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***VENKATA GOPAL YERRAGOLLA***

***Cloud DevOps Engineer***

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**PROFESSIONAL SUMMARY:**

* Having **10+** years of experience in IT industry with **6** years as a Cloud DevOps Engineer, Build and Release Engineer which includes Software Configuration Management (SCM), Build/Release Management, Continuous Integration and Continuous Delivery using different tools and **4** years as a linux administrator.
* Expertise in DevOps tools such as **GIT, Docker, Kubernetes, AWS, Jenkins, Maven, Ant, Gradle, SonarQube, Nexus Repository, Jfrog, Ansible, Terraform, Splunk, New Relic, Prometheus, Grafana.**
* Experienced in Continuous Integration (CI) and Continuous Delivery (CD) process implementation using **Jenkins, GitLab CICD pipelines and GitHub Actions.**
* Experienced in Configuration Management Tools such as **Ansible, Chef** Automated Linux production server’s setup using the **Ansible playbooks, roles, Cookbooks**.
* Experience with **Docker** containerized environment, hosting web servers on containers, building Docker images using Docker.
* Expertise working with **Kubernetes** to automate deployment, scaling and management of web Containerized applications.
* Worked on **Kubernetes** to orchestrate **Docker** containers of new and existing applications as well as deployment and management of complex run time environment. Setup RBAC Roles on Kubernetes Cluster.
* Automated deployment, configuration, scaling, and maintenance tasks using **Infrastructure-as-Code (IaC)** tools such as **Cloud Formation, Terraform**.
* Designed and distribution of data across all the nodes and Clusters on different availability zones in **AWS Redshift** and experienced in automating the infrastructure using **Terraform** in AWS console.
* Expertise in administering and automating operations across multiple platforms **(UNIX, Linux, Windows and MAC)**.
* Experienced in working on both On-Premise and Cloud (AWS) platforms utilizing **DevOps/Agile** operational processes.
* Expertise in AWS Cloud utilizing various services like **EC2, VPC, ELB, Auto-Scaling, Security Groups, Route53, IAM, EBS, Load Balancers, RDS, S3, SNS, SQS, CloudWatch, Elastic Beans Stalk, CloudFormation & EKS** and other services of AWS.
* Built and configured VPC in the AWS cloud to support Enterprise Data Warehouse hosting including **VPC, Public & Private Subnets, inbound & outbound Security Groups, Route Tables, and Elastic Load Balancer.**
* Designing, developing, testing, and deploying cloud-based applications and services using **AWS** technologies and services.
* Building, integrating, and deploying **Jenkins** for continuous integration and continuous deployment **(CI/CD)** workflows.
* Responsible for setting up and configuring **Kafka clusters** on **AWS**, including provisioning **Ec2 instances**, **installing Kafka software, configuring networking, security, and authentication settings, and setting up backup and disaster recovery solutions.**
* Implemented monitoring and alerting solutions to proactively detect and resolve issues in **Kafka** clusters using **cloud watch**, **Apache Kafka** monitoring tools, and other third-party monitoring tools to collect and analyze metrics, logs, and other performance data, and setting up automated alerts and notifications.
* Worked closely with development teams to integrate **Kafka** into the DevOps pipeline, including implementing **CI/CD** processes, automated testing, and versioning.
* Used AWS **lambda** to run servers without managing them and configured to trigger, to run code using S3.
* Experience with **Linux/UNIX** environments and scripting for Build & Release automation.
* Hands-on experience in DevOps automation development for Linux and Windows Environments. Experience in **UNIX** environment and expertise in several flavors of **Linux** including **Red Hat, CentOS,** and **Ubuntu.**
* Experience in Configuring and Administrating **Nexus Repository Manager/JFrog** Artifactory
* Designed highly available, cost effective and fault tolerant systems using multiple **EC2 instances, Auto Scaling, Elastic Load Balancer and AMIs and S3 Glacier, EBS for ALL** environments as well as infrastructure.
* Performed application migration to **Docker** and containers for various projects and established the use of **Blue/Green Deployments, Load Balancers and AWS EC2** spot instances.
* Experience on AWS disaster recovery and Backup Installed and Configured the **AWS backup agent** and **ec2 instance backup**, Enabled aws ec2 backup from the **AWS secret manager** and configured the **AWS disaster recovery.**
* Experience in branching, tagging, and maintaining the version across the environments using SCM tools like **Subversion (SVN), Git, Bit Bucket**, and **GitHub**.
* Expertise in building **Kafka cluster**, cluster maintenance, trouble shooting, monitoring, commissioning and decommissioning Data nodes, Troubleshooting, Manage and review data backups, Manage & review log files.
* Expertise in working with diverse Database platforms for Installing, Configuring and Managing **RDBMS** tools like **MYSQL, Oracle and NOSQL Dynamo DB, and Mongo DB/CosmosDB.**
* Worked on various network protocols **like HTTP, UDP, FTP, TCP/IP, SMTP, SSH, SFTP & DNS** and technologies **like load balancers (ELB), ACL, Firewalls**.
* Experienced with handling production incidents, queries, problems through remedy ticketing system and non -production issues/tasks/incidents through **JIRA** ticketing system and **ServiceNow**.
* Good understanding of web and application servers like **Apache Tomcat, WebSphere, Nginx and IIS**.
* Used build tools like **Maven, Gradle and MSBuild** for the building of deployable artifacts from source code.
* Experience in building and deploying **Java/.NET following SOA/MicroServices** applications and troubleshooting the build and deploy failures.
* Proficient with **Terraform** Configuration files to spin up the infrastructure very easily and efficiently.
* Experienced using different log monitoring tools like **Splunk, New Relic, ELK (Elastic search, Logstash, Kibana)** for to see logs information, monitor, get the health & security notifications from nodes.

