**Pragnya Reddy**

**Sr. Devops/cloud engineer**

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**Professional Experience:**

* Senior DevOps and Cloud Engineer with **8 years of** expertise in both public and private cloud architecture, with a focus on **AWS Cloud, Continuous Integration** and Continuous Deployment, and **release engineering.**
* Experienced in **Linux Administration**, Configuration Management, Continuous Integration (CI), Continuous Deployment, Release Management and Cloud Implementations.
* Designed and implemented cloud-based solutions using event-driven and **serverless architecture.**
* Managed **DynamoDB** databases and optimized indexing for efficient data retrieval and Implemented AWS I**AM** roles for identity and access management.
* Developed AWS **Step** Functions for visual workflow services and defined state machines using ASL.
* Proficient in AWS Cloud platform and its features which includes **EC2, VPC, EBS**, **AMI, RDS, EBS, Lambda**, Cloud Watch, Cloud Trail, Cloud Formation, Autoscaling, CloudFront, IAM, S3 & R53.
* Automation of DB Lifecycle operations including patching, hardening, refresh, etc.
* Instrumenting resiliency parameters and monitoring metrics around stability, reliability, and security.
* Working knowledge of the whole **Unix/Linux lifecycle**, including but not limited to planning, designing, installing, configuring, maintaining, upgrading, deploying, and supporting production.
* Knowledge of several Continuous Integration tools (**Jenkins, Gitlab, and TravisCI).** Developed and implemented CI/CD processes for completely automated application build and deployment utilizing CloudFormation, Jenkins, **Ansible, AWS-cli, and other** build tools.
* Developed **Golang scripts** to automate common tasks and improve system reliability.
* Driving proactive i**nciden**t resolution and **establishing** a culture of collaboration between teams.
* Experience with unit, integration, and functional testing tools (**JUnit, Selenium).**
* Experience in producing RESTful services using **JavaScript, jQuery** and **Angular2.**
* Worked on Infrastructure Administration, which included installing, configuring, maintaining, and supporting software and hardware in **RHEL 6.x, 7.x,** and **CentOS.**
* Container management **using Docker** by writing Docker files and setup the automated build on Docker Hub and installed and **configured Kubernetes.**
* Worked on Kubernetes cluster **deployment,** management, and scaling on AWS using **EKS.**
* Proficient in using industry-standard tools and technologies, including load balancers, **SSL certificates,** and CDN services.
* Worked with databases including **PostgreSQL**, **SQL**, **and Mongo t**o optimize data storage and retrieval.
* Knowledge of how to construct a test environment with load balancing, highly available, fault **tolerant Kubernetes infrastructure and orchestrate containers in** clustered environments **using OpenShift**.
* Good at **scripting** languages like **Python, Bash, Groovy** and configuration management tools Terraform/Ansible/Cloud Formation Engine and Web Service like AWS.
* Managed source code repositories and version control using **Bitbucket.**
* Expertise **in orchestrating services** in Amazon Web Services (AWS) using **Terraform** and CloudFormation to build, manage high availability and scalable infrastructure.
