# GERRAD CHIBUYE

**INFRASTRUCTURE ENGINEER IN TRAINING**

Infrastructure Engineering • Full-Stack Software Development

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## PROFESSIONAL PROFILE

Infrastructure Engineer & Full-Stack Web Developer with practical experience in network infrastructure, Linux systems, IT support, infrastructure troubleshooting, and the design and development of web applications. Currently completing a Diploma in Information Technology, with hands-on experience gained through supervised industry exposure, independent technical work, practical laboratories and software development projects.

In infrastructure engineering, experienced in configuring and troubleshooting IPv4 addressing, subnetting, VLSM, VLANs, inter-VLAN routing, DHCP, DHCP relay, static routing, OSPF, ACLs, SSH, port security, STP and BPDU Guard using Cisco Packet Tracer and GNS3. Additional exposure includes Oracle Linux, server environments, operating-system deployment, routers and switches, network cabling and data-centre operations.

In full-stack web development, experienced in building database-driven web applications using Python, Django, PostgreSQL, HTML, CSS and JavaScript, including backend development, database integration, responsive interfaces and application functionality.

Founder of GTech Academy, a free IT learning and professional community, where I organize technical learning activities, facilitate practical networking sessions, mentor learners and develop hands-on laboratory exercises. Focused on engineering reliable infrastructure and developing functional, user-centred software solutions.

## TECHNICAL SKILLS

### NETWORKING

IPv4 addressing • Subnetting • VLSM • VLANs & network segmentation • Inter-VLAN routing • DHCP • DHCP relay • Static routing • OSPF • ACLs • SSH • Port security • STP • BPDU Guard • Network troubleshooting • Cisco Packet Tracer • GNS3

### LINUX & SYSTEMS ADMINISTRATION

Linux command line • User and group management • File and directory permissions • SSH • Package management • systemd • Linux networking • Nginx • System monitoring and troubleshooting • Operating-system installation and configuration • VirtualBox • Oracle Linux

### FULL-STACK WEB DEVELOPMENT

HTML5 • CSS3 • JavaScript • Python • Django • Flask • PostgreSQL • SQL • Database integration • Django templates • Responsive web design • Backend development • Frontend development • Form handling and validation • Database-driven web applications • REST API fundamentals

### IT SUPPORT & INFRASTRUCTURE OPERATIONS

Hardware and software troubleshooting • Operating-system installation • Software installation and configuration • Computer setup and maintenance • Network cabling • Routers and switches • Server deployment • Server rack installation • Infrastructure troubleshooting • Technical documentation

### PROGRAMMING & DEVELOPMENT TOOLS

Git • GitHub • Python programming • Bash/shell scripting (developing) • SQL • Development environments • Command-line tools

**SECURITY**

Network security fundamentals • Access Control Lists (ACLs) • Port security • SSH security • Basic infrastructure hardening • Computer security fundamentals

## PROFESSIONAL EXPERIENCE

### IT Intern — Innovative Dynamics

January 2026 | Lusaka, Zambia

- Provided hands-on IT support involving hardware, software, operating systems and network-related issues.
- Installed and configured operating systems and software, and performed technical troubleshooting and fault isolation.
- Worked with routers, switches and network cabling in practical IT environments.
- Assisted with deployment of Oracle Linux on an enterprise-grade server.
- Participated under supervision in transporting and deploying the server to a data centre.
- Assisted with physically mounting the server in a server rack, gaining practical exposure to data-centre operations.
- Worked with technical personnel to investigate and resolve infrastructure problems.

### Founder — GTech Academy

May 2026 – Present | Lusaka, Zambia

- Founded and lead a free IT study and professional community focused on practical technical learning and professional development.
- Organize technical learning activities, study sessions, workshops and webinars.
- Design practical networking laboratories and teach networking and IT fundamentals.
- Mentor learners and help connect theoretical concepts with practical IT scenarios.
- Develop learning resources, documentation and technical community activities.
- Coordinate community activities while developing GTech Academy toward a future formal technology education and professional development organization.

### Independent IT Technical Experience — Self-Directed

2019 – Present | Lusaka, Zambia

- Approximately six years of hands-on experience installing, configuring and troubleshooting operating systems for personal use and other users.
- Install and configure operating systems and software, diagnose common hardware/software issues, and perform general computer troubleshooting.
- Conduct independent technical research and repeated practical experimentation with operating systems and computer systems.
- Build practical knowledge through hands-on troubleshooting, documentation and continuous technical learning.

