**BANU TEJA**

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**DevOps Engineer**

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**PROFESSIONAL SUMMARY:**

Highly skilled and dedicated IT professional with 10+ years of experience across the entire Software Development Life Cycle. Possessing expertise in diverse areas, including automation, CI/CD implementation, system administration, cloud computing, software configuration management (SCM), containerization, orchestration, and scripting for various environments. Adept at bridging the gap between development and operations, with 6 years of successful experience in DevOps practices. Additionally, I have excelled as a Linux administrator for four years, ensuring the delivery of top-quality software products.

* Expertise in DevOps tools such as GIT, Jenkins, Maven, Ansible, Chef, Docker, Kubernetes, AWS, Azure, Terraform, and monitoring tools.
* Experienced in Continuous Integration (CI) and Continuous Delivery (CD) process implementation using Jenkins and Azure devops pipelines.
* Administering large PostgreSQL database’s ability to do performance tuning index maintenance experience of backing up and restoring PostgreSQL database on a regular basis.
* Monitoring databases to optimize database performance and diagnose any issues.
* Good knowledge on Configuration Management Tools such as Chef, Ansible, and Automated Linux production server setup using the Chef Cookbooks, and Ansible playbooks.
* Analyzed historical incident data within ServiceNow to identify trends and patterns, enabling proactive problem identification and resolution.
* Expertise working with Kubernetes to automate deployment, scaling, and management of web Containerized applications.
* Implemented authentication and authorization mechanisms, including OAuth 2.0, JWT (JSON Web Tokens), and API keys, to protect APIs from unauthorized access.
* Maintained and enhanced vital services' dependability and accessibility, guaranteeing high uptime and little service interruptions.
* Developed and maintained robust incident classification and escalation processes within ServiceNow, ensuring incidents are routed to the appropriate teams and resolved promptly.
* Successfully implemented and managed a Service Mesh architecture using tools like Istio, or AWS App Mesh to improve microservices communication, reliability, and observability.
* Worked on Kubernetes to orchestrate Docker containers of new and existing applications and deploy and manage complex run time environment.
* Worked with development teams to establish and achieve SLOs and SLIs (Service Level Indicators).
* Developed and put into use reliable monitoring programs utilizing Prometheus, Grafana, or Datadog to proactively identify and address incidents.
* Controlled incident response initiatives, such as root cause analysis, diagnosis, and resolution, to reduce the impact on services and stop such events.
* Conducted post-incident reviews (PIRs) to identify problem areas and put preventive measures in place.
* Experience in Setting up the build and deployment automation for Terraform scripts using Jenkins.
* Implemented microservices, application development, and migration using AWS/Azure services such as Azure DevOps, Kubernetes Service (AKS), Container Registry, and Cosmos DB.
* Experience with Grafana, Azure pipelines, Monitor, RBAC, AWS Kubernetes EKS and Kubernetes API to run workloads on EKS Clusters.
* Configured advanced traffic management policies within the Service Mesh to distribute traffic, handle failovers, and ensure optimal load balancing across microservices.
* Designed and implemented automated workflows in ServiceNow to streamline incident handling, reducing manual intervention and resolution times.
* Used Kubernetes to orchestrate the deployment, scaling, and management of Docker Containers.
* Worked on shell/python scripts & implemented auto deployment process and reduced the amount of time.
* Experience on Python, Bash/Shell, Ruby, PowerShell, JSON, YAML and Groovy.
* Major focus on Configuration, SCM, Build/Release Management, Infrastructure as a code (IAC) and as Azure DevOps operations Production and cross platform environments.
* Skilled in writing Ansible playbooks for various packages. Implemented environments, roles, data bags in for better environment management.
* Knowledge on Java Lambda Expressions to retrieve the data from Collections using Functional Interfaces.
* Experience on Azure Site Recovery and Azure Backup Installed and Configured the Azure Backup agent and virtual machine backup, Enabled Azure Virtual machine backup from the Vault and configured the Azure Site Recovery (ASR).
* Implemented mTLS (mutual Transport Layer Security) encryption to secure service-to-service communication within the Service Mesh, enhancing overall network security.
* Proficient in leveraging ServiceNow for incident management, effectively tracking, prioritizing, and resolving incidents to ensure minimal service disruptions.
* Experience in branching, tagging, and maintaining the version across the environments using SCM tools like Subversion (SVN), Git, Bitbucket, and GitHub on UNIX and Windows environment.
* Expertise in working with diverse Database platforms for Installing, Configuring and Managing NoSQL, RDBMS tools like MYSQL, Oracle, DynamoDB, and MongoDB.
* Experienced with handling production incidents, queries, problems through remedy ticketing system and non -production issues/tasks/incidents through JIRA ticketing system.
* Utilized API Gateway features to perform request and response transformations, including data mapping, content type conversion, and protocol translation.
* Used build tools like Maven, ANT, and Gradle for the building of deployable artifacts from source code.
* Experienced using different log monitoring tools like Splunk, Nagios, ELK (Elastic search, Logstash, Kibana) for to see logs information, monitor, and get health & security notifications from nodes.
* Proficiency in writing automation scripts to support infrastructure as code in AWS/Azure and Linux/Windows Administration.
* Collaborated with cross-functional teams to define Service Level Objectives (SLOs) and Service Level Indicators (SLIs) for GCP applications, enabling data-driven decision-making for improvements.
* Designed and configured API Gateway solutions such as AWS API Gateway, Kong, or Apigee to manage and secure RESTful and GraphQL APIs.
* Utilized ServiceNow for problem management, facilitating the identification, investigation, and resolution of underlying issues causing recurring incidents.
* Experience in architecting and Configuring public/private cloud infrastructures utilizing Amazon Web Services (AWS) including EC2, Elastic Load-balancers, Elastic Container Service (Docker Containers), S3, Cloud Front, RDS, DynamoDB, VPC, Direct-Connect, Route53, Cloud Watch, Kinesis, Cloud Formation, IAM
* Leveraged Service Mesh capabilities to collect and analyze telemetry data, allowing for real-time monitoring, troubleshooting, and performance optimization of microservices.
* Experience in development and deployment of applications using JBoss and Apache Tomcat.
* Used AWS Beanstalk for deploying and scaling web applications and services developed with Java, Node.js, Python.

