

# LORENZ TAZAN

Systems Engineer | Infrastructure Automation Specialist

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

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## 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.

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## 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

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## 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*