**EDUCATION:**

* Bachelors

**CERTIFICATIONS**

* Certified Kubernetes Administrator
* AWS Developer – Associate
* Certified Terraform Associate

**TECHNICAL SKILLS:**

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| **AWS Services** | RDS, EC2, VPC, IAM, Cloud Formation, EKS, EBS, S3, ELB, Auto Scaling, Cloud Trial, SQS, SNS, SWF, Cloud Watch, Load Balancers, Elastic Beans Stalk, ECR. |
| **CI/CD** | Jenkins, GitHub Actions |
| **Artifactory Storing Tools** | Jfrog and Nexus |
| **Servers** | Nginx, IIS, Httpd, Apache Tomcat |
| **Documentation Tools** | Confluence |
| **Operating Systems** | Microsoft Windows , Linux, UNIX. |
| **Tracking Tools** | Jira, Azure DevOps |
| **Code Scanning** | Sonar Qube, Jfrog X ray, Trivy |
| **Databases** | RDS, Cosmos DB, My SQL DB. |
| **Monitoring Tools** | Cloud Watch, Cloud Trail, Prometheus, Grafana |
| **Configuration & Automation Tools** | Ansible, Chef. |
| **Container Platforms** | Docker, Kubernetes, Open Shift. |
| **Monitoring Tools** | New Relic, Splunk, Datadog, Grafana, App Dynamics. |
| **Languages** | Python, Shell scripting. |
| **Cloud Platforms** | AWS. |
| **Version Control Tools** | GiHub, Git Lab, Bit Bucket. |
| **Infrastructure-as-code** | Terraform, CloudFormation |