* Expertise **in Python** framework like **Flask**, automate infrastructure provisioning, deployment, and monitoring tasks using tools like **Ansible** and **Chef.**
* **Used Jira** and **Confluence** to manage team tasks, backlogs, and documentation.
* Expertise in **GitLab** features and functionality, including **repository management**, issue tracking, code review, and merge requests.
* Experience working with **nginx web servers**. Skilled in configuring, deploying, and managing large-scale **web infrastructure**s, with a focus on optimizing server performance and delivering high-quality user experiences.
* **Used ECS** to deploy and maintain apps in AWS. To orchestrate Docker containers for scalable build, test, and deployment systems, ECS task definitions were created.
* Experience administering and configuring web servers such as IIS, Tomcat, and NodeJS, and **understand TCP/IP, HTTP/HTTPS, REST, and SOAP protocols.**
* Designed and implemented high-performance, scalable, and secure **EKS** clusters.
* Installed, configured, modified, test & deploy applications on Apache Web server, **Tomcat & JBoss**.
* Experience in monitoring System/Application Logs of server using **Wily, Splunk**, **Kibana** & Dynatrace to detect Prod issues.
* Configured and operated Apache Web Server on Linux for **REST/SOAP-**based web applications utilizing Apache and WebLogic.
* Demonstrated a strong understanding of **Agile principles** and practices, including continuous delivery and testing, user story mapping, and **Agile metrics.**
* Expertise on **SAFE** (scaled agiled framework) implementing **Agile practices** at scale in an organization.
* Good experience of software development in **Python** (libraries used: BeautifulSoup, NumPy, SciPy, **Matplotlib, Markdown, Pandas Data frame, network, urllib2**, MySQL dB (for database connectivity) and IDEs - Sublime text, Spyder, PyCharm.
* Wrote automated unit and integration tests using **Python** and **Pytest.**
* Knowledge in Application load balancing and setting up **load balancers (ALB**) in AWS and firewall rules in enterprise environment.
* Experience with GitLab integrations and extensions, such as **Slack notifications,** Kubernetes deployment, and custom **CI/CD runners**.
* Strong knowledge **on artifactory** for dependency management and binary storage.
* Proficient in **AWS** services such as **ELB**, Web Servers, Cloud Front distribution, **EC2** and database security groups, and application configuration created **python** scripts that completely automate the process of creating stacks, single servers, or joint web servers to stacks.
* Skilled in designing, implementing, and maintaining robust monitoring systems using tools like **Prometheus, Datadog, Graphite**, and others.
* Experience in containerizing applications with docker**, Kubernetes, ECS and** OpenShift for container orchestration.
* Experience with Azure and its services **like Azure Web Roles**, Work Roles, VM Role, **Azure SQl, Azure** storage, AD Licenses, Virtual machine Backup, Azure Virtual Networks (**Vnets)** etc.
* Created recommendations on how to duplicate a subset of on-premises machines to **the Azure** **Infrastructure as a Service (IAAS**) offering which will be used for disaster recovery. This analysis included the specifics to synchronize on-premises data with **SQL Server** and **SharePoint instances** hosted in VMs.

