

JAMES TAKYI

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Senior Network Automation & Site Reliability Engineer

Python Application Development | Cisco Routing, SD-WAN & Network Security | CI/CD, Testing & AI-Assisted Engineering

PROFESSIONAL SUMMARY

Senior network engineer with 13+ years across regulated healthcare, public-sector, and multi-site data center environments, combining deep Cisco routing, switching, SD-WAN, and network security fundamentals with real Python software development. Builds and operates production Python services that are containerized, test-gated, CI/CD-deployed, and instrumented, rather than one-off operational scripts. Uses Claude Code and Codex daily to accelerate development, testing, troubleshooting, refactoring, and documentation while keeping strong engineering controls in front of generated code: automated test and typecheck gates, code review, fail-closed configuration, and safe-degradation defaults. Partners across network, infrastructure, telemetry, DevOps, cloud, and AI teams, and translates technical findings for engineers and business stakeholders alike.

CORE COMPETENCIES

Network Engineering: Cisco SD-WAN / Viptela, Meraki, Nexus, ACI, Catalyst Center, BGP, OSPF, EIGRP, FabricPath, OTV, Enterprise Routing & Switching, LAN/WAN, Multi-Site Data Center, Multivendor Environments, Enterprise Change Management
Python & Automation: Python, Flask, asyncio, pytest, Netmiko, Paramiko, Ansible, REST API Design & Integration, YAML, Jinja, JSON, PowerShell, Configuration & Provisioning Automation, Telemetry and Reporting Workflows
Reliability, CI/CD & Observability: GitHub Actions, Automated Test & Lint Gates, Regression Gating, Containerized Services (Docker), Google Cloud Run, Sentry, Structured Logging, Secret Management, Fail-Closed Configuration, Release Runbooks, Incident Response
AI-Assisted Engineering: Claude Code, Codex, Generative AI, AI Agents, RAG, MCP Concepts, Prompt Engineering, Prompt-Injection Awareness, Secure AI Usage, AI Governance Concepts
Network Security: Palo Alto, Cisco ASA, Cisco ISE / NAC, DUO, Cisco Umbrella, 802.1x, IPSec / VPN, Segmentation, Identity and Access Controls, Secure Connectivity
Cloud & Architecture: AWS Certified Solutions Architect – Associate, Google Cloud (Cloud Run, Firestore, Secret Manager), Hybrid Infrastructure, Distributed Systems, Secure Architecture, Regulated Enterprise Environments

PYTHON, AUTOMATION & RELIABILITY ENGINEERING

- Build and operate a production multi-service platform: containerized Python 3.12 services (Docker) running on Google Cloud Run alongside a TypeScript API tier. An application codebase with tests, releases, and runbooks, not a collection of scripts.
- Own a five-job GitHub Actions CI pipeline that runs on every pull request: lint, unit tests, Python *pytest* suites, build-integrity guards that fail fast on missing or malformed configuration, emulator-backed authorization tests, and an automated secret scan across full git history.
- Maintain automated regression gates that block deploys when quality or safety thresholds are breached, plus 11 emulator-backed authorization test suites enforcing multi-tenant data isolation.
- Instrument services with Sentry, structured logging, and Google Secret Manager; services refuse to start when a required secret is unset rather than running in a silently degraded state.
- Integrated Claude (Anthropic on Vertex AI) as an independent verification layer, lazy-imported so the full test suite runs without the AI SDK installed and the service degrades safely when the dependency is unavailable.
- Use Claude Code and Codex daily to accelerate development, refactoring, troubleshooting, testing, and documentation, with review, typecheck, and test gates kept in front of generated code so speed never bypasses engineering controls.
- Automate network configuration, provisioning, reporting, and troubleshooting workflows in Python using Netmiko, Paramiko, Ansible, Jinja, and REST APIs to improve repeatability, documentation, and safe change execution.