**WORK EXPERIENCE**

**Client: Dish Network, Colorado, USA**

**Role: AWS DevOps Engineer | June 2021 - Till Date**

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**Responsibilities:**

* Responsible for Setup and build AWS infrastructure using resources **VPC, EC2, ELB, S3, RDS, Dynamo DB, IAM, EBS, Route53, SNS, SES, SQS, CloudWatch, CloudFront, Security Group, Autoscaling** and **RDS** using **CloudFormation** templates.
* Handling **AWS Cloud Operations** almost all of the **AWS stack.**
* Used enterprise architecture in AWS (**Control Tower, AWS Organization**) and managed access control through **SSO, SCP** policies.
* Provided high durability of the available data using data storage in the **AWS S3** bucket, versioning **S3**, lifecycle policies. Also, web hosting the data from the **S3** bucket by creating URLs.
* Creation of **gitlab-ci.yml** file for kicking build process in stages that run in docker container.
* Added the **CloudFormation** template into **GitLab** for versioning as part of the continuous integration process with **Alfred** tool.
* Managed **Ansible** Playbooks with **Ansible** modules, implemented **CD** automation using Ansible, managing existing servers and automation of build/configuration of new servers.
* Container management using **Docker** by writing **Dockerfiles** and set up the automated build on **Docker HUB** and installed and configured **Kubernetes**.
* Implemented application security testing procedures, including SAST, DAST, and SCA, to identify vulnerabilities in the codebase and infrastructure.
* Deployed **prisma cloud defender** as a daemonset and helm deployment on **EKS, ECS** fargate clusters for security vulnerability scanning on each and every nodes in the all AWS organizations.
* Working with **AWS CLI** and **API** to manage resources on AWS for many services such as a **EC2, S3, VPC, Lambda, Cloud formation, Cloud Watch, RDS, Dynamo DB, ELB, Auto-scaling**, **Route53**, **IAM** created **python** script using **AWS API** Calls to manage all resources deployed on **AWS**.
* Used **AWS Beanstalk** for deploying and scaling web applications and services developed with **Java, PHP and Node.js** on familiar servers such as **Apache** and **IIS**.
* Experience in **Blue/green deployment** strategy by creating new applications which are identical to the existing production environment using **CloudFormation** templates & **Route53** weighted record sets to redirect traffic from the old environment to the new environment via **DNS**.
* Configured **EC2** instances by writing **Terraform** templates, **Chef** cookbooks, recipes and pushed them on to **Chef** server. Wrote **Lambda** functions in **Python** for **AWS Lambda** and invoked **Python** scripts for data transformations and analytics on large data sets in **EMR** clusters and **AWS Kinesis** data streams.
* Used **Terraform** as infrastructure as code, execution plans, resource graph and change automation. Managed **AWS** infrastructure as code using **Terraform.**
* Created **Docker file** for each **microservice** and also changed some of the Tomcat configuration file which are required to deploy Java based application to the **Docker container.**
* Created clusters using **Kubernetes** and worked on creating many pods, replication controllers, deployments, labels, health checks and ingress by writing **YAML** files as well as managed Kubernetes charts using **Helm**.
* Created reproducible builds of the **Kubernetes** applications, managed **Kubernetes** manifest files and Managed Release of **Helm** packages and scheduled, deployed and managed Container replicas onto a node cluster using **Kubernetes.**
* Responsible for **Continuous Integration (CI)** and **Continuous Delivery (CD)** process implementation-using **Jenkins** along with **Python** and **Shell** scripts to automate routine jobs. Migrated Legacy applications to a repeatable **Continuous** **Integration** platform.
* Designed and developed **Continuous Integration & Continuous Delivery** pipelines using Code Pipeline, Code Build and Code Deploy plugins in Jenkins. Developed **Jenkinsfile** and automated the **Jenkins** pipeline using pipeline **Groovy** script for the applications.
* Responsible for installing **Jenkins** master and slave nodes and configure **Jenkins** builds for **Continuous Integration (CI)** and **Continuous Delivery (CD).**
* Utilized security assessment tools, such as static analysis tools, dynamic scanners, and open-source library scanners, to perform comprehensive security audits.
* Worked in an environment majorly involved in **Infrastructure as a code (IaaC)**, execution plans, resource graph and change automation using **Terraform**.
* Managed, Configured and scheduled resources across the cluster using **Elastic Kubernetes Service (EKS)/OpenShift.**
* Responsible for deploying and managing **Apache Kafka** clusters on **AWS**, including provisioning **Ec2 instances** or containers, configuring networking, and setting up authentication and authorization.
* Responsible for monitoring the health and performance of **Apache Kafka clusters** on AWS, including monitoring topics, partitions, and brokers, as well as tuning various Kafka configurations for optimal performance.
* Responsible for setting up data producers to ingest data into **Kafka** topics from various sources, such as applications, IoT devices, or external systems.
* Implemented data streaming solutions using **Kafka Streams** or other **Kafka clients** on AWS.
* Worked on **AWS Glue** to integrate data of both on-prem (**MY SQL, SQL**) **and cloud (Blob storage)** and applied transformations to load back to **Snowflake.**
* Performed the migration of large data sets to **Databricks (Spark),** create and administer cluster, load data, configure data pipelines, loading data from aws s3 to **Databricks** using **AWS Glue** pipelines.
* Ingested data in mini-batches and performs RDD transformations on those mini-batches of data by using Spark Streaming to perform streaming analytics in **Data bricks**.
* Worked on creating the infrastructure by using the terraform and initiated aws services like **EKS, ECR, VPC, EC2** ..etc.
* Experienced in developing **Ansible** roles and **Ansible Playbooks** for the server configuration.
* Experience in working with **GIT** to store the code and integrated it to **Ansible** to deploy the playbook.
* Experienced in using **Tomcat, JBOSS, WebLogic and WebSphere Application servers** for deployment.
* Expertise in Querying RDBMS such as Oracle, MySQL and SQL Server by using PL/SQL for data integrity and proficient in multiple databases like **MongoDB, CosmosDB, MySQL, ORACLE**.
* Experience using **CRONTAB** for job/task scheduling in Linux environment.