**EDUCATION:**

* Bachelor’s from Jawaharlal Nehru Technological University Anantapur.

**CERTIFICATIONS:**

* Microsoft Certified Azure Administrator
* Certified Kubernetes Administrator
* AWS Developer – Associate

**TECHNICAL SKILLS**

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| --- | --- |
| **Cloud Providers** | Azure, AWS,GCP |
| **Azure** **Services** | Azure App Services, Key vault, Blob storage, Azure AD, Service Bus, ACR AKS, Azure SQL, Azure Cosmos DB, Azure Data Factory, Azure Data bricks. |
| **AWS Services** | RDS, EC2, VPC, IAM, Cloud Formation, EBS, S3, ELB, Autoscaling, Cloud, Trial, SQS, SNS, SWF, Cloud Watch, CloudFront, Elastic Beanstalk, ECS, EKS |
| **Version Control Tools** | Git, SVN, GitHub, GitLab, Bit Bucket |
| **Scripting Languages** | Bash, Python, Shell Scripting |
| **Databases** | Azure SQL, Mongo DB and Cosmos DB |
| **CI/CD** | Jenkins and Azure devops pipeline |
| **Repository Management** | Nexus, Jfrog, Artifactory |
| **Configuration Management Tools** | Chef, Ansible and terraform |
| **Containerization/Orchestration** | Docker,  Kubernetes, |
| **Monitoring Tools** | Splunk, CloudWatch, Grafana and Prometheus |
| **Application Servers/ Middleware** | Apache Tomcat and Nginx |

