DEVOPS BEGINNER 2 DAYS

DevSecOps Essentials Fast Track (2 Days)

Build a strong foundation in fast, practical DevSecOps workflows using hands-on scanning and automated security controls. Learn how to secure containers, harden Kubernetes workloads, and introduce pipeline automation that improves security posture without slowing down delivery.

Why DevSecOps Fast Track?

Stop insecure releases early

Automated PR checks prevent vulnerabilities from reaching production.

Foundation for compliance

Repeatable controls support audits and governance needs.

Faster remediation

Teams fix issues while changes are still small and recent.

Practical security uplift

Immediate improvements without heavy process overhead.

Better delivery confidence

Secure pipelines reduce deployment risk and improve reliability.

What you'll be able to do

- ✓ Understand core DevSecOps principles and how to shift security left.
- ✓ Implement secrets handling practices using GitHub Secrets and scanning concepts.
- ✓ Run dependency scanning (SCA) and static code analysis (SAST) in CI.
- ✓ Build secure Docker images using best practices and minimal base images.
- ✓ Scan container images using Trivy and enforce vulnerability thresholds.
- ✓ Apply Kubernetes securityContext hardening and safe runtime defaults.
- ✓ Add resource requests and limits to prevent instability and OOMKilled failures.
- ✓ Scan Terraform IaC using Checkov/tfsec and fix insecure configurations.
- ✓ Deliver a capstone secure GitHub Actions pipeline that blocks insecure merges.

Who this is for

- DevOps Engineers
- Cloud Engineers
- SRE Teams
- Backend and Full Stack Developers
- Platform Engineering Teams
- Security Engineers starting with CI/CD security
- Engineering Leads who need quick secure delivery wins

Curriculum

01 DevSecOps Fundamentals + Shift-Left Security

- Core DevSecOps principles and mindset
- Shift-left security in PR and CI workflows
- Security checks as quality gates

02 Secrets Handling + Secret Scanning Concepts

- GitHub Secrets best practices
- Preventing secret leaks in code and pipelines
- Secret scanning concepts and response workflow

03 SCA + SAST in CI (Secure SDLC Checks)

- Dependency scanning (SCA) in CI
- Static code analysis (SAST) in CI
- Fail vs warn policies and PR blocking logic

04 Secure Docker Image Build Practices

- Secure Dockerfile patterns
- Minimal base images and multi-stage builds
- Safe tagging and image hygiene

05 Container Vulnerability Scanning with Trivy + Threshold Enforcement

- Trivy scan fundamentals
- Blocking builds on critical/high vulnerabilities
- Reporting and remediation workflow

06 Kubernetes Hardening (securityContext + Runtime Defaults)

- securityContext essentials (runAsNonRoot, readOnlyRootFilesystem, drop capabilities)
- Safe runtime defaults and basic hardening checklist

07 Resource Requests and Limits for Stability

- Requests vs limits
- Preventing OOMKilled failures
- Safe baseline sizing patterns

08 Terraform IaC Security Scanning (Checkov/tfsec) + Fixes

- IaC risks and common misconfigurations
- Scanning in CI and enforcing policy gates
- Fixing insecure Terraform code

09 Capstone: Secure GitHub Actions Pipeline with PR Gating

- End-to-end pipeline design
- Integrate secrets, SAST, SCA, Trivy, IaC scanning
- Block insecure merges with required checks