LORENZ TAZAN

Systems Engineer | AI Infrastructure Specialist

California, MD • Open to On-site, Remote & Hybrid
lorenztazan@gmail.com | 240-256-2410
https://lorenztazan.com | https://www.linkedin.com/in/lorenztazan | https://github.com/AIKUSAN

PROFESSIONAL SUMMARY

Systems Engineer with **7+ years IT experience** specializing in **AI-powered infrastructure automation**. Expert in managing enterprise distributed systems with **99.9% uptime** while pioneering **multi-LLM orchestration** (Gemini, Claude, GPT-4) for intelligent infrastructure operations. Proven track record: **96% database performance improvements**, **65% cost reduction** through infrastructure optimization, and **80% deployment time reduction** via automated CI/CD pipelines. Deep expertise in **Docker**, **Kubernetes**, **Linux administration**, **network automation**, and **DevOps practices** with production-scale **MariaDB/PostgreSQL/Redis** deployments.

TECHNICAL SKILLS

AI & Automation: Multi-LLM Orchestration (Gemini, Claude, GPT-4), LangChain, RAG (Retrieval-Augmented Generation), ChromaDB, FastAPI, Agentic Systems, Vector Databases, n8n Workflow Automation
Languages & Frameworks: Python, JavaScript/TypeScript, Node.js, Java, Bash, C/C++, PHP | Spring Framework, React, Express.js, Maven
Infrastructure & DevOps: Docker, Kubernetes, Linux (Debian/Ubuntu), nginx, Apache, CI/CD, Git, GitHub Actions, Terraform, Ansible, Nornir, NAPALM
Databases & Caching: MariaDB, MySQL, PostgreSQL, MongoDB, Redis | Query Optimization, Replication, Performance Tuning
Network & Cloud: F5 BIG-IP GTM, MikroTik, pfSense, Ubiquiti, VLAN Segmentation, Load Balancing | Azure, AWS
Monitoring & SRE: Prometheus, Grafana, 24/7 Operations, High Availability, Disaster Recovery, Incident Response

---

PROFESSIONAL EXPERIENCE

Systems Engineer

Land of Promise | Jan 2023 - Present | Remote

- Architected and managed **24-server distributed ecosystem** serving **300+ concurrent users** with **99.9% uptime** through advanced load balancing, automated failover protocols, and real-time health monitoring.
- Pioneered **AI-powered infrastructure automation** integrating multi-LLM systems (Gemini, Claude, GPT-4) for intelligent network configuration validation, reducing manual intervention **70%** and configuration errors **85%**.
- Optimized **JVM performance tuning** and **MariaDB query optimization**, reducing application latency **56% (80ms → 35ms)** and database response times **96% (800ms → 35ms)** while handling **2M+ queries/day**.
- Led complete infrastructure migration to **Debian 12 bare-metal**, implementing **Docker containerization** and automated deployment pipelines, cutting operational costs **65%** and deployment time **93% (30min → <2min)**.
- Developed **15+ custom Java modules** with **Spring Framework** integrated with MariaDB, MySQL, Redis, and MongoDB for high-performance distributed applications on Pterodactyl infrastructure.
- Implemented comprehensive **24/7 monitoring and alerting systems** using Prometheus/Grafana, establishing incident response protocols that reduced MTTR **80%** and prevented **15+ critical outages**.

- Led and mentored **7-person distributed technical team** across multiple time zones, establishing code review standards, documentation practices, and knowledge-sharing sessions.

Network Infrastructure Consultant

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

- Designed and documented **secure enterprise network architecture** using Ubiquiti infrastructure (UDM Pro, Switch Pro 24 PoE, Wi-Fi 6 Enterprise) for Department of Defense contractor facility requiring **defense-grade security compliance**.
- Produced comprehensive technical deliverables: Bill of Materials (BoM), CAT6 cable infrastructure schematics, rack elevation diagrams, UPS redundancy architecture, and disaster recovery documentation.
- Implemented **multi-layer security controls**: firewall rule sets, VLAN segmentation, VPN access policies, and intrusion detection systems aligned with DoD cybersecurity frameworks and compliance standards.
- Conducted site surveys and performed network capacity planning for **50+ concurrent users** with Quality of Service (QoS) policies for mission-critical applications.