**WORK EXPERIENCE**

**Client: Biomerieux, Hazelwood || Jan 2022 – Till Date**

**Role: Site Reliability Engineer**

**Responsibilities:**

* Contributed to the creation of CI/CD pipelines for effective software release management utilizing Jenkins, CircleCI, and GitLab CI/CD.
* Experienced in using Nessus, OpenSCAP, and HashiCorp Vault to manage secrets, evaluate security compliance, and find vulnerabilities.
* AWS CloudWatch and Google Cloud Monitoring were used to effectively manage cloud resources, setting up automated scaling and cost optimization.
* Applied the best practices for infrastructure as code, using Git to track infrastructure changes and version the code.
* Proficiently managed GCP resources, such as Compute Engine, Cloud Storage, BigQuery, and Pub/Sub, to complement Azure services and meet project requirements.
* Using Veeam and Bacula, developed and tested reliable backup and recovery techniques to provide data resilience and disaster recovery capabilities.
* Performed load testing to determine the system's scalability and worked together to plan capacity to handle anticipated demand.
* Able to create interesting dashboards and monitor systems in real time using Prometheus and Grafana.
* Skilled in log analysis utilizing Splunk and the ELK Stack, assisting in effective problem-solving and anomaly identification.
* Developed python and shell scripts for automation of build and release process.
* Expertise in Terraform, Ansible, Kubernetes, and Docker to streamline deployments and automate infrastructure provisioning for consistency and scalability.
* Elevated system dependability by fostering good communication between departments and within the SRE team, documenting incidents, and sharing expertise.
* Designed and implemented disaster recovery strategies to ensure business continuity during unexpected failures.
* Maintained comprehensive documentation of system architecture, processes, and incident response procedures for knowledge sharing and future reference.
* Actively monitored and maintained resources in both Azure and GCP using Azure Monitor, Azure Security Center, and GCP's Stack driver, ensuring optimal performance and security.
* Implemented access controls, role-based permissions, and encryption mechanisms to protect sensitive data.
* Performed security assessments, vulnerability scanning, and penetration testing to identify and address any security issues.
* Set up and maintained alerting and monitoring systems to keep track on the performance and health of vital systems and make sure Service-Level Objectives (SLOs) were met.
* Managed response to incidents to follow rigorous service level agreements (SLAs), minimizing downtime and swiftly addressing critical outages.
* Engaged in cross-functional collaboration to define and meet project objectives through efficient GCP and Azure resource allocation.
* Hands-on experience with build automation and continuous integration/delivery tools like Git, Groovy, Docker, Maven/Gradle, and Jenkins.
* Led incident response efforts, promptly resolving critical outages, and minimizing downtime to meet stringent service level agreements (SLAs).
* Participated in the design and testing of disaster recovery (DR) strategies that spanned Azure and GCP, minimizing downtime and data loss during outages.
* Conducted security assessments, vulnerability scans, and penetration testing to identify and remediate potential security risks.
* Stayed up to date with the latest security trends, vulnerabilities, and best practices to continuously improve security measures.
* Configured and installed Grafana and Prometheus using HELM charts within an AKS cluster for monitoring and visualization of Kubernetes workloads.

