

Prathik Marneni

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[LinkedIn](#) | [Portfolio](#)

Professional Summary

Senior DevOps Engineer with 5+ years of experience architecting scalable cloud infrastructure for high-traffic applications. Expert in Kubernetes orchestration, Infrastructure as Code, and zero-downtime deployment strategies. Delivered measurable business impact through 85% faster deployment cycles, Significant cost optimization, and 99.9% system reliability. Proven ability to scale distributed systems handling millions of requests while maintaining security and compliance standards.

Technical Skills

Cloud Platforms: AWS, Azure, GCP (basic exposure)

Infrastructure as Code: Terraform, CloudFormation, ARM Templates, Ansible, Pulumi

Containers & Orchestration: Kubernetes, Docker, Helm, Istio, Container Registries, Auto-scaling

CI/CD & GitOps: Jenkins, GitHub Actions, Azure DevOps, GitLab CI, ArgoCD, Flux

Monitoring & Observability: Datadog, Splunk, Prometheus, Grafana, ELK Stack, New Relic, CloudWatch

Security & Compliance: AWS Config, Azure Security Center, IAM, HashiCorp Vault, Policy as Code

Programming & Scripting: Python, Go, PowerShell, Bash, Linux CLI, YAML, JSON, SQL

Databases: MySQL, PostgreSQL, SQL Server, MongoDB, Redis, DynamoDB

Service Mesh & Networking: Istio, Envoy, AWS VPC, Azure VNET, Load Balancers

Operating Systems: Linux, Windows Server

AI/ML Operations: MLflow, DVC, GPU Infrastructure, Model Deployment, Machine Learning Pipelines, Container-based ML Services

Professional Experience

Global Payments

Senior DevOps Engineer

Atlanta, GA

Jan 2022 – Present

- Architected and optimized **CI/CD pipelines** using for 15+ microservices processing high volume financial transactions, reducing deployment time from 2 hours to 20 minutes while maintaining **zero-downtime deployments**
- Designed and managed multi-region **AWS infrastructure** using **Terraform**, supporting 99.9% uptime SLA for mission-critical payment processing systems
- Built and scaled **Kubernetes clusters** on **EKS** with advanced auto-scaling policies, handling 10M+ API requests daily with sub-100ms latency
- Implemented comprehensive security framework using **AWS Config** and custom policies, achieving **SOC 2 Type II** certification and maintaining **PCI DSS** compliance
- Engineered centralized secrets management solution using **HashiCorp Vault** and **AWS Secrets Manager** with automated rotation, eliminating security vulnerabilities across 50+ applications
- Developed advanced monitoring and alerting systems using **Datadog** and **Prometheus**, reducing mean time to resolution by 60% and preventing 12+ production incidents through proactive detection
- Led cloud cost optimization initiative through intelligent resource scheduling and rightsizing, achieving **significant cost reduction** while improving performance by 25%
- Designed **disaster recovery** architecture with automated failover capabilities, ensuring RPO of 15 minutes and RTO of 30 minutes across multiple availability zones
- Built **ML infrastructure** on GPU-optimized instances with auto-scaling, supporting real-time fraud detection models processing 100K+ transactions per second
- Integrated **MLOps pipelines** using **MLflow** and **Kubeflow**, enabling automated model deployment and A/B testing for machine learning teams

- Established security-first CI/CD practices with automated vulnerability scanning, code quality gates, and compliance checks, reducing security issues by 90%
- Containerized microservices using **Docker** and deployed to **EKS** clusters with Helm, improving portability and deployment reliability
- Mentored junior engineers and collaborated with cross-functional teams using **Agile methodologies**, driving infrastructure automation initiatives that improved developer productivity by 40%

TEKWORKS DIGITAL PVT LTD

DevOps Engineer

Hyderabad, India
Jul 2019 – Jul 2021

- Architected and managed **Azure cloud infrastructure** for 20+ enterprise applications serving 100K+ users, utilizing **Infrastructure as Code** principles with **Terraform** and **ARM templates**
- Designed robust **Azure DevOps pipelines** for Java and .NET applications with automated testing suites, **blue-green deployments**, and feature flag management
- Led complex database migration projects from on-premises **SQL Server** to **Azure SQL Database**, achieving 99.9% data integrity and minimal downtime through careful planning and execution
- Implemented and optimized **AKS clusters** with advanced networking using **Istio service mesh**, supporting microservices architecture with enhanced security and observability
- Developed enterprise identity management solutions integrating **Active Directory** and **Office 365**, serving 5000+ users across multiple tenants
- Implemented security hardening using **CIS benchmarks** and automated compliance monitoring, achieving 95% security score improvement across all environments
- Created comprehensive automation framework using **PowerShell** and **Python**, reducing manual infrastructure tasks by 80% and improving deployment consistency
- Built reusable **Terraform modules** and implemented **VM Scale Sets** with predictive auto-scaling, ensuring high availability and optimal resource utilization
- Established comprehensive monitoring stack using **Azure Monitor** and **Application Insights**, providing real-time visibility into application performance and user experience
- Developed technical documentation and architectural decision records, facilitating knowledge transfer and ensuring compliance with enterprise standards

Education

Auburn University

Master's Degree in Computer Science

Montgomery, AL
2022

GITAM University

Bachelor's Degree in Electronics & Communication Engineering

Visakhapatnam, India
2020

Certifications

- Microsoft Certified: Azure DevOps Engineer Expert
- Microsoft Certified: Azure Administrator Associate
- AWS Certified Solutions Architect – Associate