DEEPAK BEHERA

Sr. DevOps Engineer, Brillio

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CAREER OBJECTIVE

AWS Certified DevOps Engineer Professional with 4+ years of technical experience in Cloud Infrastructure designing and implementation to meet the AWS well architected framework standards. To work in a globally competitive IT era on challenging assignments that shall yield twin benefits of **job satisfaction and steady-paced professional growth** in the areas of Cloud Computing and related web services.

EDUCATIONAL QUALIFICATION

Degree/ Certificate	Institution	Year	CGPA/Percentage
B. Tech IT	Lovely Professional University, Phagwara	2016	8.49
SSC	Army School, Jhansi/CBSE	2012	71.2%
HSC	Army School, Dehradun/CBSE	2010	76%

TECHNICAL SKILLS

Languages	Python, Shell, Json, PowerShell
DBMS	MySQL
Cloud	AWS, Azure, GCP
Server/OS	Windows, Linux
Cloud Tools	Terraform, Ansible, Docker, Jenkins, GIT, VSTS, Chef, Kubernetes, Prometheus

WORK EXPERIENCE (I)

Organisation - Brillio Technology, Bengaluru
Duration - March 11,2019 – Till Date

Projects

1. **Automating AWS account creation with Governance and Security by leveraging AWS Control Tower service**
   Technology: Amazon Web Services

Role and Responsibilities

- Created AWS Code Pipeline and custom account creation lambda function with CloudFormation template for triggering account creation process.
- Setting up IAM role for lambda function to initiate account creation process in Master account with AWS Control Tower service
- Setting up custom guardrails like creation of config rule, security group port monitoring for new account as per the OU unit in AWS Organization by configuring CloudFormation StackSets.
- Setting up Service Control Policy for different account in OU unit by uploading json policy in S3 bucket and in respective OU folders.
- Setting up security notification service by configuring event bridge in all child account and SNS topic in Audit account.
- Created Service Catalog products like LAMP stack, RDS, Redshift as per organisation standards and compliance which can be shared to all child account with portfolio sharing.

2. **Implementation of SC360 inventory application architecture in client environment**
   Technology: Amazon Web Services

Role and Responsibilities

- Created CloudFormation template for deploying AWS Data Pipeline to execute work on existing resources using Task Runner.
- CloudFormation template to provision s3 bucket with KMS key encryption, lifecycle policy for moving data to Glacier and bucket policy to access the bucket from S3 endpoint.
- Lambda function and step function to orchestrate EMR creation/deletion and to enable EMR with all required modules and agent to communicate with Data Pipeline.
- Setting up SFTP transfer service to push the data from on-premise to S3 bucket via site to site VPN connection to avoid public network traffic.
- CloudFormation template for setting up CloudFront, to set origin as S3 static website hosting bucket and
- CloudFormation template for setting up AWS Code Pipeline to deploy the application code to Elastic Beanstalk and for pushing the files to S3 static website hosting bucket.
- Setting up code commit and branching structure with IAM group and policy to restrict developer to push/merge changes to master branch. Except senior developer no one can merge or push the changes to master branch.
- CloudFormation template for setting up entire network component like VPC, Subnet, NAT Gateway, Internet Gateway and VPC endpoint.

3. **Account Vending Machine (AVM) implementation for managing account creation process.**
   Technology: Amazon Web Services

Description

As an organization expands its use of AWS services, there is often a conversation about the need to create multiple AWS accounts to ensure separation of business processes or for security, compliance, and billing. Customers want to manage account creation and bootstrapping in a scalable and efficient manner so that new accounts are created with a defined baseline and governance guardrails are in place. Most importantly, customers want automation, to save time and resources. So, we have created automate account creation and configuration by automating common guardrails and setting up tasks such as creating default users, configuring custom networks, and provisioning products with a curated set of AWS services into existing AWS environments.

4. **QuickStart for provisioning secure AWS SageMaker environment for Data Scientist**
   Technology: Amazon Web Services

Description

Creation of SageMaker secure environment with added security like Private API calling and disable Internet access, restrict access to ECR for using docker image while creating models, EFS so that data scientist can share information to other Notebook and IAM Policy creation so that a user can access specific resources and enforce them to use tags while provisioning the resources.