**Client: UHG (United Health Group), Zionsville, Indiana || Mar 2020 – Dec 2021**

**Role: Aws DevOps Engineer / SRE**

**Responsibilities:**

* Implement required AWS services to High-Performance Computing Experience.
* Developed custom OpenShift templates to deploy the applications and to create the OpenShift objects build, deployment configs, services, routes, and persistent volumes.
* Troubleshoot OpenShift containers for related issues like crash loop back off, pod restarts, out of memory issues and lack of CPU.
* Led the implementation of SRE best practices and principles to enhance the reliability, availability, and performance of mission-critical applications running on AWS infrastructure.
* Worked extensively on AWS broad range of services such as provisioning EC2, VPC, ELB, Security Groups, IAM, EBS, S3, SNS, SQS, Route53, ELB, CloudWatch, Cloud Front, Cloud trial, RDS.
* Successfully integrated Google Cloud Platform (GCP) services into an existing AWS infrastructure, enabling seamless hybrid cloud operations.
* Involved in setting CI/CD Pipelines using Jenkins, Maven, GitHub, Docker, and Nexus.
* Successfully implemented a Service Mesh architecture on AWS, leveraging Istio, to enhance microservices communication, observability, and security.
* Actively monitored and maintained AWS resources, leveraging AWS CloudWatch and other monitoring, and alerting tools, ensuring rapid incident detection and response.
* Created and developed deployments, namespaces, Pods, Services, Health checks, and persistent volumes for Kubernetes in YAML Language.
* Integrated ansible playbooks with the terraform templates to provision the infrastructure in AWS.
* Expertise in configuring the monitoring and alerting tools according to the requirement like Prometheus and Grafana, setting up alerts and deployed multiple EKS dashboards for various microservices in K8's.
* Proficiently managed GCP resources such as Compute Engine, Cloud Storage, BigQuery, and Pub/Sub to supplement AWS services and optimize project performance.
* Automated configuration management and deployments using Ansible playbooks and Yaml for resource declaration.
* Developed and refined disaster recovery (DR) plans for AWS-based applications, resulting in reduced recovery times during failures.
* Configured Istio for traffic management, load balancing, and routing within the AWS environment, optimizing application performance and fault tolerance.
* Deploying to production environment in AWS using Terraform
* Involved in configuring the Ansible tower as a configuration management tool to automate repetitive tasks.
* Designed and Implemented CI & CD Pipelines using Git, Jenkins, Maven, ECR and EKS from scratch achieving the end-to-end automation from code check into deploying docker images to EKS clusters.
* Defined and enforced traffic policies and routing rules using Istio, ensuring granular control over traffic flows and failover strategies.
* Collaborated with cross-functional teams to define Service Level Objectives (SLOs) and Service Level Indicators (SLIs) for AWS applications, enabling data-driven decisions for improvement.
* Created custom Terraform templates as per requirements to use them as blueprints for building & deploying EKS clusters which will set the proxy configured dynamically during the cluster creation.
* Expertise in creating Docker images using Docker File, worked on Docker container snapshots, removing images, and managing Docker volumes and implemented Docker automation solution for CI/CD model.
* Designed and implemented framework using Python and generating Terraform templates to create security groups in AWS.
* Actively participated in post-mortems to identify root causes of AWS-related incidents, driving improvements in system architecture and codebase to prevent recurrence.
* Implemented Istio's security features, including mutual TLS (mTLS) authentication and fine-grained access control, to enhance the overall security posture of the microservices ecosystem.
* Automate SDLS with scripting languages like python, shell, and groovy scripts. System troubleshooting and problem-solving across platform and application domains.
* Fostered a culture of blameless post-mortems, collaboration, and continuous improvement within the AWS SRE team and across the organization.
* Deployed 3 tier architecture infrastructure on AWS cloud by integrating with Jenkins pipeline.
* Created dynamic routing/load balancing capability, allowing for large application scaling, used ingress rules, and a Network Load Balancer with the NGINX Ingress Controller on Amazon EKS.
* Demonstrated expertise in IaC (Infrastructure as Code) practices, using Terraform and CloudFormation to automate GCP and AWS infrastructure provisioning.
* Implemented Terraform modules for deployment of applications across multiple cloud providers.
* Used Ansible to deploy ELK for automating continuous deployment (CD) and configured Nodes and deployment failure reporting and working with Site Reliability Engineer to implement Data dog system metrics, analytics.
* Monitor applications and environment by managing the installation/configuration of Splunk and ELK.
* Developed Kibana Dashboards based on the Log stash data and Integrated different source and target systems into Elasticsearch for near real time log analysis of monitoring End to End transactions.
* Designed and developed Security Framework to provide fine grained access to objects in AWS S3 using AWS Lambda, DynamoDB.
* Contributed to the design and implementation of auto-scaling and load-balancing solutions for AWS applications, maintaining efficient resource utilization.
* Worked as a site reliability engineer the main task is to design and implement adaptive remote testing framework for installation and customization of multitenant cloud environments, their integration with distributed data sources.
* Created and maintained the python scripts and Shell scripts for deployment of Tomcat application servers.