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| Versioning Tools | GitHub, GitLab, SVN, Bitbucket, GIT |
| Build Tools | Maven, Gradle, Nexus, Ant, MS Build and Make |
| Scripting | Python, Ruby, Shell Scripting, PowerShell, Perl, Groovy |
| Cloud Technologies | AWS, Azure, GCP |
| Containerization Tools | Kubernetes, Docker, Docker Swarm, OpenShift |
| Analytics& Monitoring | ELK, Splunk, Nagios, App Dynamics, New Relic |
| Bug tracking Tools | JIRA, Nagios, Remedy |
| CI Tools | Jenkins, Hudson, Bamboo, CircleCI |
| Configuration Management | Chef, Ansible |
| APP/Web Servers | Apache Tomcat 7/8, HAProxy, Apache Web Server, Nginx |
| RDBMS/NoSQL | Oracle 11g/12c, Couchbase, MySQL, Cassandra |
| Networking | DNS, Telnet, LDAP, TCP/IP, FTP, HTTP, HTTPS, SSH, SFT, SCP |
| Operating Systems | Mac OSX, Ubuntu, CentOS, RedHat, SUSE, Windows, Solaris10. |
| Virtualization | Virtual Box, VMware,Vagrant |

**Technical Skills:**

**PROJECTS:**

**Takeda, Boston, MA**

**DevOps Engineer**

**Dec 2020- Current**

**Job Responsibilities:**

* Created and consumed terraform modules for AWS orchestration using cloud patterns. Worked with cross platform teams for migration to AWS cloud.
* Created ASL for Step Functions and triggered events with Lambda for multiple projects, resulting in more efficient workflows and faster processing times.
* Integrated AWS Event Bridge as a serverless event bus to ingest data from multiple applications, allowing for real-time data analysis and processing.
* Deployed and managed containerized applications on Amazon EKS using Kubernetes concepts like Pods, Deployments, Services, and ConfigMaps.
* Worked with AWS services like Amazon EC2, Amazon RDS, Amazon S3, and Amazon VPC to support the Amazon EKS deployment.
* Designed and integrated the full scale Hibernate / spring persistence Solution with the application architectures.
* Implemented ETL processes using stream sets, tools and resources for migration of data within systems.
* Used LDAP for user security credentials authentication and for validating the user roles.
* Created services to integrate Apache Kafka into existing microservice architecture to allow event‑driven data flow.
* Created RESTful API’s using JavaScript, jQuery and Angular2.
* Implemented and maintained IAM roles and permissions for multiple applications, ensuring secure access to AWS resources.
* Conducted performance analysis and tuning of NiFi clusters, to optimize resource utilization and improve overall system performance.
* Designed and implemented monitoring and alerting solutions for NiFi clusters, to detect and resolve issues proactively.
* Scaled the capacity of EC2 instances across multiple zones in a region, Elastic Load Balancing mechanism used with Auto Scaling feature to distribute incoming high traffic for the application.
* Used preconfigured template such as AMI to create and configure AWS EC2 instances, To Run, Build and Test those EC2 instances through corporate based VM images with complete package.
* AWS services which include ELB, Web Servers, Cloud Front distribution, EC2 and database security groups and application configuration created PYTHON scripts which totally automate it, creates stacks, single servers, or joint web servers to stacks.
* Implementing AWS solutions using EC2, S3, RDS, Dynamo DB, EBS, and Elastic Load Balancer, Auto scaling, SNS, SQS, Cloud Trail, Cloud Formation, IAM, Route 53, Cloud Watch, Lambda.
* Experience with Configuration Management Tools (Ansible, Chef) to automate tasks, deploy web applications software and configurations.
* Experience in writing **groovy shared** libraries for customizable, reusable Jenkins workflows & stages. Implemented branching strategies using Git, Subversion and experience in migrating repositories from subversion to Git.
* Experience in Splunk to analyse logs for applications and Experience in setting up monitoring using Datadog for applications.
* Involved in handling various Incidents and requests related to the application support and provided on-call support for releases.
* **Used ECS** to deploy and maintain apps in AWS. To orchestrate Docker containers for scalable build, test, and deployment systems, ECS task definitions were created.
* Designed the project pipelines using Jenkins for Continuous Integration and deployment into different Web/Application Servers.
* Worked **on Azure Site Recovery** and **Azure Backup- Deployed** Instances on Azure environments and in Data centres and migrating to Azure using **Azure Site Recovery** and collecting data from all Azure Resources using **Log Analytics** and analysed the data to resolve issues.
* Experience with Azure and its services **like Azure Web Roles**, Work Roles, VM Role, **Azure SQl, Azure** storage, AD Licenses, Virtual machine Backup, Azure Virtual Networks (Vnets) etc.
* Created recommendations on how to duplicate a subset of on-premises machines to **the Azure** **Infrastructure as a Service (IAAS**) offering which will be used for disaster recovery. This analysis included the specifics to synchronize on-premises data with **SQL Server** and **SharePoint instances** hosted in VMs.
* Experience with infrastructure automation tools such as **Azure Resource Manager (ARM)** templates and **PowerShell scripts.**
* Creating S3 buckets and managing policies for S3 buckets for storing static websites, logs, build artifacts, snapshots and creating a snapshot of an EBS volume and stores it in Amazon S3.
* Design and developed Containers as a service (CAAS) on Kubernetes to allow software developers and IT departments to upload, organize, run, scale, manage and stop containers by using container-based virtualization.
* Installed and configured Ansible to execute Ansible ad-hoc commands as well as automating the configuration of the infrastructure using Ansible playbooks.
* Using Amazon Cloud Watch for monitoring and alerting and integrated with Autoscaling launch configurations for monitoring the log files, store them and track metrics and used Nagios.
* Setup and support automated Continuous Integration utilizing tools like Jenkins, Shell Scripts, and AWS CLI/API.
* Environment: AWS (EC2, S3, ELB, VPC, RDS, Cloud Watch), GIT, Jenkins, Ansible, Kubernetes, Docker, Glacier, Shell scripting, Web sphere, Nexus, Terraform, Nagios and JIRA.

