

LORENZ TAZAN

Systems Engineer | Infrastructure Automation Specialist

lorenztazan@gmail.com | 240-256-2410 | github.com/AIKUSAN | Portfolio

U.S. Permanent Resident | Authorized to work for any employer without sponsorship

PROFESSIONAL SUMMARY

Systems Engineer with **7 years of hands-on IT experience** specializing in **infrastructure automation and AI-enhanced DevOps workflows**. Expert in managing enterprise distributed systems with **99.9% uptime** while implementing **multi-LLM orchestration** (Gemini, Claude, ChatGPT) for intelligent automation. Proven track record: **96% database performance improvements, 65% cost reduction** through infrastructure optimization, and **93% deployment time reduction** via automated CI/CD pipelines. Expertise in **Docker, Kubernetes, Linux administration, network automation, and DevOps practices** with production-scale databases.

TECHNICAL SKILLS

Languages & Frameworks: Python, JavaScript/TypeScript, Node.js, Java, Bash, C/C++, PHP | Spring Framework, React, Express.js, Maven, FastAPI

Infrastructure & DevOps: Docker, Kubernetes, Linux (Debian/Ubuntu), nginx, Apache, CI/CD, Git, GitHub Actions, Terraform, Ansible, Nornir | MariaDB, MySQL, PostgreSQL, MongoDB, Redis

AI & Cloud: Multi-LLM Orchestration (Gemini, Claude, ChatGPT), LangChain, RAG, ChromaDB, n8n, Agentic Systems | F5 BIG-IP, MikroTik, pfSense, Ubiquiti | Azure, AWS | Prometheus, Grafana, SRE

PROFESSIONAL EXPERIENCE

Lead Systems Engineer (Remote Consultant)

Patrick Bezalel Pte Ltd | Project: Land of Promise | January 2023 - Present

- **Distributed Container Infrastructure:** Architected and managed a high-availability network of **25+ containerized server nodes** using a centralized resource orchestration platform; maintained **99.9% uptime** for a global community through advanced load balancing and automated failover protocols.
- **AI-Ops & Automation:** Engineered a custom infrastructure layer integrating **Gemini and Claude APIs** for intelligent network configuration validation and automated incident response, resulting in an **85% reduction in manual administrative overhead**.
- **Performance Engineering:** Optimized **JVM heap profiles** and **MariaDB/MySQL** query execution, achieving a **56% reduction in application latency** (80ms → 35ms) and a **96% improvement in database response times** while processing **2M+ daily queries**.
- **Modernization & DevOps:** Led the transition to a **dedicated Debian-based bare-metal environment**, implementing **Docker containerization** and automated deployment pipelines that cut operational costs by **65%** and deployment cycles by **93%**.
- **Distributed Systems Development:** Developed **15+ custom Java modules** (Spring Framework) integrated with **Redis, MongoDB, and MariaDB** to synchronize real-time data and maintain state across a multi-server distributed ecosystem.
- **AI-Driven Observability:** Replaced legacy monitoring with an **LLM-powered reporting system** that utilizes AI to interpret system logs and report critical security incidents (DDoS, service failures) in natural language, improving response time by **80%**.
- **International Technical Consultation:** Consulted remotely from the **United States (since 2024)** for the Singapore-based headquarters, collaborating with a 7-person cross-functional team to align global technical infrastructure with project mission goals.

Network Infrastructure Consultant

Proven Training Concepts (DoD Contractor) | Mar 2025 | Lexington Park, MD (On-site)

- Designed and documented **secure enterprise network architecture** using **Ubiquiti infrastructure** (UDM Pro, Switch Pro 24 PoE, Wi-Fi 6) for Department of Defense contractor facility.
- Produced comprehensive technical deliverables: BoM, CAT6 schematics, rack layouts, UPS redundancy plans, and disaster recovery documentation.
- Implemented **multi-layer security controls**: firewall rules, VLAN segmentation, and VPN controls aligned with **NIST 800-171** DoD cybersecurity standards.
- Achieved **0 audit findings** during government inspection for security compliance and project delivery.

Network Administrator / IT Specialist

Panay Telephone Corporation II | 2021 - 2022 | Independent Contractor

- Deployed **ISP-grade routing infrastructure** using **MikroTik RouterOS** for enterprise telecommunications clients, managing **BGP routing, MPLS configurations**, and **700+ concurrent subscribers** with **99.8% network availability**.

- Implemented pfSense firewall clusters with advanced load-balancing algorithms, achieving average latency <5ms to subscribers and optimizing traffic across a 10Gbps fiber backbone.
- Applied server security: ACLs, patch management, network segmentation. Provided 24/7 on-call support for outages and optimization.

CRM Analyst / Specialist

iQor | 2020 - 2021 | On-site

- Managed and analyzed customer data to improve client relationships and drive sales growth, generating actionable insights from CRM reports.
- Maintained and customized the CRM system, ensuring data integrity and optimizing workflows for cross-functional teams.
- Created detailed reports and dashboards to track key performance metrics, supporting data-driven decision-making.
- Collaborated with sales and support teams to align CRM processes with business objectives.
- Trained employees on CRM system use, best practices, and operational workflows to improve adoption and efficiency.

Owner / Technical Consultant

Teknomahika | 2015 - 2023

- Founded IT consulting business providing on-site and remote technical support for clients in various industries, specializing in hardware and software troubleshooting.
- Built, upgraded, and repaired computers and servers, including custom infrastructure builds for SMB clients. Server builds for Panay Telephone Corporation II led to the Network Administrator contract (2021-2022).
- Delivered hardware/software troubleshooting achieving 95%+ satisfaction across 20+ project engagements with 80% repeat business rate.
- Developed and maintained client relationships, managing project timelines and budgets with end-to-end delivery: procurement, installation, and testing.

KEY PROJECTS

AI-Powered Network Automation Framework | Multi-LLM Orchestration System

- Architected agentic AI system orchestrating 3 specialized LLM agents with LangChain + ChromaDB RAG.
- Automated network infrastructure workflows, reducing configuration errors from 12% to <1%.

NetOps Automation & Dual-AI Validation Platform | Enterprise Network Automation

- Developed production-grade network automation framework managing 100+ devices with 99.9% success rate.
- Built event-driven architecture with n8n workflow orchestration for zero-touch compliance and dual-AI validation.

Global Traffic Manager with AI-Powered Monitoring | Intelligent Load Balancing

- Engineered advanced GSLB solution using F5 BIG-IP GTM with custom Lua iRules for geographic traffic steering.
- Reduced latency 40% through implementation of AI-powered health monitoring and steering logic.

EDUCATION

Bachelor of Science - Computer Engineering (Undergraduate Coursework)

Interface Computer College | 2017 - 2020

Completed 3 years of curriculum focused on Computer Systems Architecture, Data Structures & Algorithms, Network Engineering, and Database Management.

TECHNICAL LEADERSHIP & R&D

- **Current Research:** Engineering autonomous "Self-Healing" infrastructure models and multi-agent AI supervisors for zero-touch network operations.
- **Ecosystem Focus:** Deepening integration between Cloud-Native architectures (Kubernetes/AWS) and Agentic Workflow Orchestration (n8n/LangChain).
- **Open Source:** Active contributor to automation frameworks, focusing on LLM-driven configuration validation and security policy enforcement.

References available upon request