**Client: General Motors, Detroit, MI. || Jul 2018 – Feb 2020**

**Role: DevOps Engineer**

**Responsibilities:**

* Creating and maintaining containerized micro services and configuring/maintaining private container registry on Microsoft Azure for Hosting Images and using Windows Active Directory.
* Planning and implementation of data and storage account solutions for azure files, Queue storage and blob storage.
* Worked on Azure DevOps services such as Azure Repos, Azure Boards, and Azure Test Plans to plan work and collaborate on code development, built and deployed application.
* Designed and implemented database schema, created tables and indexes, and configuring security settings for Azure SQL DB
* configuring database-level security settings, creating users and roles, and implementing access controls to ensure that only authorized users have access to correct schema.
* Managed servers on the Microsoft Azure Platform Azure Virtual Machines instances using Ansible Configuration Management and created Ansible Playbooks, tasks, and roles to automate system operations.
* Hands on experience on using Terraform for infrastructure provisioning.
* Worked with Terraform for automating VNET, NSG, AKS, ACR, VMs, and Storage accounts to replace the rest of our infrastructure.
* Designed and implemented CI/CD pipeline for Azure app services and responsible for monitoring the performance and availability of Azure App Services and troubleshooting any issues that arise.
* Extended working knowledge in azure networking services, Configured VNETs and subnets as per the project requirement. created and maintained NSG rules.
* Created Ansible roles in YAML and defined tasks, variables, files, handlers, and templates.
* Process and Implementation - Extensive experience implementing software throughout the SDLC process, deep hands-on experience of networking, migration, and implementation in Azure.
* Extensive experience in migrating on-premises applications to Azure and configured VNETs and subnets as per the project requirement and performed PowerShell scripting to do Patching, Imaging, and Deployments in Azure.
* Building/Maintaining Docker container clusters managed by Kubernetes Linux, Bash, GIT, and Docker, on GCP (Google Cloud Platform).
* Worked with Terraform scripts to automate the Azure Iaas virtual machines using terraform modules and deployed virtual machine scale sets in production environment.
* Developed and maintained Continuous Integration (CI) using tools in Azure DevOps (VSTS) spanning multiple environments, enabling teams to safely deploy code in Azure Kubernetes Services (AKS) using YAML scripts and HELM charts.
* Worked on creating, configuring, and managing AKS clusters in Azure, including managing node pools, configuring networking, and setting up load balancing.
* Managing the Azure Kubernetes Services (AKS) policies, providing access to different Azure resources and developing and improving the workflows that govern access.
* Monitoring and troubleshooting Kubernetes clusters using Prometheus Grafana.
* Extensive involvement in Azure Backup, Azure Policies, Azure Key Vault.
* Developed and implemented processes and procedures for Linux OS patching.
* Collaborated with other teams to ensure patching activities do not impact critical business operations.
* Managed and maintained multiple GitHub repositories and responsible for managing Pull requests.
* Developed and implemented access controls in GitHub to ensure that only authorized users have access to sensitive data and repositories