**IBM, Dallas, TX**

**Cloud/DevOps Engineer**

**Oct 2019-Nov 2020**

**Job Responsibilities:**

* Creating and managing the AWS & GCP Cloud Infrastructures.
* Launching the Infrastructure using the code and Managing Users and Groups using IAM.
* Securing Infrastructure using Firewalls, SG, IAM Policies and NACLs
* Creating Jenkins Jobs for Continuous Integration
* Implemented caching techniques, wrote POJO classes for storing data and DAO’s to retrieve the data and did other database configurations using EJB.
* Worked to develop web applications using spring, Rest based Web services. Used HTML5, CSS3, JavaScript, JSP, JQUERY, Angular 4, AJAX, and Bootstrap in front end.
* Building competency for Kubernetes, Cloud platforms and deployment tools as part of CoE
* Doing POCs in hosting DevOps framework on Google Cloud Platform.
* Coming up with new use cases, providing solutions and inputs to Presales team.
* Creating different pipelines in Jenkins for making smooth automated application deployment on Cloud environments like GCP, AWS and open-source technologies like Docker and Kubernetes.
* Building the Docker Images and deploying the applications using Docker images and helm
* Dealing with troubleshooting issues related to containers in pods and Kubernetes cluster.
* Building End to End DevOps workflow in automating entire Software development life cycle using Jenkins, GIT and Gerrit.
* Managing GCR Images and Managing Kubernetes API objects like ConfigMaps and secrets.
* Monitoring the services using Stack driver and troubleshooting and fixing the production issues.
* Hands-on Experience in Creating and Maintaining GCP services like GCE, GKE, GAE, Cloud SQL, Load Balancers etc.
* Hands-on Experience in automating GCP services with Deployment Manager/Terraform Scripts.
* Expertise in integrating GCP services like Cloud Source repositories, Container builder with DevOps tools like Jenkins, Git, Spinnaker etc.
* Experience in Creating Docker files and managing Docker Images in Google Container Registry.
* Having hands-on Experience in Migrating GKE Node Pools with zero Downtime.

**Mindtree, Hyderabad, India**

**DevOps Engineer**

**Jan 2018-May 2019**

**Job Responsibilities:**

* Provisioned the highly available EC2 Instances using Terraform and cloud formation and wrote new plugins to support new functionality in Terraform.
* Deployed application using Pivotal Cloud Foundry (PCF) CLI.
* Implemented CI/CD for all the Microservices of the OEM application using Jenkins.
* Accelerated the Chef infra maintenance including monitoring and security fix and on Chef Server backups.
* Developed writing Chef Cookbooks using the components like attributes, files, resources and templates.
* Maintained the interfaces and secure connections between Jenkins and CI/CD tools.
* Executed the automation from commit to deployment by implementing a CD pipeline with the help of Jenkins and Chef
* Worked with Amazon Elastic Load Balancing, which automatically distributes traffic across multiple Amazon EC2instances, which enables to achieve fault tolerance in the applications.
* Incorporated Amazon Opsworks, which is a configuration management tool that uses Chef to automate the servers that are configured and deployed across Amazon EC2 instances.
* Well versed with Amazon Route53 which effectively connects user requests to the infrastructure running on AmazonEC2 instances and AmazonS3 buckets.
* Utilized Amazon Elastic Block Storage, which provides persistent block storage volumes for use with Amazon EC2 instances in the AWS cloud.
* Wrote the Vagrant scripts to spin up servers on the developer workstations and created Vagrant windows and Linux boxes using Packer.
* Worked in an IAAS environment called Terraform, to manage application infrastructures such as storage and networking.
* Specialized in working closely with system engineers to resolve the issues and handled release process for over twenty-five applications which are at low and production phases with multiple deployment tools like Jenkins and Bamboo.
* Implemented the automated Nagios in Ops environment for alerts and email notifications using Python script and executed them through Chef.
* Used ECS to deploy and maintain apps in AWS. To orchestrate Docker containers for scalable build, test, and deployment systems, ECS task definitions were created.

