Varun Nair

DevOps | SRE | Platform Engineering
Mumbai, India | Gmail | LinkedIn | GitHub
Portfolio | HashNode Blog

PROFESSIONAL SUMMARY

MCA student at VESIT Mumbai seeking DevOps, SRE and Platform Engineering internship opportunities. Hands-on with Kubernetes (RBAC, NetworkPolicies, probes, resource limits), Terraform, AWS, Docker, GitHub Actions DevSecOps pipelines, Linux automation and observability with Prometheus and Loki. Builds AI-assisted operations tooling with human-approval safeguards.

EDUCATION

Master of Computer Applications (MCA), VESIT, Mumbai 2025 - 2027
CGPA: 8.49 (Semester 2 aggregate)

B.Sc. Information Technology, CHM College, Ulhasnagar, University of Mumbai CGPA: 8.0

TECHNICAL SKILLS

Cloud & IaC: AWS (EC2, S3, IAM least-privilege, Lambda, EventBridge, DynamoDB, CloudWatch, CloudFront, Elastic Beanstalk, Amplify, Bedrock), Terraform
Containers & Kubernetes: Docker, Docker Compose, multi-stage builds, hardened non-root images, health checks, Kubernetes (Deployments, Services, Namespaces, ConfigMaps, Secrets, ServiceAccounts, RBAC, NetworkPolicies, Probes, Resource Limits, Persistent Volumes), Kustomize, kind
CI/CD & DevSecOps: GitHub Actions, Bandit (SAST), ShellCheck, Hadolint, Bats, dependency and vulnerability scanning, Syft (SBOM), Cosign image signing, secrets management
Linux & Networking: Linux/Unix administration, Bash scripting, systemd services and timers, TCP/IP, subnetting, DNS, HTTP/HTTPS, SSH, firewalls and hardening, AES-256 (PBKDF2), SHA-256
Observability & AI/MLOps: Prometheus, Loki, LangChain, LangGraph, RAG, vector databases (pgvector), Model Context Protocol (MCP), Ollama, Amazon Bedrock, scikit-learn, model evaluation, AIOps workflows
Languages, Frameworks & Databases: Python (NumPy, SciPy, pandas, statsmodels), Bash, Go, C++ (DSA), SQL, TypeScript, JavaScript, Java, FastAPI, Django, Flask, Next.js, React, Pydantic, pytest, Ruff, Git, GitHub; PostgreSQL, pgvector, DynamoDB, SQLite
Quantitative & Math: QuantLib, Nelson-Siegel-Svensson curve fitting, PCA, DV01 and convexity, walk-forward backtesting, time series econometrics, Monte Carlo simulation, Excel/VBA

PROJECTS

PrometheusAI | AI Kubernetes Incident Response Github
- Built an approval-gated incident-response agent (Python, LangGraph, FastAPI) that investigates alerts using Prometheus, Loki, runbooks and read-only Kubernetes tools, then proposes allowlisted restart, undo and scale fixes.
- Enforced safety with a server-side dry run, human approval bound to the action hash, and a separate policy service holding the only Kubernetes write identity; applied least-privilege RBAC and NetworkPolicies; supports fake-model, Ollama and Bedrock backends; validated with pytest and scenario evaluations on a local kind cluster.

Cipher-Watch | Linux Administration and Automation Github
- Built Bash and systemd-timer automation for hardened servers: AES-256 PBKDF2 encrypted backups, automated restore testing, log rotation, operational monitoring and statistical anomaly detection.

Incident Command Center | Incident Management Platform Github
- Built an incident management platform (JavaScript, Java, Python) with real-time alerting dashboards, automated runbook execution, on-call scheduling and multi-cloud infrastructure provisioning using Terraform (HCL).

NetShield | Network Anomaly Detection Github
- Built a Flask application using CIC-IDS-2017 to analyze CSV, PCAP and PCAPNG flows with a scikit-learn Random Forest, a Flask-SocketIO live dashboard, SQLite flow history and AbuseIPDB enrichment; added dataset audits, baselines, SHAP analysis and pytest tests.

Rates Strategy Lab | Quantitative Fixed Income Research Github
- Built a Python platform (QuantLib, NumPy, pandas, statsmodels) for Treasury curve fitting (Nelson-Siegel-Svensson, bootstrapping), PCA factor modeling, bond analytics (DV01, duration, convexity), SOFR swap scenarios, walk-forward backtesting of a DV01-neutral 2s10s steepener (Deflated Sharpe) and an Excel/VBA risk dashboard.

MY LEARNINGS | Engineering Knowledge Repository Github
- Maintain a learning repository of notes, diagrams and proofs of concept across Linux, AWS, containers, CI/CD security, agentic AI workflows and C++ DSA.

Varun Portfolio | Personal DevOps Portfolio Website Github
- Built with Next.js 14, React, TypeScript and Tailwind CSS; deployed on Vercel with an emulated terminal.

ADDITIONAL INFORMATION

Writing: Hashnode. **Open To:** DevOps, SRE, Platform, DevSecOps, Cloud, AI/MLOps roles. **Interests:** Singing.