RISHI KATHAL

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Summary

Results-driven DevOps Engineer with 4+ years of experience in automating cloud infrastructure, CI/CD pipelines, and Kubernetes-based deployments. Proven expertise in AWS, Terraform, Kubernetes, scripting/programming, GitOps, and observability tools. Successfully optimized cloud infrastructure to reduce deployment failures and cloud costs. Passionate about improving development workflows, security, and scalability.

Work Experience

Opstree Solutions Pvt. Ltd   **Noida, Uttar Pradesh IN**

Sr. DevOps Specialist   August 2023 – Present

- Managed AWS infrastructure across multi-account environments, including EC2, ECR, EKS, S3, VPC, VPN, Lambda, API Gateway, DynamoDB, IAM, Route 53, RDS, CloudFront, CloudWatch, Secret Manager, Cert manager, KMS, Eventbridge, SNS, SQS, WAF, SCP, Budgets and Transit Gateway.
- Designed and implemented a multi-account AWS structure using Terraform, Terragrunt, and GitHub Actions, enabling scalable, secure, and automated cloud resource provisioning.
- Implemented AWS IAM & SSO integration with Azure AD, improving security and reducing access-related incidents by 60%.
- Managed multiple microservice codes, pipelines and IaC content using Github. This includes admin, github action.
- Managing third-party access to multiple AWS accounts using IAM as a code using Terraform, Terragrunt, and Github Action.
- Designed and deployed EKS clusters, managing components such as OIDC authentication, AWS Auth, logging, add-ons, and NodeGroups to enhance cluster efficiency and performance.
- Created and managed third-party applications in Kubernetes, including Prometheus Stack, Grafana Loki, Istio, Cert-Manager, Traefik Ingress Controller, ALB Controller, External Secrets (AWS Secrets Manager & Parameter Store), and Node Termination Handler.
- Automated microservice deployments on Kubernetes using GitHub Actions & GitHub Runners, reducing deployment failures by 40% and accelerating release cycles by 50%.
- Set up centralized monitoring with Prometheus Stack, configuring Service Monitors, Alertmanager, and Grafana SSO integration, ensuring real-time visibility and alerting for critical infrastructure.
- Created custom helm charts for application, managing charts in S3 Bucket [for central repository] and its version [for rollback] and created its fully functional CD using github actions.
- Developed automation scripts in Python & Bash for cloud resource provisioning, system monitoring, and operational efficiencies.
- Created and configured custom Terraform modules for AWS resources and managed multi-env & multi-account structures using Terragrunt.
- Configured and managed Karpenter for dynamic Kubernetes autoscaling, significantly optimizing node provisioning time and lowering compute costs by 30%.
- Collaborated with cross-functional teams, including Data Warehouse and Data Pipeline teams, to support integration and infrastructure needs.
- Maintained detailed technical documentation using GitHub README, Wiki, and Confluence, ensuring streamlined knowledge sharing for POCs, RCAs, and reference architectures.
- Integrated SigNoz as a distributed tracing and observability platform to replace legacy monitoring , improving trace analytics and reducing debugging time by 40%.

Capgemini   **Pune, Maharashtra IN**

Sr. Analyst   April 2021 - August 2023

- Provisioned AWS Services like EC2, EBS Encryption, Image Creation, S3, Route53, Inbound/Outbound Rules, DNS, ECS, EFS, CloudWatch, IAM, VPC, Auto-Scaling, NAT & Security Groups.
- Automated infrastructure as code (IaC) using Terraform & Ansible, ensuring repeatable deployments.
- Managed Kubernetes deployments, including namespaces, secrets, and ingress controllers.
- Created custom IAM policies & roles for fine-grained access control across AWS environments..
- Worked with cross-functional teams to troubleshoot and resolve production issues. Ticket handling in Service now ticketing tool for the issues and working for their RCA and resolution.

Skills

- **Cloud & Infrastructure :** AWS (EC2, ECR, EKS, S3, VPC, VPN, Lambda, API Gateway, DynamoDB, IAM, Route 53, RDS, CloudFront, CloudWatch, Secret Manager, Cert manager, KMS, Eventbridge, SNS, SQS, WAF, SCP, Budgets and Transit Gateway.), Azure AD
- **CI/CD & Automation :** Terraform, Terragrunt, GitHub Actions, Jenkins, Ansible, Git, GitHub
- **Containers & Orchestration :** Docker, Kubernetes, Helm, ArgoCD, Karpenter, Knative, Traefik, Istio
- **Monitoring & Security :** Prometheus, Grafana, Loki, SigNoz, SSO, AWS IAM, OIDC, SAML, Elastic Stack, Netbird, wazuh
- **Programming & Scripting :** Python, Bash, Boto3, Flask, APIs
- **Databases & Messaging :** PostgreSQL, MongoDB, Redis, RabbitMQ

Education

Sagar institute of research and technology   **Bhopal, Madhya Pradesh IN**

Bachelor of Engineering in Computer Science   June 2016 - September 2020

St. Xavier's Sr. Sec. Co-Ed School   **Bhopal, Madhya Pradesh IN**

Higher Secondary (12th)   April 2015 - April 2016

Personal Projects

Python-Project-Url-Shortner: The Python-Based URL Shortener is a high-performance web application built using Flask, Redis, and PostgreSQL, designed to provide efficient and scalable URL shortening services. It features a user-friendly interface with real-time analytics for tracking URL usage and includes robust authentication mechanisms for enhanced security. The application is deployed on Kubernetes ensuring high availability, auto-scaling, and fault tolerance. Additionally, it integrates Prometheus and Grafana for monitoring. To enhance performance, caching mechanisms and load balancing were implemented, resulting in a 30% improvement in API response times.

Certificates

Microsoft Certified Azure Fundamentals

Fundamentals of python

Aws Cloud Practitioner Associate