## SELECTED TECHNICAL PROJECTS

**PERSONAL PORTFOLIO — Full-Stack Web Development**

*Technologies: Python, Django, PostgreSQL, HTML, CSS, JavaScript, Git*

- Designed and developed a responsive personal portfolio to showcase professional experience, technical skills and engineering projects.
- Implemented database-driven project management and a contact form with PostgreSQL-backed message storage.
- Developed reusable Django templates, responsive interfaces and structured application components.

- Implemented SEO metadata, structured data, sitemap and accessibility improvements.
- Achieved Lighthouse scores of 96 Performance, 100 Accessibility and 92 Best Practices.

**SYSGUARD — Lightweight Centralized Infrastructure Monitoring and Remote Management Platform**
*Technologies: Linux, Debian, Docker, Python, Prometheus, Grafana, SQLite*

- Developing a centralized platform for monitoring Linux servers and supporting remote diagnosis and controlled service recovery.
- Implemented server monitoring for availability, CPU, memory, disk, network and service health.
- Integrated Prometheus and Grafana for infrastructure metrics and visualisation.
- Developed monitoring and recovery workflows with event recording and alerting.
- Designed a lightweight architecture using Linux servers, Docker and SQLite.

**RESILIENT — High Availability and Load Balancing Infrastructure**
*Technologies: Linux, HAProxy, Keepalived, VRRP, Nginx*

- Designed and implemented a high-availability web infrastructure using redundant load balancers and multiple Nginx backend servers.
- Configured HAProxy for load balancing and backend health checks.
- Implemented Keepalived and VRRP to provide virtual IP failover between primary and backup load balancers.
- Tested backend failure, recovery, virtual IP failover and failback scenarios.

**OPERATION BLACKOUT — Enterprise Campus Network Design and Implementation**
*Technologies: Cisco Packet Tracer, VLANs, Router-on-a-Stick, LACP, STP, DHCP, SSH*

- Designed and implemented a simulated enterprise campus network with departmental VLANs and segmented IP addressing.
- Configured router-on-a-stick inter-VLAN routing, DHCP services and 802.1Q trunking.
- Implemented LACP EtherChannel, Spanning Tree Protocol and SSH-based device management.
- Applied switch port security and tested network connectivity, redundancy and fault recovery.
- Documented network configurations, addressing plans, verification procedures and troubleshooting findings.

### GTA Legal Services Network — Enterprise-Style Network & Security Laboratory

Cisco Packet Tracer

- Designed an enterprise-style network for Administration, Lawyers, Finance and Guest departments.
- Implemented VLAN segmentation, inter-VLAN routing, DHCP and router-based network services.
- Applied ACLs, SSH, and port security Guard as practical network-security controls.
- Documented insecure and secured configurations to demonstrate the impact of network-security measures.

## EDUCATION

### Diploma in Information Technology — Evelyn Hone College of Applied Arts and Commerce

January 2025 – December 2026 | Lusaka, Zambia

**Relevant areas:** Networking • Information Systems • Systems Analysis & Design • Operating Systems • Computer Security • Web Development • Project Development • Entrepreneurship

**Full Grade 12 Certificate — Justin Kabwe Secondary School**

Grade 10 – 12

**Full Grade 9 Certificate — Chakunkula Secondary School**

Grade 8 – 9

## CERTIFICATIONS & TRAINING

**IBM Full Stack Software Developer Professional Certificate**

Google/ Coursera – November 2026

**Google IT Support Professional Certificate**

Google / Coursera — February 2026

**System Administration and IT Infrastructure Services**

Google — February 2026

## LEADERSHIP & COMMUNITY

**Founder — GTech Academy** | Free IT Study & Professional Community

- Technical education and networking instruction
- Practical labs, workshops and webinars
- Mentorship, knowledge sharing and learner support
- Community coordination and development of learning resources

## ADDITIONAL INFORMATION

**LANGUAGES**

English — Professional working proficiency
Bemba — Full professional proficiency
CiNyanja — Proficiency

**PROFESSIONAL INTERESTS**

Network Engineering • Linux Infrastructure • Systems Administration • IT Infrastructure • Cybersecurity • Technical Education

## REFERENCES

**Isaac Phiri** — Assistant Technical Manager, Innovative Dynamics Ltd Zambia | 09711727180