

DILIP KUMAR

Senior DevOps Engineer | Cloud Infrastructure Specialist | API Management Expert

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PROFESSIONAL SUMMARY

Accomplished **Senior DevOps Engineer** with **4+ years** of expertise in enterprise software development and DevOps engineering. Demonstrated proficiency in architecting CI/CD pipelines, cloud infrastructure automation, containerized deployments, and API management solutions. Successfully delivered **20+ production applications** with **99.9% uptime**, accelerated deployment processes by **80%**, and established comprehensive monitoring ecosystems.

PROFESSIONAL EXPERIENCE

Software Developer - DevOps Engineer

ZeOmega Infotech, Bangalore | Nov 2022 – Oct 2024

Enterprise WS02 API Management & DevOps Implementation

WS02 API Manager • WS02 Micro Integrator • Jenkins • Docker • Kubernetes • Puppet • Java

- Engineered robust CI/CD pipeline for security scanning utilizing the Dependency Check tool for JAR files and vulnerability detection
- Devised automated workflows to transfer artifacts, orchestrate environments, and deploy WS02 API Manager via Puppet
- Spearheaded migration of 50+ WS02 API Manager and Micro Integrator instances from Windows to Kubernetes platform
- Orchestrated WS02 API Manager security patch updates leveraging built-in executable tools with zero downtime
- Mastered API lifecycle operations including creation, publication, subscription, and consumption with OAuth2 authentication flows
- Constructed comprehensive API security framework encompassing rate limiting, key management, and secure deployment
- Streamlined environment provisioning and configuration management slashing manual setup time by 65%
- Formulated monitoring and alerting systems that yielded 99.8% API availability and enhanced performance

Senior DevOps Engineer (Freelance/Contract)

Independent Projects | 2024 - Present

Enterprise ReactJS CI/CD Pipeline with Advanced Security

Jenkins • Docker • AWS EC2 • SonarQube • OWASP • Trivy • Prometheus • Grafana

- Architected enterprise-grade DevSecOps pipeline for ReactJS applications supporting 5,000+ concurrent users with automated testing
- Crafted multi-branch CI/CD strategy featuring automated builds for development/production environments via Jenkins Multibranch Pipelines
- Embedded advanced security scanning (OWASP, Trivy) diminishing security incidents by 95% and thwarting 50+ vulnerabilities
- Deployed comprehensive monitoring solution with Prometheus and Grafana delivering 99.9% application uptime
- Configured Docker Hub integration with segregated repositories for development and production environments
- Accelerated deployment processes slashing deployment time from 2 hours to 15 minutes through complete automation

Kubernetes-Native Application Deployment on AWS EKS

AWS EKS • Terraform • Kubernetes • Jenkins • Prometheus • Grafana • Fluent Bit

- Designed and provisioned AWS infrastructure leveraging Terraform (VPC, subnets, security groups, EKS cluster) with GitOps workflow
- Executed end-to-end CI/CD featuring automated Docker builds and Kubernetes deployments via Jenkins and Helm charts
- Coordinated containerized applications with auto-scaling, load balancing, and health monitoring ensuring high availability
- Instituted comprehensive observability utilizing Prometheus, Grafana, and Fluent Bit for centralized logging
- Realized 40% cost optimization through right-sizing, auto-scaling configurations, and strategic resource management

AWS-Native CI/CD Pipeline with Advanced Automation

AWS CodePipeline • CodeBuild • CodeDeploy • ECR • EKS • CloudWatch • SNS

- Constructed AWS-native CI/CD solution utilizing CodePipeline, CodeBuild, and CodeDeploy for frictionless application delivery
- Devised automated Docker image management with ECR integration and sophisticated tagging strategies
- Pioneered vulnerability scanning pipeline leveraging Trivy with automated reporting and notification systems
- Formulated automated deployment workflows featuring rollback capabilities and zero-downtime deployments
- Attained 90% reduction in manual deployment tasks through comprehensive automation and GitOps methodologies

KEY PROJECTS IMPACT

Enterprise API Management Migration

Executed migration of 50+ enterprise APIs to Kubernetes yielding 60% faster deployments and 99.8% availability. Engineered comprehensive API security framework.

Multi-Environment DevSecOps Pipeline

Crafted branch-based deployment strategy resulting in 90% fewer vulnerabilities and 85% improvement in code quality. Incorporated SonarQube for code analysis.

