Akshay Choubey

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SUMMARY

As a DevOps/Site reliability Engineer, I bring expertise in managing and optimizing cloud infrastructure to ensure high availability, scalability, and security. engineer having ability to work with CI/CD Pipelines in Azure/GCP cloud environment using tools like Terraform, Ansible, ARM Templates and Shell scripting for integration, automation, build and deployment of various Azure and GCP resources also Proficient in deploying and maintaining Infrastructure as Code (IaC) solutions using tools like Terraform and Ansible. Skilled in automating routine tasks and workflows with scripting languages such as Python and Bash. Passionate about staying up to date with the latest cloud technologies and best practices to drive continuous improvement.

EXPERIENCE

Site Reliability Engineer, **08/2021 - Current**

BETSOL - Banglore, India

Client - Avaya Project - Proactive Outreach:

The goal of this project was to migrate an application which was hosted on-prem to Microsoft Azure. Since the application was a monolith, The decision was made to use Packer create an Image via a Jenkins Pipeline which was then stored in the Azure Shared Image Gallery. Once the image was created, terraform was used to deploy the image as a VM onto Azure. The application also had an external Azure Postgres Server for storing the created Databases.

- Post VM deployment, the configuration of the machine was handled by Ansible roles which were fed into a Linux Daemon to be run whenever the VM restarted or on its first boot. In a nutshell, the configuration of the VM included calls to the API's handling the product and performed certificate exchange to establish trust with the clients.
- Configured CI/CD pipelines to encompass Build, Test, Scan, and Deployment phases for projects on Azure Infrastructure, leveraging Argo CD.
- Responsible for continues improvement and the upkeep of Azure infrastructure, including management of Azure Kubernetes Service (AKS), Azure Virtual Desktop, Virtual Network (V Net), Subnets, Identity and Access Management (IAM), Enterprise Applications, Azure Automation Runbook, Microsoft Azure SQL Database, and VPC Peering.
- Implemented Terraform scripts as Infrastructure as Code (IAC) to provision the infrastructure across all environments efficiently.
- Created Shell/Python scripts for Automating various ad-hoc tasks.
- Setup Cloudflare DNS zones via Terraform and was actively involved in performing CURD operations for DNS A records, Page rules and SSL certificates.

Monitoring Kubernetes Application Using Prometheus and Grafana

- Installed and configured Prometheus and Grafana in a Kubernetes cluster.
- Setup basic Grafana dashboards to chalk out application specific as well as cluster specific performance details.
- Prometheus was used to collect raw data from the cluster whereas Grafana was used to display graphs, heatmaps etc. This resulted in a 40% reduction of response time and improved system reliability.

Avaya Spaces:

Avaya Spaces is a combination of traditional chat rooms, video conferencing, task management tools, blogs, and other communication tools. The purpose of a space is to provide a common workspace for a group of people to collaborate efficiently.

- Significant involvement in configuring Kubernetes cluster on managed GKE, VM instances for production environments and implementing robust strategies including Backup, termination protection, and Disaster Recovery (DR) mechanisms.
- Proficient in setting up IAM users and policies, along with various GCP services such as VPC peering, VPN tunneling, GKE workloads, Load Balancer, Cloud functions, etc.
- Utilized Helm charts to automate YAML configurations across microservices for Kubernetes deployments and applying VM security (Clamav, FIM) daemon sets.
- Managed configuration of Google Cloud Platform (GCP) infrastructure, including Cloud Storage, Container/Artifact Registry, Google Kubernetes Engine (GKE), Load Balancer, Google Cloud Database, and IAM (Service Account).
- Created Python scripts for vm-security scans as a part of Clamav, FIM daemon sets which have cronjob scheduling capability to run on vm-instances.
- Created Shell scripts for HIPAA/PCI automation for yearly/quarterly evidence collection which reduced repetitive tasks.
- Created Shell script and setting cronjob for docker un-used/old image cleanup.
- Maintained and configured MongoDB instances, ensuring that the database achieves maximum performance and availability, additionally monitored the instances through setting up alerts and configured dashboards for usage etc.

SKILLS

- **Cloud:** AWS, GCP and Azure.
- **Scripting:** Shell, PowerShell, and Python.
- **IAC:** Terraform, Ansible
- **Containerization:** Docker, Kubernetes, GKE, AKS
- **SCM:** Git, Bitbucket etc.
- **CI/CD:** Jenkins, bamboo, GitHub Actions
- **Monitoring:** Datadog, Prometheus etc.

CERTIFICATIONS.

- Azure Fundamentals
- GCP Associate

EXPERIENCE

Devops Engineer, 01/2019 to 02/2021
Greenstakes Solutions LLP - Hyderabad, India

Worked on CI/CD pipelines creation (Jenkins), Automated infrastructure using Ansible playbooks, Developed Terraform, PowerShell scripts and ARM templates to automate the build and deployment process.

Used Ansible Ad-hoc Commands for single operation tasks like Reboot, Install/Uninstall etc. and Ansible Playbooks for execution of multiple tasks.

QA Engineer, 10/2017 to 12/2018
TS Industries

Worked on creating the Test Plan, Test Strategy as well as writing, reviewing and executing test cases etc.

Practiced the testing process in Agile Environment as well as waterfall environment.

Gained hands on experience and proficiency on a model-based testing tool - Tricentis TOSCA

Generating Scripts & Test Cases in Python Using Unittest, Pytest, Cucumber style Behave Framework.

EDUCATION.

Bachelor of Engineering.
Gyan Ganga Institute of Technology and Sciences June 2013 – May 2017
Mechanical Engineering
CGPA – 6.5 / 10