**Client: Zen3 Info Solutions, Hyderabad, India || Oct 2016 – Sep 2017**

**Role: DevOps Engineer**

**Responsibilities:**

* Experience in Software Integration, Configuration, building, automating, managing, and releasing code from one environment to another environment and deploying to servers.
* Worked in AWS environment, instrumental in utilizing Compute Services (EC2, ELB), Storage Services (S3, Glacier, Block Storage, and Lifecycle Management policies), Cloud Formation, Lambda, VPC, RDS and Cloud Watch.
* Creating, validating, and reviewing solutions and effort estimate of converting existing workloads from classic to ARM based Azure Cloud Environment
* Worked on implementing backup methodologies by Power Shell Scripts for Azure Services like Azure SQL Database, Key Vault, Storage blobs, App Services etc.
* Designing and managing azure PostgreSQL database schemas experience in Security access control experience with testing experience with configuration management.
* Experience with version control integrating, and maintaining, Development, Staging and Production PostgreSQL, PostgreSQL databases.
* Migrated Linux environment to AWS by creating and executing a migration plan, deployed EC2 instances in VPC, configured security groups &NACL's, attached profiles and roles using AWS Cloud Formation templates.
* Used Amazon Route53 to manage DNS zones globally & to give public DNS names to ELB's and CloudFront for Content Delivery
* Experience in implementing AWS lambda to run servers without managing them and to trigger run code by S3 and SNS.
* Established infrastructure and service monitoring using Prometheus and Grafana.
* Responsible for Continuous Integration (CI) and Continuous Delivery (CD) process implementation using Jenkins along with PowerShell to automate routine jobs.
* Developed shell scripts for automation of the build and release process, developed Custom Scripts to monitor repositories, Server storage.
* Experience in resolving issues of merge conflicts and develop Custom Scripts to monitor repositories and Server storage.
* Involved in cluster services using Kubernetes and Docker to manage local deployment in Kubernetes by building a self-hosted Kubernetes cluster using Terraform and ansible and deploying application containers.
* Involved in development of test environment on Docker containers and configuring the Docker containers using Kubernetes.
* Deploy code updates into test and production environments and work to roll environments forward.
* Knowledge of Splunk content development with the ability to create queries and dashboards.
* Written Templets for Aws infrastructure as code using terraform to build staging and production environments and defined terraform modules such as compute, Network, Operations, and users to reuse in different environment.
* Used terraform to write infrastructure as code and created terraform scripts for EC2 instances, Elastic load balancers and S3 buckets.
* Maintained and managed assigned systems, Splunk related issues and administrators.
* Worked with Open Shift platform in managing Docker containers and Kubernetes Clusters.
* Created and maintained the Power Shell scripts and Perl scripts deployment scripts for Tomcat application servers.
* Performed and deployed Builds for various Environments like QA, Integration, UAT and Productions Environments.
* Used Ticketing tool JIRA to track defects and changes for change management, monitoring tools like New Relic and CloudWatch in different work environments in real and container workspace.

**Client: Techy Soft, Bangalore, India || July 2012—Sep 2016**

**Role: Linux Administrator**

**Responsibilities:**

* Installation, configuration, backup, recovery, maintenance, and support of RedHat Linux and Solaris.
* Experience in installation, administration, patches, upgradations, Configuration, performance tuning and troubleshooting of Red Hat Linux 4.x/5.x/6.x, Microsoft Windows environments. Applied knowledge of DNS, DHCP and IP Addressing.
* Installation and configuration of various services like DNS, DHCP, NFS, send mail, Apache Web Server, Samba, SSH, HTTP, RPM package management and experience in administering Active Directory and group policies.
* Accessing the clients by SSH. Setting local server with hardware and software raid.
* Writing shell scripts to automate migrations, database, and files backup, monitoring, and resolving server related services like Apache and MySQL.
* Monitoring All Ubuntu and Red hat Servers. Monitoring Nagios tools and solving issues. Day to day operational support and maintenance for RedHat 6&7 servers and Ubuntu servers. Install Red hat enterprise Linux 6&7 using kickstart configuration.
* Experience on the installation of VMware ESX, ESXI migration of VM's from one host to another host.
* Good understanding of file system and storage management concepts like LVM.
* Sending the Uptime and Downtime notifications to teams regarding Servers Status as a part of the Build. Engineer role at the time of deploying the EAR and WAR package in Tomcat Admin Console
* User account management worked with shell scripting (bash) to automate administration tasks.
* Responsible for installing, upgrading, and managing packages via RPM and YUM.
* Logged events from forced crash dumps and troubleshoot server issues.
* Configured Yum repository server for installing packages from centralized server.
* Installed and Configured DCHP server to give IP leases to production servers.
* Applied the clustering Topology that meets High Availability and Failover requirements for performance and functionality.
* Troubleshooting Day-to-Day issues with various Servers on different platforms.
* File system Administration, Setting up Disk Quota, solutions on SAN/NAS storage.
* Configuration and administration of Clustered servers on SUSE Linux environment.
* Configuring backups on newly built servers and monitoring failed backups.
* Install and configure Ubuntu, Centos on remote servers and Desktop servers.
* Installation of patches and packages using RPM and YUM in Red hat Linux.