

PrasannaKumar Singanamalla

Portfolio: <https://www.nextgendev.site/>
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PROFESSIONAL SUMMARY

A result-driven adoptive learner and DevOps Engineer with 2+ years of experience automating infrastructure management and optimizing mission-critical deployments across production servers. Adept at designing and implementing robust CI/CD pipelines using Jenkins, integrating security tools, and ensuring seamless application delivery. Proficient in crafting highly optimized Docker images for efficient application deployment and managing microservices architecture at scale in Kubernetes clusters on AWS. Passionate about enhancing operational efficiency and driving innovation through automation and modern DevOps practices.

SKILLS SUMMARY

- **Languages & Operating Systems:** Python, SQL, Linux, Windows, Shell, YAML
- **Continuous Integration/Delivery:** Jenkins, GitLab CI, GitHub Actions, Argo-CD
- **Cloud & Containerization:** AWS, Azure (Basics), Docker, Kubernetes
- **Artifacts, & Security:** Nexus, SonarQube, Trivy, OWASP
- **Infrastructure as Code:** Terraform, Packer

WORK EXPERIENCE

INFOSYS | Senior System Associate

January 2023- Present

Project: Deployment & Management of PPM Application

- o Automated AWS infrastructure provisioning using Terraform, reducing deployment time by 40% while enforcing Infrastructure as Code (IaC) standards across EC2, S3, and EKS resources.
- o Reduced AWS operational costs by implementing auto-scaling strategies, S3 lifecycle policies, and Spot Instances utilization across EC2 and Kubernetes environments.
- o Optimized CI/CD pipelines with Jenkins, integrating Docker, Maven, SonarQube, and Trivy to improve deployment speed by 30% while ensuring code quality and security compliance.
- o Implemented Git Ops workflows using Argo CD, achieving a 50% reduction in deployment time by automating Kubernetes cluster management and enabling seamless Git-to-cluster synchronization.
- o Enhanced developer productivity by 25% by configuring automated Jenkins triggers on code commits, eliminating manual build processes and reducing deployment bottlenecks.
- o Strengthened Kubernetes security by implementing RBAC controls and managing Config Maps/Secrets, enabling secure multi-tenant deployments while maintaining compliance standards.

PROJECTS

EKS Cluster Automation and Observability Framework | [LINK](#)

- o Automated provisioning of Amazon EKS clusters using Terraform with remote state management (S3 + DynamoDB) for consistent and collaborative infrastructure deployments.
- o Implemented Git Ops-based continuous deployment using Argo CD, improving release velocity and maintaining declarative configuration control.
- o Deployed a full observability stack with Prometheus and Grafana, enabling real-time monitoring, email alerting, and application-level metric collection.
- o Secured multi-team access with fine-grained RBAC policies and pod identity integration for EBS CSI driver, ensuring isolated and least-privilege access.

Secure Cloud Infrastructure Automation | [LINK](#)

- o Designed and implemented a secure three-tier VPC architecture with Public, Private, and Secure subnets, ensuring isolation of sensitive resources and controlled network access across application layers.
- o Automated infrastructure provisioning using Terraform modules, enabling reproducible, scalable deployments with environment-specific variables and remote state management via S3 and DynamoDB.
- o Created golden AMIs using Packer with Jenkins triggers, reducing provisioning time and ensuring consistent, pre-secured application environments across Auto Scaling Groups.
- o Configured a highly available setup with multi-AZ Load Balancer, fault-tolerant ASG, and secure RDS deployment, enhancing reliability and performance of the deployed Java application.

CERTIFICATES

- o [AWS Certified Cloud Practitioner](#)
- o [AWS Certified Solutions Architect-Associate](#)
- o [GitHub Foundations Certification](#)
- o [HashiCorp Certified Terraform Associate](#)

EDUCATIONAL QUALIFICATION

Bachelors in Computer Application
Acharya Nagarjuna university

August 2019 – July 2022