

Amal Bose Mathew

Senior DevOps Engineer

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Visa Status: **Employment Visa (UAE)**

Professional Summary

Results-driven DevOps/DevSecOps and Cloud professional with more than 5 years of experience architecting scalable infrastructure, automating CI/CD pipelines, and embedding security across the software development lifecycle. Adept at implementing DevSecOps strategies, optimizing cloud costs, and modernizing infrastructure using Terraform, Kubernetes, and AWS services. Seeking to leverage my skills to lead infrastructure transformations and drive operational excellence in an enterprise environment.

Technical Skills

- Cloud Platforms: AWS (Primary), Azure (Basic)
- Infrastructure as Code: Terraform, CloudFormation, Ansible
- CI/CD & GitOps: GitHub Actions, AWS CodePipeline, Jenkins, Argo CD, Helm
- Containers & Orchestration: Docker, ECS, Kubernetes (EKS)
- Security: SAST, SCA, DAST, OWASP ZAP, Trivy, Snyk, Checkov, SonarQube
- Monitoring & Logging: Prometheus, Grafana, Zabbix, ELK, CloudWatch
- Scripting: Bash, Python
- Databases: PostgreSQL, MySQL, MariaDB, DynamoDB, MongoDB
- Operating Systems: Linux (RedHat, Ubuntu, CentOS), Windows
- Version Control: GitHub, Bitbucket, GitLab, AWS CodeCommit

Education

B. Tech Computer Science and Engineering (2013 - 2018), Mahatama Gandhi University, India.

Professional Experience

Senior DevOps Engineer | Primeweb Technologies, Dubai, UAE.

April 2025 - Present

- Architected and implemented cloud-native infrastructure on **AWS** using **Terraform, Docker, EKS, Jenkins, GitHub Actions**, and fully automated **CI/CD** pipelines.
- Implemented high-availability and disaster recovery architecture for **MySQL, PostgreSQL**, and **AWS ElastiCache (Redis)** across multiple environments, fully provisioned with CloudWatch monitoring and IAM-based security.
- Orchestrated the design and implementation of cloud-based solutions on AWS, customizing architectures to meet client requirements while aligning with industry best practices and business objectives.
- Collaborated with cross-functional teams to enhance system reliability and refine deployment pipelines, driving ongoing improvements in operational efficiency.
- Engineered automation solutions using Python (AWS Lambda) and Bash for large-scale systems, pipelines, and on-server operations, enhancing reliability and reducing manual intervention.
- Reduced vulnerabilities by 90% by integrating **SAST, DAST and SonarQube** into CI/CD.
- Built an observability platform using **Grafana, Prometheus** for proactive monitoring.

- Collaborated closely with development, QA, and security teams to align infrastructure changes with application requirements, reducing misconfigurations and deployment issues.
- Automated **OpenSearch cluster** provisioning, scaling, and monitoring.
- Experienced in cloud security best practices, **IAM policies**, and threat scanning.
- Managed cloud infrastructure costs on AWS, implementing optimization techniques to reduce expenses while maintaining operational efficiency and meeting **budget targets**.
- Proactively conducted infrastructure monitoring using CloudWatch and implemented logging solutions with OpenSearch, enhancing system observability and incident response efficiency.
- Set up and managed centralised logging with the **ELK stack (Elasticsearch, Logstash, Kibana)** to enhance observability and accelerate incident response.
- Mentored juniors and led KT sessions, improving team performance and onboarding efficiency.
- Built a **GitOps-driven infrastructure and deployment pipeline**, using GitHub and Argo CD, improving deployment consistency and traceability.
- Enhanced security by implementing **OIDC-based authentication** for Amazon Web Services, removing dependency on long-lived credentials.
- Improved application scalability and performance by configuring **Kubernetes HPA**, enabling automatic workload scaling.
- Strengthened system observability by integrating Amazon CloudWatch alarms with **SNS alerts**, reducing incident response time.
- Modernized infrastructure by migrating Terraform backend to **S3 with improved state locking**, ensuring reliability and team collaboration.
- Implemented **end-to-end secrets management** using IRSA and AWS Secrets Manager, securing sensitive data across services.

Senior Platform Engineer | Quantiphi, Trivandrum, India.