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 multi-site connectivity.
- Implemented **pfSense firewall clusters** with advanced load-balancing algorithms, optimizing traffic distribution across **3+ WAN connections** and achieving **99.5% network availability**.
- Established **defense-in-depth security architecture**: ACL policies, automated patch management systems, network micro-segmentation, and security incident monitoring protocols.
- Provided **24/7 on-call support** for critical network outages, performance degradation troubleshooting, and capacity expansion planning for growing client infrastructure demands.

Team Lead - Customer Relationship Management

iQor | 2020 - 2021 | Philippines (On-site)

- Supervised **customer support operations team**, conducted training on **Salesforce CRM** platform best practices, workflow automation, and data quality standards.
- Analyzed customer interaction data using **Excel dashboards** and Salesforce reports to identify service bottlenecks, improve first-call resolution rates, and enhance satisfaction metrics.
- Maintained and optimized **Salesforce automation workflows**, custom fields, and reporting dashboards to streamline case management and reduce average handle time **15%**.

Owner / Technical Consultant

Teknomahika | 2015 - 2023 | Philippines

- Founded and operated IT consulting business specializing in hardware repair, performance optimization, and custom infrastructure builds for SMB clients across retail and professional services sectors.
- Delivered **hardware/software troubleshooting** and **system performance restoration** achieving **95%+ client satisfaction** across **20+ project engagements** with repeat business rate of **80%**.
- Managed end-to-end project delivery: vendor procurement, hardware installation, OS configuration, security hardening, and testing for custom server and high-performance workstation builds.

KEY PROJECTS

AI-Powered Network Automation Framework

Multi-LLM Orchestration System | Python, FastAPI, Gemini, Claude, GPT-4, LangChain
github.com/AIKUSAN/ai-agentic-network-automation

- Architected **agentic AI system** orchestrating **3 specialized LLM agents** (Gemini for design, Claude for configuration, GPT-4 for deployment) with **LangChain + ChromaDB RAG** to automate end-to-end network infrastructure workflows based on **500+ production configurations**.
- Built **intelligent validation pipeline** with autonomous remediation capabilities, reducing configuration errors from **12% to <1%** and resolving network drift within **60 seconds** without human intervention, improving infrastructure consistency **95%**.

NetOps Automation & Dual-AI Validation Platform

Enterprise Network Automation | Python, FastAPI, Gemini, Claude, Nornir, NAPALM, n8n
github.com/AIKUSAN/netops-automation-framework

- Developed production-grade **network automation framework** managing **100+ network devices** across multi-vendor environments (Cisco, Arista, Juniper) with **99.9% success rate** and **dual-AI validation** (Gemini + Claude) achieving **100% consensus accuracy** on security policy enforcement.
- Built **event-driven architecture** with **n8n workflow orchestration** automating drift detection, AI validation, Slack notifications, and PostgreSQL audit logging. **Docker Compose 7-service stack** (3,350+ lines) with automated **Git-based drift remediation** for zero-touch compliance.

Global Traffic Manager with AI-Powered Monitoring

Intelligent Load Balancing System | F5 BIG-IP GTM, Lua, Gemini, Claude
github.com/AIKUSAN/global-traffic-manager

- Engineered **advanced GSLB solution** using **F5 BIG-IP GTM** with custom **Lua iRules** for geographic traffic steering, reducing latency **40%** with **AI-powered health monitoring** (Gemini + Claude) for predictive failure analysis and intelligent failover decisions.
- Implemented **dynamic resource allocation** with monitoring dashboards tracking **15+ KPIs** across **5+ data center locations**, automatically adjusting traffic distribution based on real-time performance metrics and geographic proximity.

MariaDB Performance Optimization Guide

Database Tuning & Optimization | MariaDB 10.11, Linux, Production Configs
github.com/AIKUSAN/mariadb-optimization-guide

- Documented enterprise-grade **MariaDB optimization strategies** achieving **96% query performance improvement** (800ms → 35ms) while handling **2M+ queries/day**, with **InnoDB tuning** improving write throughput **85%**.
- Implemented **advanced replication architecture** with semi-synchronous replication, GTID-based failover, and automated master election, achieving **99.99% data consistency** across **3-node cluster** with comprehensive benchmarking suite.

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.

CERTIFICATIONS & CONTINUOUS LEARNING

- Active contributor to open-source network automation and AI infrastructure projects
- Continuous learning: LLM integration patterns, Kubernetes orchestration, cloud-native architectures
- Industry research: AI-driven operations (AIOps), infrastructure as code best practices, SRE methodologies

References available upon request