability | Engineering Leadership

Professional Summary

Senior Software Developer who builds and modernises enterprise systems in high-impact production environments, with a strong focus on API engineering, automation, reliability and scalable solutions.

Known for solving systemic problems, reducing operational overhead and strengthening engineering practices across development, QA and operations. Experienced in system modernisation, distributed processing, observability, production support and technical enablement.

I bring a strong problem-solving mindset, combining hands-on engineering with continuous improvement to make systems more reliable, maintainable and easier to operate. I'm comfortable working across technical and business stakeholders to turn complex requirements into practical engineering outcomes.

Building toward technical leadership and software architecture through TOGAF and Lean Six Sigma Black Belt.

+27 63 734 8223

Leetlhako12@gmail.com

https://lerato-tlhako.netlify.app/

Backend & Architecture

SQL & NOSQL Databases | Camunda BPMN | Database Sharding | Layered Architecture | Batch & Retry Patterns | Event Driven Design | Liquibase/Flyway | Microservice Architecture | Spring Boot | REST API Design | Microservices | Java & Java EE

Frontend

Angular | React | Javascript/TypeScript

Logging, Observability & Quality

Structured Logging Standards | Mockito | Integration Testing | Swagger/OpenAPI | ELK/Kibana/Graylog | JUnit

Experience

Senior Software Developer (Developer IV) - FNB Billing (July 2025 - Present)

Enterprise Systems Engineering | API Design, Governance & Integration Standards | Distributed Processing | Reliability & Observability

- Led automation initiatives that eliminated manual QA processes by generating transaction test data, distributing files automatically, and reducing manual effort by ~90%
- Designed and implemented pricing comparison automation, enabling business users to upload datasets, analyse variances via dashboards, and download results — improving decision speed and accuracy
- Owned end-to-end migration of antivirus system from Java/JBoss to Spring Boot, including certificate handling, JWT key generation, API integration, configuration refactoring and improved logging
- Introduced structured logging standards, improving observability and reducing time to diagnose production issues (~80% improvement in traceability)
- Resolved a long-standing ~3-year production defect by identifying root cause and implementing a permanent fix
- Eliminated 100% of recurring DL support queries by improving system clarity, automation and operational processes
- Added pilot vs post-pilot metrics into Grafana dashboards, enabling system performance comparison and data-driven decision making
- Facilitated backlog planning, ticket sizing and prioritisation sessions, improving delivery alignment and engineering efficiency
- Led retrospectives and knowledge-sharing sessions, strengthening team learning culture and continuous improvement
- Presented technical progress and innovation initiatives at Tech EXCO and executive forums
- Introduced presentation standards for innovation pitches, improving clarity and quality of engineering communication

Junior → Full Stack Software Developer | VHI Team | Feb 2023 – Jun 2025

Full-Stack Engineering | REST API Development | Workflow Automation | System Integration

- Designed and deployed the Interaction System as a scalable microservice, improving interaction tracking and system modularity
- Built full-stack solutions for partner reconciliation and transaction systems, reducing manual workload and improving operational efficiency
- Developed and automated batch processes for time-critical workflows, improving reliability and reducing manual intervention
- Automated Vitality contract creation and reinstatement processes, reducing administrative overhead
- Led the Waiting Period Project, improving data accuracy and reducing risk of incorrect benefit activation
- Migrated ETM backend to Partner Interface, including major refactoring and improved AWS S3 search functionality

DevOps & Cloud Native

Docker | Kubernetes | OpenShift | CI/CD (Bamboo, Bitbucket pipelines) | Application Monitoring | Maven/Gradle | Grafana | Prometheus

Collaboration, Leadership & Delivery

Incident Analysis & Root Cause Elimination | Dev & QA Alignment | Knowledge sharing | Retrospectives & Post-Mortems | Lean Six Sigma | Technical Standards Governance | Agile (Scrum & Kanban)

Education

University of South Africa | 2025 - 2026
Advanced Diploma in Information Resource Management

University of Johannesburg | 2020 - 2022
Diploma in Business Information Technology

Bona Lesedi Secondary School | 2015 - 2019
Obtained Bachelor's Degree admission

Certifications

Process Optimisation & Delivery

- Lean Six Sigma Black Belt – Six Sigma Amsterdam Academy
- Lean Six Sigma Green Belt – Six Sigma Amsterdam Academy
- Six Sigma Yellow Belt – 6SigmaStudy / VMEDU
- Lean Six Sigma White Belt – Continuous Improvement Foundation

Architecture & Engineering

- **S**oftware Architecture: RESTful APIs – Udemy
- Software Engineering Foundations – Saylor Academy
- Java Testing & Quality (JUnit, Mockito) – Udemy
- DevOps & Delivery Practices – Udemy

Professional Development

- **M**cKinsey Forward Program – McKinsey & Company

In Progress

- **T**OGAF (The Open Group Architecture Framework)

Experience Continued

Junior → Full Stack Software Developer Role Continued

Full-Stack Engineering | REST API Development | Workflow Automation | System Integration

- Decommissioned redundant microservices and Kubernetes pods, achieving ~R192,000 annual infrastructure savings
- Implemented audit logging UI with advanced filtering, improving traceability and debugging capabilities
- Updated Camunda BPMN workflows to align with evolving business processes
- Co-led production go-lives, ensuring smooth deployments and system stability
- Supported production systems through standby, resolving incidents and maintaining reliability

Software Developer & Tutor | University of Johannesburg
Feb 2022 - Dec 2022

Technical Mentorship | Structured Problem Solving | Collaborative Delivery

- Delivered web applications aligned to client requirements using modern frontend engineering practices.
- Managed projects from requirements clarification to deployment, consistently meeting deadlines.
- Mentored students in software development fundamentals and code quality practices.
- Coordinated tutoring sessions and introduced learning tools improving completion and performance rates.

Innovation Projects

Agricultural Innovation Systems (AI/ML + IoT Platforms)

Lead Engineer • System Architect • 5 Hackathons • 5 First-Place Wins

Led architecture and delivery of three integrated agri-tech platforms using AI/ML models, IoT sensors, and drone-imaging pipelines to detect plant disease, optimise irrigation, and support real-time farm decision-making. Improved accuracy of diagnostics and automated several manual agricultural processes. Achieved five first-place hackathon wins for innovation, scalability, and system impact.

Secure Authentication & Fraud-Prevention Systems

Lead Developer • Authentication Architect • 2 Hackathons • 2 Wins

Designed and built secure authentication prototypes with behavioural verification, graphical passwords, and SIM-swap anomaly detection. Delivered multiple full-stack security solutions recognised with two top placements in cybersecurity competitions.

Internal Enterprise Innovations

Innovation Lead • Enterprise Engineering Concept • EXCO Presentation • Implementation Pipeline

Developed and presented an engineering innovation proposal shortlisted for implementation within the MyTime@FNB innovation programme. The presentation framework later influenced Innovation EXCO presentation standards.

Innovation, Hackathons & Awards

- Multiple first-place wins in competitive software, fintech and cybersecurity challenges.
- Recognised for technical excellence, problem-solving and applied innovation across diverse technology domains.
- Presented innovative solutions to executive leadership and senior decision-makers, translating technical concepts into business value.
- Developed a strong track record of turning complex problems into practical, high-impact solutions.
- Selected as the FNB Papercut Challenge Winner for True Balance, an independent innovation presentation selected from 180+ submitted ideas.