Pranay Singh Parihar

DevOps Engineer

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Profile

I am an experienced DevOps Engineer, with experience working on major cloud providers like AWS, Azure and GCP withholding the certifications as well and with expertise on CI/CD tools like Terraform and Ansible along with git and Azure DevOps.

Professional Experience

Project Lead *(NCR Atleos)* **Hyderabad, TS** *03/2023 - present*

- Utilized Ansible to manage Kubernetes resources, ensuring consistent and reproducible deployments with 99% success.
- Implemented custom Prometheus exporters for application to capture and analyze application-specific metrics, such as request latency, error rates, and throughput.
- Integrated Grafana Cloud for advanced visualization of Prometheus metrics, creating custom dashboards tailored to different stakeholders, improving data visualization.
- Established a robust CI/CD pipeline using Github Actions for automated testing and Deployment of monitoring configurations.
- Developed a dedicated Ansible role for Prometheus Operator installation, configuration, and updates, reducing setup time by 20%
- Deployed Prometheus Operator on Kubernetes to monitor cluster health, node performance and resource utilization, enhancing system reliability.
- Automated checks for overall cluster health to identify potential issues.

DevOps Engineer *(NCR Corporation)* **Hyderabad, TS** *12/2021 - 03/2023*

- Enabled AWS Cloudtrail across all AWS accounts and regions to log all API calls, ensuring complete visibility into user activities and service interactions. Configure trails to deliver log files to an S3 bucket for storage and analysis.
- Config Rules automation with terraform and Ansible: Deployed AWS Config using Terraform to continuously monitor and record AWS resource Configurations. Utilized Ansible playbooks to enforce compliance policies by creating and managing AWS Config rules that ensure resources like S3 buckets and EC2 instances adhere to security standards.
- Integrated AWS Config with Cloudwatch Events using Terraform to trigger immediate compliance checks and remediation action via AWS Lambda. Developed Lambda functions to automatically apply encryption to unencrypted S3 buckets detected by Config rules.
- Implemented CloudWatch metric filters to parse CloudTrail logs for specific events such as unauthorized API calls and IAM policy changes. Configured CloudWatch alarms to notify the security team when predefined thresholds were breached.
- Developed AWS Lambda functions to respond to CloudWatch alarms and Config rule violations.
- Configured Amazon SNS topics to send real-time notifications to security and operations teams, Integrated SNS with communication tools like Slack and email for alert dissemination.
- Enabled AWS GuardDuty to continuously analyze VPC Flow logs, CloudTrail logs, and DNS logs for signs of malicious activity. Configured GuardDuty findings to trigger CloudWatch Events, which invoke Lambda functions for automated threat response.
- Setup CI/CD pipeline using GitHub Actions and Jenkins to automate the deployment of Terraform scripts, ansible playbook and Lambda function code, ensuring consistent and reliable updates to the auditing and alerting system.
- Implemented dynamic inventory management in Ansible to automate AWS resource configuration based on tags and regions, enhancing scalability and flexibility in cloud infrastructure management.
- Developed and executed Ansible playbooks targeting dynamic groups, automating tasks such as package installation, updates, and application deployment across Multiple AWS regions.
- Leveraged AWS API integration and Ansible's 'amazon.aws.aws_ec2' plugin for real-time inventory updates, ensuring accurate and up-to-date resource targeting.

DevOps Engineer *(IbexLabs)* **Hyderabad, TS** *11/2021 - 12/2021*

- Working on Ansible scripts to install Cloudwatch agent on EC2 instances and monitor metrics like Volumeusage, memoryusage and CPUusage.
- Setting up multiple environment variables input on GitHub to deploy images to ECR.

DevOps Engineer *(TwimBit)* **Hyderabad, TS** *09/2021 - 10/2021*

- Setup Task definitions for a Caddy server and static website.
- Setup CloudFront along with Application LoadBalancer for ECS.
- Write Nginx configuration to reverse proxy traffic within the cluster and to serve SSL certificate on thego with the help of OpenResty Framework.
- Managing the entire infrastructure using terraform. Setup Lambda function for database failover and automate the process using step functions.
- Setup A records and CNAME in Route53.

DevOps Engineer *(Neudesic)* **Hyderabad, TS** *03/2021 - 08/2021*

- Created a Windows server image using Hashicorp Packer.
- Deploying the Packer image on Azure Virtual MachineScale Set using Terraform.
- Managing a GKE cluster using Terraform.
- Setup Load Balancer for the Kubernetes Cluster.

DevOps Intern *(Tivona Global)* **Hyderabad, TS** *10/2020 - 02/2021*

- Continuous deployment automation using bash scripting.
- Automated AWS cloud deployment using Terraform from scratch.
- Implemented sentinel policies on Terraform Cloud.
- Using dynamic blocks to dynamically create multiple resources of block within a resource from a complex value such as a list of map.
- Create IAM policies for users and attach them to an IAM group.
- Lambda function to attach the IAM policy to an IAM user and save the CloudTrail logs for IAM user in DynamoDB using Boto3 scripting.

Online Courses & Certifications

- AWS Cloud Practitioner
- AWS Solutions Architect
- AZ-900
- Digital Cloud Leader
- Aviatrix Certified Engineer
- Terraform Cloud Associate

Education

BTech Electrical and Electronics Engineering *VIT University, Chennai* **Chennai, TN** *2017-2021*

- Under Graduated in Electrical and Electronics Engineering.
- Studied electrical machines, control systems, and signals and systems.

Achievements

Recognized as a Terraform Subject Matter Expert:

- Recognized by Neudesic as a Subject Matter expert for my work with Microsoft.

Tier-1 Udemy Course

- Authored practice questions for the Terraform associate exam.
- My course got recognized as a tier-1 course on the Udemy platform.

Skills

- **Cloud:** Amazon Web Services, Azure, Google Cloud Platform
- **Services:** Prometheus, Grafana, Python, Bash, Terraform, Lambda, Docker, Kubernetes, IAM, RBAC, Azure DevOps, Git
- **Software:** Microsoft Teams, Slack, VSCode