Cloud-Native Monitoring

Established monitoring infrastructure achieving 99.9% coverage and 60% decreased MTTR. Integrated Blackbox Exporter for external service monitoring.

Infrastructure as Code

Orchestrated AWS infrastructure provisioning delivering 85% faster setup and 100% consistency. Adopted version-controlled infrastructure with GitOps methodologies.

Container Orchestration

Administered 10+ microservices on Kubernetes with horizontal pod autoscaling diminishing resource costs by 35%. Constructed centralized logging for 1000+ daily events.

CI/CD Automation

Facilitated 100+ automated deployments with 99.5% success rate. Devised automated rollback mechanisms decreasing incident response time by 70%.

TECHNICAL SKILLS

Cloud Platforms

AWS (EC2, EKS, ECR, CodePipeline, CodeBuild, CodeDeploy, CloudWatch, SNS, VPC, IAM)

Containers & Orchestration

Docker, Kubernetes, Helm, Rancher, Docker Compose

CI/CD & DevOps

Jenkins, AWS CodePipeline, GitHub Actions, GitLab CI, ArgoCD

Infrastructure as Code

Terraform, CloudFormation, Ansible, Puppet

Monitoring & Observability

Prometheus, Grafana, AlertManager, Fluent Bit, Grafana Loki, CloudWatch

Security & Compliance

SonarQube, OWASP Dependency-Check, Trivy, Snyk, DevSecOps

API Management

WS02 API Manager, WS02 Micro Integrator, REST APIs, API Security, Rate Limiting

Programming & Scripting

Python, Java, Bash, SQL, YAML, JSON, ReactJS, JavaScript, HTML/CSS, Bootstrap

Database Technologies

MySQL, PostgreSQL, MongoDB, Redis, SQL Server

Version Control & Collaboration

Git, GitHub, GitLab, Bitbucket, JIRA, Confluence, Slack

Operating Systems

Linux (Ubuntu, CentOS, RHEL), Windows Server, macOS

Networking & Security

VPC, Subnets, Security Groups, Load Balancers, DNS, SSL/TLS, Firewalls

EDUCATION

Master of Computer Application (MCA)

Madurai Kamaraj University

Aug 2022 – May 2024 | CGPA: 7.2/10

CERTIFICATIONS

- AWS Solutions Architect (In Progress)
- Kubernetes Administrator (In Progress)
- Jenkins Certified Engineer
- WS02 API Manager Developer
- Docker Associate (Planned)

ADDITIONAL SKILLS

- DevOps Methodologies:** CI/CD, Infrastructure as Code, GitOps, Microservices Architecture
- Cloud System Design:** High Availability, Horizontal Scalability, Disaster Recovery Planning
- Performance Enhancement:** Load Testing, Strategic Caching, CDN Integration
- Agile Frameworks:** Scrum, Kanban, Sprint Planning, Retrospectives
- Troubleshooting:** Root Cause Analysis, Incident Response, System Debugging
- Knowledge Management:** Technical Documentation, Process Workflows, Knowledge Transfer

LIVE PORTFOLIO DEMONSTRATIONS

- ReactJS CI/CD Pipeline:** <http://18.60.226.5/>
- EKS Kubernetes App:** <http://a663570b339364482a86a9e6f3445b69-1151892002.us-west-2.elb.amazonaws.com/>
- AWS Native Pipeline:** <http://abb59c4b452064c768a9c0975c9ced80-1446271263.us-east-1.elb.amazonaws.com>
- Prometheus Monitoring:** <http://18.60.226.5:9090/>
- Grafana Dashboards:** <http://18.60.226.5:3000>
- SonarQube Quality:** <http://18.61.24.207:9000/projects>

KEY ACHIEVEMENTS

- Cost Optimization:** Slashed AWS expenses by 40% through strategic right-sizing and auto-scaling
- Security Enhancement:** Diminished security incidents by 95% via automated vulnerability scanning
- Performance Acceleration:** Boosted deployment velocity by 80% (from 2 hours to 15 minutes)
- System Reliability:** Ensured 99.9% uptime across all production applications
- Process Automation:** Eliminated 90% of manual tasks through sophisticated CI/CD pipelines
- Migration Excellence:** Transitioned 50+ APIs to cloud-native architecture with zero data loss