**Client:** **Charter Communications, Colorado, USA**

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| **Role: AWS/DevOps Engineer | Nov 2018 –May 2021** |

**Responsibilities:**

* Working with **AWS CLI** and **API** to manage resources on AWS for many services such as a **EC2, S3, VPC, Lambda, Cloud formation, Cloud Watch, RDS, Dynamo DB, ELB, Auto-scaling**, **Route53**, **IAM** created **python** script using **AWS API** Calls to manage all resources deployed on **AWS**.
* Used **AWS Beanstalk** for deploying and scaling web applications and services developed with **Java,.NET, PHP and Node.js** on familiar servers such as **Apache** and **IIS**.
* Experience in **Blue/green deployment** strategy by creating new applications which are identical to the existing production environment using **CloudFormation** templates & **Route53** weighted record sets to redirect traffic from the old environment to the new environment via **DNS**.
* Configured **EC2** instances by writing **Terraform** templates, **Chef** cookbooks, recipes and pushed them on to **Chef** server. Wrote **Lambda** functions in **Python** for **AWS Lambda** and invoked **Python** scripts for data transformations and analytics on large data sets in **AWS Glue** clusters and **AWS Kinesis** data streams.
* Used **Terraform** in AWS VPC to automatically setup and modify settings by interfacing with control layer.
* Created reproducible builds of the **Kubernetes** applications, managed **Kubernetes** manifest files and Managed Release of **Helm** packages and scheduled, deployed and managed Container replicas onto a node cluster using **Kubernetes.**
* Responsible for deploying and managing **Kubernetes** clusters using **Amazon EKS**, including cluster creation, scaling, upgrading, and monitoring. Have a deep understanding of **Kubernetes** concepts, such as **pods**, **services**, deployments, and **ingress**, and how they can be effectively used in **Amazon EKS**.
* Collaborated with development teams to review code for security flaws, provided actionable recommendations, and guided developers in implementing secure coding practices.
* Writing **Ansible** **Playbooks** with **Python** **Boto3** as a wrapper for configuration management of **AWS** nodes in the cloud environment and Tested **Ansible** playbooks on **AWS** instances using **Python** and involved in running **Ansible** Scripts to provision dev servers.
* Created **Docker file** for each **microservice** and also changed some of the Tomcat configuration file which are required to deploy Java based application to the **Docker container.**
* Created clusters using **Kubernetes** and worked on creating many pods, replication controllers, deployments, labels, health checks and ingress by writing **YAML** files as well as managed Kubernetes charts using **Helm**.
* Responsible for **Continuous Integration (CI)** and **Continuous Delivery (CD)** process implementation-using **Jenkins** along with **Python** and **Shell** scripts to automate routine jobs. Migrated Legacy applications to a repeatable **Continuous** **Integration** platform.
* Designed and developed **Continuous Integration & Continuous Delivery** pipelines using Code Pipeline, Code Build and Code Deploy plugins in Jenkins. Developed **Jenkinsfile** and automated the **Jenkins** pipeline using pipeline **Groovy** script for the applications.
* Responsible for installing **Jenkins** master and slave nodes and configure **Jenkins** builds for **Continuous Integration (CI)** and **Continuous Delivery (CD).**
* Creating and Implementing **branching** & **merging** strategy with multiple branches. Used **Git** as source code management repository to keep track of version changes. Implemented and Maintained the Branching and **Build/Release** strategies utilizing **GIT** source code management.
* Installed and configured **GIT** and communicating with the repositories in **GITHUB** and Created and maintained **Subversion/GIT** repositories, branches and tags.
* Designed and scripted using **MAVEN** for (J2EE, Web Services, Reusable JARS, Web Client and Open Source) in creating **MasterBuild.xml**, **Build. Properties** &**Pom.xml** files and provided technical support to development team for compilation problems.
* Actively advocated for the adoption of the OWASP Application Security Verification Standard (ASVS) as an internal standard to ensure consistent security practices across the organization.
* Implemented and maintained the monitoring and alerting of production, corporate servers and storage using **AWS CloudWatch** for efficiency.

