

KANNAN GIRIDHARAN

DevSecOps Engineer

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PROFESSIONAL SUMMARY

DevSecOps Engineer with 4+ years of experience in infrastructure automation, security integration, and legacy modernisation. Proven track record of reducing deployment times by 93% through CI/CD pipeline engineering, containerising 15-year-old monolithic applications into Docker-based high-availability architectures, and building custom security orchestration tooling. Experienced in leading infrastructure teams, implementing GitOps workflows, and establishing observability platforms across production environments. Open-source contributor with released tooling for security scanning, developer productivity, and deployment tracking.

TECHNICAL SKILLS

CI/CD & Automation: Forgejo, Forgejo Actions, Jenkins, Ansible, GitHub Actions, Git, Bash Scripting

Containers & Orchestration: Docker, Docker Compose, K3s (Kubernetes), Tomcat

Security Tooling: Semgrep, Trivy, TruffleHog, SpotBugs, SecureForge (custom-built)

Monitoring & Observability: Grafana, Loki, Uptime Kuma, Prometheus

Cloud & Infrastructure: AWS (S3, EC2), Proxmox, VMware, Traefik, Apache

Database Management: SQL Server, CloudBeaver, Automated Backup/Rollback

Operating Systems: Linux (Ubuntu, Kubuntu), Windows Server

Languages & Scripting: Python, Go, Bash, Rust, JavaScript

Networking & Admin: Reverse Proxy, SSL/TLS, RBAC, DNS Management

PROFESSIONAL EXPERIENCE

DevSecOps Engineer | TTS ME

Apr 2024 – Present

Dubai, UAE

- **Designed and built the organisation's first CI/CD pipelines from scratch** using Forgejo with Action Runners, replacing a decade of fully manual deployments. Implemented GitHub mirroring for redundancy across dedicated build and deployment servers.
- **Reduced application deployment time by 93%** (45–60 minutes to 3–15 minutes) by introducing automated Ansible playbooks and CI/CD orchestration, replacing entirely manual processes for 20+ Java/Tomcat applications.
- Containerised 15-year-old legacy applications into Docker-based high-availability architecture, reducing the Tomcat footprint to ~300 MB portable images and cutting QA and deployment time by 40%.
- **Built SecureForge**, a cross-platform security orchestration tool (~7.5 MB single binary) integrating Semgrep, Trivy, TruffleHog, and SpotBugs with configurable quality gates and multi-format reporting (JSON, HTML, PDF, SARIF).
- **Introduced the organisation's first observability stack** (Grafana + Loki) across all 20 production applications with GitOps-driven dashboards, enabling centralised log aggregation and real-time monitoring where none previously existed.
- Introduced database access governance by deploying CloudBeaver with RBAC for 16 developers, providing audited database access with execution logging, automated backup, and rollback procedures — replacing uncontrolled direct production database access.
- **Engineered Job Runner**, a custom JVM process manager that eliminated system crashes caused by 20+ concurrent batch scripts by sharing the Tomcat JVM instance, reducing memory overhead significantly.
- **Established the organisation's first version control system** by deploying self-hosted Forgejo with mirrored GitHub backup, migrating the team from unversioned manual code management to structured Git workflows.
- Built internal self-service portal for infrastructure operations, removing single-person dependencies and introducing full audit logging for all team actions.

- **Migrated organisation's virtualisation platform from nested Windows architecture** (Windows 10 → VMware → Windows VMs) to Proxmox VE with Ubuntu and AlmaLinux, establishing a modern Linux-first infrastructure that enabled full automation and containerisation capabilities.
- Lead the infrastructure team, overseeing Proxmox virtualisation, Traefik reverse proxy, network administration, and Windows/Linux server management across production environments.

Project Associate | IIT Madras — AI4Bharat

Oct 2023 – Mar 2024

Chennai, India

- Contributed to AI4Bharat, a government-funded initiative at IIT Madras focused on building AI solutions for Indian languages and rural education accessibility.
- Developed Python-based automation workflows for education content processing, video transcription pipelines, and application delivery for the Chitralkha voice/speech AI platform.
- Administered AWS S3 infrastructure for data storage and distribution, supporting cross-functional collaboration with data science and research teams.
- Built and maintained workflow infrastructure for content processing, enabling scalable delivery of educational resources to rural communities.

Freelance Security Consultant | Independent

2020 – Sep 2023

Remote

- Conducted 15+ private security assessments for companies, including web application penetration testing, vulnerability discovery, and responsible disclosure.
- Performed infrastructure security audits across web applications and APIs, identifying and documenting critical vulnerabilities with remediation guidance.
- Applied OWASP Top 10 methodologies to assess application security posture, performing network security analysis and secure architecture review.

SOC Analyst | TVS Motor Company

Oct 2019 – Feb 2020

Chennai, India

- Monitored and triaged 50+ daily security events and incidents in the Security Operations Centre, performing real-time threat analysis and alert classification.
- Analysed network traffic patterns and security logs across 100+ endpoints to identify potential threats, contributing to incident response procedures.

OPEN SOURCE & PROJECTS

SecureForge — Cross-platform security orchestrator for SAST, SCA, and secret detection. Single binary with CI/CD quality gates and multi-format reporting. [[Go](#), [Semgrep](#), [Trivy](#), [TruffleHog](#), [SpotBugs](#)]

Job Runner — JVM process manager that eliminated system crashes from concurrent batch scripts by sharing the Tomcat JVM, with legacy Java 8 compatibility. [[Java](#)]

chkfst-go — Deployment tracking tool migrated from Python to Go, replacing manual Jira-based tracking for 20+ application deployments. Tracks what was deployed, by whom, and status. [[Go](#), [Web](#)]

Obsidian Notes MCP — Open-source npm package — MCP server for Claude with 18 tools, 90%+ token reduction, and sub-second local search. Works with Claude Code and Claude Desktop. [[TypeScript](#), [Bun](#), [MCP](#)]

Personal Cloud Infrastructure — Self-managed VPS running 10+ containerised services via Coolify — Gitea, WireGuard VPN, Authentik SSO, and GitHub webhook-driven deployments. Hardened with Cloudflare DNS proxy after mitigating a real-world attack. [[Coolify](#), [Docker](#), [WireGuard](#), [Cloudflare](#)]

FlowMode — Time-tracking and analytics application providing per-task productivity insights across 10+ daily workflows. Architected in Rust as a lightweight alternative to WakaTime. [[Rust](#)]

EDUCATION

Bachelor of Technology in Computer Science

2020

Karunya Institute of Technology and Sciences