Akash Pawar

Summary

Cloud and Site Reliability Engineer with over two years of experience in designing scalable serverless architectures, optimizing backend systems, and automating kubernetes infrastructure. Skilled in developing cloud applications for performance, cost, and scalability.

Certifications

Certified Kubernetes Administrator — AWS Solutions Architect — AWS Certified Developer

Experience

DevOps Engineer

Dec 2022 - Current

 $Trames\ Private\ Limited$

India, Remote

Cloud Migration & Optimization

- Led major **cloud migration** projects, migrating workloads from **AWS to Azure**, optimizing performance & reducing infrastructure complexity.
- Implemented cost optimization strategies using Spot Instances, autoscaling, reserved instances, and resource right-sizing, achieving a 35% cost reduction (\$5,500/month) without compromising scalability or reliability.
- Implemented cost-saving automation workflows using Lambda, EventBridge, and API Gateway for on-demand VM management, DynamoDB scaling & Slack-integrated VM control, optimizing resource usage & operational efficiency.
- Migrated production databases from aws to **Azure PostgreSQL Servers**, ensuring high availability, data integrity, and seamless data replication.

Serverless & Automation

- Architected and deployed multiple serverless backend architectures using AWS API Gateway, Lambda, S3, SQS, & AWS SAM, including patterns such as API Gateway →Lambda and API Gateway →S3 with event notifications to SQS for downstream processing.
- Utilized **Terraform and AWS CDK** to automate infrastructure provisioning and ensuring time efficient and consistent deployments.
- Built a custom monitoring tool using **Python** for VM metrics and process tracking, deploying it via **Ansible**, improving observability and operational efficiency.

CI/CD & Deployment

- Configured **GitHub Actions**, **AWS CodePipeline**, and **Azure DevOps** to streamline deployments, reducing deploy time and minimizing potential human errors.
- Implemented **self-hosted GitHub Actions runners** for deploying to private VMs in Azure, optimizing deployment & security of application workflow.
- Utilized **NGINX** as a reverse proxy for application traffic management, optimizing request routing and enhancing its performance.

Security & Compliance

- Enforced IAM policies, RBAC, & AWS Identity Center (SSO) to standardize access control across multiple AWS accounts and Azure, enhancing security and streamlining user management.
- Implemented AWS GuardDuty for proactive threat detection and security monitoring.
- Configured VNet Peering and VPNs to secure cross-cloud and cross-VNet communication, ensuring secure access to internal resources.

Cloud & Networking Expertise

- Designed and implemented multi-cloud networking with AWS VPC, Azure VNet Peering, NACLs & Security Groups, enhancing cross-cloud connectivity and security.
- Worked extensively with core AWS services such as EC2, DynamoDB, ECS, EKS IAM, S3, Lambda, and Azure services including App Service, AKS, Azure VM.

Observability & Monitoring

• Utilized AWS CloudWatch for log management, metrics, and alarm setup, transitioning to Logz.io for advanced log analysis and troubleshooting.

Hands-On Learning

- Skills: Prometheus, Grafana, OpenSearch, ArgoCD, Google Cloud (Ongoing self-learning)
- Self-learned GitOps with ArgoCD, automating Helm-based deployments and reducing downtime.
- Implemented an **observability stack** using **Prometheus, Grafana, OpenSearch**, improving monitoring and log analysis.
- Learning **Locust** for application load testing to evaluate infrastructure resource utilization and performance under varying traffic conditions.

Skills and Expertise

- Cloud Platforms: AWS, Azure, Kubernetes (EKS, AKS), Docker, Helm, OpenVPN, VPC/VNet, Security Groups, NACLs
- Infrastructure as Code: Terraform, AWS CDK
- CI/CD GitOps: GitHub Actions, AWS CodePipeline, Azure DevOps, ArgoCD, Azure Pipeline
- Programming Scripting: Python, Node.js, Express, React.js/Next.js, JavaScript/TypeScript
- Monitoring Observability: CloudWatch, Logzio, Prometheus, Grafana, OpenSearch
- Databases Messaging: PostgreSQL, MongoDB, Redis
- Networking Security: VPN, Load Balancers (ALB, NLB), IAM Policies

Education

MITAOE 2019 - 2023

B. Tech in ENTC with specialization in cloud computing

Pune, India