

SAMMY MWENDWA KASANGO

Systems Software Engineer | Network Engineer | Digital Marketing

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Portfolio: sammykasango.github.io | GitHub: github.com/sammykasango | Credly: credly.com/users/sammykasango

PROFESSIONAL SUMMARY

Digital Systems Engineer with 3+ years of applied experience across three interconnected disciplines: Systems Software Engineering, Network Engineering, and Digital Marketing. Proficient in full-stack development (Python, C++, Node.js, React), network infrastructure design and security (Cisco IOS, TCP/IP, VLANs, firewalls), and technical digital marketing (SEO, GA4, conversion optimisation, email deliverability). I Builds platforms that drive performance with scalable infrastructure, and digital channels that grow. Open to senior engineering roles and full-stack digital engagements — local and remote.

TECHNICAL SKILLS

Systems Software	Python, C++, C#, JavaScript (ES6+), PHP, SQL, Bash	Web & Backend	React.js, Node.js, Django, Flask, Laravel, Express.js, FastAPI, Vue.js
Databases	PostgreSQL, MySQL, MongoDB, Firebase, Redis, SQLite	DevOps & Cloud	Docker, Kubernetes, AWS, GitHub Actions, CI/CD, Postman, REST APIs
Network Engineering	Cisco IOS, TCP/IP, DNS, DHCP, VLANs, BGP, Firewalls, VPN, VLSM, Site-to-Site VPN	Network Tools	Cisco Packet Tracer, Wireshark, tcpdump, SSL/TLS, Network Monitoring
Digital Marketing	Technical SEO, Google Search Console, GA4, Core Web Vitals, CRO, Email Deliverability	Marketing Tools	SPF / DKIM / DMARC, Meta Ads, Google Ads, Conversion Funnels, Content Strategy

PROFESSIONAL EXPERIENCE

Digital Systems Engineer — Freelance & Consulting

2024 – Present

Independent | Nairobi, Kenya (Local + Remote)

- Designed and delivered 30+ full-stack web platforms, APIs, and systems software tools for clients across Kenya.
- Implemented full-stack technical SEO strategies (on-page optimisation, Core Web Vitals, Google Search Console, GA4) growing client organic traffic from 12 to over 300 monthly visitors within 90 days with no paid ads.
- Configured email deliverability infrastructure (SPF, DKIM, DMARC) for business clients, eliminating spam folder delivery and restoring transactional email reliability.
- Optimised website performance for multiple clients — reducing average page load times from 4.8s to under 0.9s — improving Page-Speed scores from sub-20 to 90+ and directly improving Google search rankings.
- Delivered complete digital audits covering network health, web performance, and SEO positioning — providing layered diagnosis and implementation across all three engineering disciplines.

Software Engineering Intern

April 2024 – July 2024

Tunga.io | Remote

- Designed and implemented scalable backend microservices using Django REST Framework, improving API response efficiency for client-facing applications across a distributed system architecture.
- Collaborated in an Agile/Scrum team of 6 engineers — sprint planning, daily standups, code reviews using Git and GitHub.
- Expanded unit test coverage by 30%, reducing post-deployment defect rates and improving overall software reliability.
- Documented API endpoints using Postman and Swagger, enabling faster onboarding for new team members.
- Integrated third-party APIs and debugged cross-service communication issues within distributed microservices.

KEY PROJECTS

C++ Code Smell Detector | C++ | Static Analysis

- Architected a 35-module cross-platform static analysis tool detecting 30+ C++ code smell patterns including duplicate code, long methods, and dead code — compiled and tested on Windows, macOS, and Linux.
- Designed a fully modular detection engine with pluggable rule architecture, enabling engineers to extend pattern libraries without modifying core parser logic.
- Published to GitHub with SEO-optimised README, structured schema markup on the companion GitHub Pages site, and cross-platform release pipeline — indexed by Google under "Sammy Mwendwa Kasango" within 48 hours of launch.

Enterprise Network Infrastructure Projects | Cisco IOS | VLANs | VPN | VLSM | DHCP

- Designed and simulated hierarchical enterprise network topologies (core, distribution, access) using Cisco Packet Tracer — VLSM subnetting, VLAN segmentation, Router-on-a-Stick, and DHCP configuration across multi-site environments.
- Implemented network security controls including ACLs, DHCP snooping, and port security on enterprise-grade switching infrastructure.

Full-Stack E-Commerce Platform | React.js | Node.js | MongoDB | M-Pesa API

- Architected a complete e-commerce solution with user authentication, shopping cart, product management, and secure checkout — RESTful API across 12+ endpoints with clean, testable code.
- Integrated M-Pesa Daraja API for local mobile payment processing, enabling real-time transaction verification for Kenyan users.

EDUCATION & CERTIFICATIONS

Bachelor of Science in Software Engineering

Aug 2024 – Present

Murang'a University of Technology | Murang'a, Kenya

- Relevant coursework: Data Structures & Algorithms, Operating Systems, Computer Networks, Database Systems, Software Architecture, Distributed Systems.

HubSpot Digital Marketing Certification | Digital Marketing Curriculum

Issued March 15, 2026

HubSpot Academy | Verified credential — Digital Marketing fundamentals, SEO, content strategy, analytics, paid advertising, email marketing, and conversion optimisation.

Cisco Networking Academy | Network Engineering Curriculum

Issued April 10, 2026

Cisco Systems | Network design, VLAN configuration, VLSM, Router-on-a-Stick, DHCP, TCP/IP security, and hierarchical enterprise topology design.

Certificate in Computer Operations & Packages

Issued March 15, 2024

Rockers Computer College | Machakos, Kenya

LEADERSHIP & MENTORSHIP

Lead — Murang'a Tech Club & Christian Union Engineer

2025 – Present

Murang'a University of Technology

- Organised technical workshops and peer coding sessions for 30+ student members; introduced digital marketing for engineers as a workshop track.

REFERENCES

Available upon request.