**HSBC, Hyderabad, India**

**AWS DevOps Engineer**

**April 2016-Dec 2017**

**Job Responsibilities:**

* Installed and configured multiple domains and completely created development, test, and PROD environments.
* Involved in AWS EC2/VPC/S3/SQS/SNS based automation through Terraform, Ansible, Python, Bash Scripts. Adopted new features as they were released by Amazon, including ELB & EBS.
* DevOps role converting existing AWS infrastructure to Server-less arch (AWS Lambda, Kinesis) deployed via Terraform.
* Responsible for configuring, monitoring, and alerting tools according to the requirement like AWS CloudWatch, AWS CloudTrail, Dynatrace, Nagios, Splunk Enterprise, SNMP monitoring for the VPN connections.
* Virtualized the servers using the Docker for the test environments and dev-environments needs and, configuration automation using Docker containers.
* Worked with AWS S3 services like creating buckets, configuring buckets with permissions, logging, versioning, tagging & lifecycle policies to back the data from AWS S3 to AWS Glacier.
* Configured ELK stack in conjunction with AWS and using Logstash to output data to AWS S3.
* Implemented a production ready, load balanced, highly available, fault tolerant, auto scaling Kubernetes AWS infrastructure and microservice container orchestration.
* Configured AWS Identity and Access Management (IAM) Groups and Users for improved login authentication.
* Provided policies to groups using policy generator and set different permissions based on the requirement along with providing Amazon Resource Name (ARN).
* Used Ansible and Ansible Tower as configuration management tool, to automate repetitive tasks, deploy applications and manage changes and automate software update and verify functionality.
* Wrote Ansible playbooks, inventories, created custom playbooks written in YAML language, encrypted the data using Ansible Vault and maintained role-based access control by using Ansible Tower.
* Setting up Kubernetes (k8s) Clusters for running microservices and pushed microservices into production with Kubernetes backed Infrastructure. Development of automation of Kubernetes clusters via playbooks in AWS.

**Igate, Hyderabad, India**

**Linux Engineer**

**April 2015 – Mar 2016**

**Responsibilities:**

* Primarily responsible for keeping the servers up and running as well as providing direct user support for any technical issues related to Linux systems.
* Actively monitoring systems health using monitoring tools and responding to those tickets through the ticketing platform.
* Setting up secure password less SSH authentication on servers using SSH key pair.
* Provided support with data migration using tools like tar and gzip followed by SCP for migration.
* Dynamically modify kernel Parameters as requested by clients. Setup cron jobs schedules for various backup and monitoring tasks.
* Tuning and hardening Linux based OSs with enhanced security layers of firewalls.
* Used Bash scripting for day-to-day automation task. Worked in a data center for the Racking and stacking of servers.
* Performed regular installation of patches using RPM and YUM.
* Worked with "directory naming" technologies (Active Directory (AD), LDAP etc.)
* Hands-on experience with incident, change, problem management and expert in leading troubleshooting efforts and performing root cause analysis (RCA)
* Expert in network administration - Linux routing, network interface configuration, and troubleshooting.
* Configured NIC-bonding on new builds for fault-tolerance, load-balance, and redundancy.
* Managed LVM to create volumes on the volume groups, and file systems, extended logical volumes and file systems as and when needed. Managed file systems like EXT3, EXT4, X