PROFESSIONAL EXPERIENCE

Cigna | Bloomfield, CT

Senior Network Engineer | 08/2022 – Present

- Support enterprise healthcare network infrastructure across regulated, high-availability environments requiring disciplined change control, security awareness, and operational reliability.
- Engineer and troubleshoot complex environments spanning Cisco SD-WAN/Viptela, Meraki, Nexus, ACI, and Catalyst Center, with BGP, OSPF, and EIGRP across enterprise routing and switching.
- Contribute to network modernization and switch-refresh initiatives through technical planning, implementation risk analysis, change validation, and cross-functional coordination.
- Apply network security practices across identity, access, segmentation, VPN, firewall, and secure connectivity using Cisco ISE, DUO, Umbrella, ASA, and Palo Alto.

- Analyze packet flows, routing behavior, configurations, access controls, and dependencies to isolate complex incidents and provide actionable remediation guidance.
- Use Python, Ansible, and API-driven workflows to improve visibility, repeatability, reporting, documentation, and operational efficiency.
- Mentor peers on automation practice and practical AI tooling within enterprise security constraints.

State of Connecticut Judicial Branch | East Hartford, CT

Network Engineer | 02/2019 – 08/2022

- Supported network operations for two data centers and 70+ sites, maintaining reliable connectivity for mission-critical public-sector systems and distributed users.
- Managed routing, switching, WAN, VPN, segmentation, and secure connectivity across a complex multi-site environment.
- Built a full-stack internal web application (PHP, Python, JavaScript) that replaced a manual, paper-based inventory system, improving helpdesk and support-staff efficiency.
- Led network automation initiatives using Python (Netmiko, Paramiko) and Ansible to streamline configuration and deployment; deployed 100+ switches and 20+ routers.
- Investigated incidents through structured analysis of network protocols, packet and traffic flows, configurations, dependencies, and change history.
- Strengthened operational consistency through disciplined change control, escalation support, technical documentation, and repeatable troubleshooting practices.

Community Health Resources | Windsor, CT

Information Technology Professional | 10/2012 – 02/2019

- Supported LAN/WAN and infrastructure operations for approximately 900+ users across 12 healthcare locations, covering network connectivity, systems access, and endpoint/user issues in a regulated environment.
- Partnered directly with users and technical stakeholders to investigate complex issues, explain findings, and restore service efficiently.

SELECTED TECHNICAL PROJECTS

BOM Builder: Internal Network Delivery Platform, The Cigna Group

- Sole product owner and engineer: replaced a fragile multi-sheet Excel bill-of-materials workbook with a web platform (one URL, one database, no installs) where engineers select a site type, enter quantities, and a rules engine propagates licensing, DNA, and maintenance lines automatically.
- Cut a standard site build from ~3–4 hours to under an hour (~70% reduction). The shared instance carries 19 BOM projects, 18 delivery projects, a 382-SKU governed parts catalog, and 3 network topology templates, roughly 48–50 engineer-hours recovered.
- Node.js, Express, SQLite, and vanilla JS with Python tooling and Linux deployment; established the parts catalog as governed data feeding topology templates and project delivery gates.

Yomigo AI: Production Voice AI Platform (Python, Docker, Cloud Run, CI/CD)

- Designed, built, and operate a multi-tenant B2B platform: an async Python voice-agent worker containerized and deployed to Cloud Run, a TypeScript serverless API tier, telephony integration over SIP, and a React front end.
- Established the full delivery pipeline: GitHub Actions CI with lint/test/build gates, automated regression gating, secret scanning, deploy runbooks, Sentry monitoring, and Secret Manager-backed fail-closed configuration.
- Built the codebase primarily with Claude Code while enforcing engineering controls around it: automated test coverage, typechecking, isolated dependencies, and safe-degradation paths for every external service.

CarniFete: Carnival Operations Platform (carnifete.com)

- Built and operate a multi-tenant operations platform for carnival associations, bands, vendors, and masqueraders, covering registration, ticketing, installment payment plans, vendor permits, and member communications, with role-based authorization across five distinct user roles and separate permission boundaries.
- Integrated Stripe for subscriptions, installment plans, and one-time payments; adopted by the Virginia Carnival in 2026 and processing live transactions in production.

Base44 Creation Challenge: Team Favorite Prize winner for an independently designed and built application.

CERTIFICATIONS

CCNP Security | CCNA | Cisco Identity Management | AWS Certified Solutions Architect – Associate | Harvard CS50x | CompTIA Network+ | CompTIA A+

EDUCATION

Western New England University: Bachelor of Science in Information Technology