July 2021 – January 2025

- Architected end-to-end, multi-environment DevOps workflows with scalable, secure, and automated infrastructure on AWS.
- Designed and implemented 50+ cross-account CI/CD pipelines utilizing AWS CodePipeline, CodeCommit, CodeBuild, and CodeDeploy, streamlining deployment processes across multiple AWS environments.
- Developed reusable **CloudFormation** templates for provisioning complex AWS infrastructures, leveraging parameter externalization strategies and decoupled architecture for scalability and modularity.
- Containerized/Dockerized applications using Docker and integrated Docker workflows into CI/CD pipelines built with Codepipelines, GitHub Actions, GitLab CI/CD and Jenkins for automated builds, testing, and deployments.
- Configured and deployed **AWS Control Tower**, managing Organizational Units (OUs) and creating custom Service Control Policies (SCPs) and IAM permission sets, ensuring compliance and security best practice with providing least privilege access.
- Developed and deployed **blue-green deployment** strategies integrated with security checks.
- Managed Kubernetes workloads end-to-end using deployments, services, ingress, config maps, and secrets for secure, scalable delivery.
- Collaborated with cross-functional teams to enhance system reliability and refine deployment pipelines, driving ongoing improvements in operational efficiency.
- Spearheaded the adoption of Infrastructure as Code (IaC) with Terraform and AWS CloudFormation, automating infrastructure management and ensuring consistency across cloud environments.
- Directed AWS billing and cost optimization initiatives, utilizing AWS Cost Explorer to identify and implement cost-saving strategies, resulting in a 20% reduction in cloud expenses.

- Led the deployment of Microservices using a monorepo structure, integrating blue-green deployment strategies to minimize downtime during updates and improve release management.
- Instituted robust AWS IAM and SSO access controls, ensuring compliance with security standards and improving incident response through real-time monitoring and alerting systems.
- Drove continuous improvement efforts by evaluating and refining cloud architecture and deployment processes, maintaining high availability and performance across the system.
- Managed and optimized AWS networking architecture, including multi-tier/multi-AZ VPC designs, centralized ingress/egress routing, and Transit Gateway implementations for enhanced performance and scalability.
- Successfully executed Blue-Green deployment strategies for ECS and AWS Lambda, minimizing service downtime and enabling seamless rollbacks to previous versions during deployment errors.

System Administrator | Inavan Technologies, Ernakulam, India.

November 2019 - March 2021

- Delivered AWS-based Linux infrastructure support and automated configuration and patching with Ansible across multi-node EC2 setups.
- Spearheaded the adoption of Infrastructure as Code (IaC) with Terraform and AWS CloudFormation, automating infrastructure management and ensuring consistency across cloud environments.
- Directed AWS billing and cost optimization initiatives, utilizing AWS Cost Explorer to identify and implement cost-saving strategies, resulting in a 20% reduction in cloud expenses.
- Deployed monitoring using Zabbix/Nagios for 100+ shared servers.
- Improved system uptime and reliability by automating incident response and implementing robust monitoring and alerting practices.
- Managed and optimized virtualized infrastructure, employing OpenVZ and KVM technologies to improve server performance and reduce operational costs by 15%.
- Provided comprehensive support through WHMCS for client management and ticket resolution, resulting in a 25% reduction in response times and a 15% increase in customer satisfaction.
- Automated AWS cloud operations using Ansible and Terraform, improving deployment efficiency and reducing manual intervention.

Intern System Engineer | Netrix Worldwide, Ernakulam, India.

April 2019 - August 2019

- Automated infrastructure for staging environments and hardened servers with backup policies.
- Provided 24/7 support through WHMCS, managing client inquiries and ticketing systems to ensure seamless operations and high levels of customer satisfaction.
- Monitored and managed nodes and virtual machines utilizing OpenVZ and KVM technologies, optimizing resource allocation for improved server performance.
- Configured and managed AWS services, including EC2, Route 53, and EBS, ensuring adherence to SLA metrics and operational efficiency.
- Gained hands-on experience in Linux system administration, effectively troubleshooting issues related to Cpanel, Exim mail servers, and CSF firewalls.

Certifications

- AWS Certified Solutions Architect – Associate
 - AWS Certified SysOps Administrator - Associate
 - Red Hat Certified System Administrator (RHCSA)
 - Red Hat Certified Engineer (RHCE)
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