5. **Implementing security guardrails for the cloud environment and automation for provisioning the infrastructure.**
   Technology: Amazon Web Services

Role and Responsibilities

- Automated infrastructure provisioning leveraging TeamCity pipeline and Terraform scripts
- Deployed highly available applications on the AWS managed EKS using the automated CI/CD pipeline
- Enforces IT security standards part of the CI/CD pipeline. Some of them included – Enabling AWS WAF and AWS Shield, AWS Custom KMS key encryption for volumes, databases, and AWS S3, Secret manager for storing and rotating RDS credentials.
- Created patch documents and performed patching on Linux instances using AWS SSM
- Designed a highly available and scalable bastion host for accessing the DB instances placed in the private subnets
- Leveraged the work management tool JIRA for bug and issue tracking. All the known issues and the project related details were documented in Confluence.
- Performed Cost Optimization on the existing infrastructure. Analysed the usage patterns of the instances and based on the metrics, downgraded the instance types and instances sizes to avail the optimal efficiency
- Created Golden AMIs with standard updates and agents pre-installed to use it as a standard image filled with all the security features and latest stable updates to use it across the organization

WORK EXPERIENCE (II)

Organisation - Cognizant Technology Solution**,** Chennai
Duration - July 26**,** 2016 – March 07, 2019

Projects

1. **Onboarding Automation:**

Description

Provisioned Customer Environment in Multi-Cloud platform and setting up the monitoring setup for client server using Terraform. Which includes installing Zenoss, creating user and setting up collector in client environment to collect the metrics. Python Script to fetch the server details from Cloud and directly onboarding Customers CI/Server to Service-Now. Shell Script to configure each client machine so that monitoring tool can fetch the monitoring metrics.

2. **Deployment of python function in Azure with VSTS**

Description

Creation of VSTS CI/CD pipeline so that whenever python code committed to VSTS GIT will build the Artifact and release the package to the Azure Function app.

3. **Native Monitoring Script for AWS and Azure**

Description

Creation of python script which will monitor the clients VM when the Monitoring Tool(Zenoss) is in Down State by fetching monitoring metrics from CloudWatch service in AWS and Diagnostics logs in Azure.

4. **Automation Task:**

Description

Used Python/PowerShell for moving the servers to maintenance or production using rest API, automating daily tasks which includes getting instance detail based on tags, starting/stopping instance and sending messages/email on any new resource provisioned in AWS.

Automation Script

- Creation of python script for provisioning pre-configured proxy server in both AWS and Google cloud while running shell script in User Data of AWS and start-up script in Google cloud.
- Creation of Shell Script for creating and configuring Jump Server user for accessing private server and tracking the user action in the server via logs.

Lambda Function (Serverless coding):

- Created lambda function to get the images from the S3 bucket and create Face id and collection with AWS Rekognition service so that it can identify the specific person in every image and notify via SNS.
- Created lambda function for connecting to RDS and update the tables in the RDS.

CERTIFICATION/ACCOMPLISHMENTS

Certification:

AWS Certified Developer – Associate
AWS Certified DevOps Engineer - Professional
Microsoft Azure Infrastructure Solutions 70-533

Accomplishments:

Finalist in AWS Game Day, 2018

Work:

- Developed a QuickStart document for the custom-built solution called Amazon SageMaker with Guardrails with the AWS QuickStart team.
  Amazon SageMaker with Guardrails on AWS
- Joined Cognizant as an Orbit Shifter where I competed with all the 2016 Cognizant recruiter through code challenges and emerged as an Orbit Shifter by gaining position amid the top 100 performers out of 16000 plus competitors.

College: Third Position - LPU Mathematical quiz 2013 and Academic Award, 2010

EXTRA CURRICULAR ACTIVITIES

Attended:

AWS Game Day
AWS Community Day 2019

Participated in:

One India, 2014
Codestorm 2.0 Computer Language Competition, January 2014

LANGUAGES KNOWN

English, Hindi

HOBBIES

Listening to Punjabi folk music, watching movies and anime, playing badminton & basketball