Created **Python** scripts to automate AWS Services which includes **ELB, Cloud front, Lambda**, database security and application configuration also Developed them to take backup of **EBS** volumes using **AWS Lambda, CloudWatch**.

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| **Client: Urban Outfitters, Pennsylvania, USA**  **Role: AWS/DevOps Engineer | Apr 2017 – Oct 2018** |

**Responsibilities:**

* Experience in Software Integration, Configuration, building, automating, managing and releasing code from one environment to another environment and deploying to servers.
* Working on multiple **AWS** instances by setting services like **Route53, SES, SQS, SNS** and created and administered DNS system using **Route53**.
* Worked with full AWS stack (**Lambda server-less, IAM, Blue-Green deployment**).
* Running Container Workloads in OpenShift On-Prem Private Cloud.
* Provisioned the highly available EC2 instances using **Terraform** and **Cloud Formation** and wrote new plugins to support new functionality in Terraform.
* Researched and developed scalable Linux deployments on AWS via **CoreOS** and **Docker** and used **Docker** Compose to develop dependent instances to be deployed in the **EC2** platform.
* Supported the implementation and maintenance of secure DevOps practices, including SCM, CI/CD automation, and AppSec testing tools.
* Experience with **S3** Bucket services like creating buckets, managing policies, configuring buckets with permissions, logging, versioning and tagging and used **S3** Bucket and **Glacier** for storage and backup on AWS.
* Worked on **AWS Cloud Watch** for monitoring the application infrastructure and used **AWS email services** for notifying & configured S3 versioning and lifecycle policies to and backup files and archive files in Glacier.
* Worked on migrating the on-premises application from its physical Storage Racks to **AWS** by using **EC2, S3**.
* Served application data using **Lambda** functions to store data in NOSQL database **Dynamo DB.** Configured REST API's using API Gateway that hit **lambda** which in turn invokes lambdas to do necessary operations.
* Installed Redshift on AWS and imported the legacy data from Oracle to Redshift. Participated in integration of applications with existing API’s.
* Implemented and maintained **Ansible** configuration management spanning several environments in **VMware** and AWS cloud.
* 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.
* Developed and maintained automated security test suites, enabling regular vulnerability assessments and efficient remediation processes.
* Created **Ansible** playbooks to automatically install packages from a repository, to change the configuration of remotely configured machines and to deploy new builds and various automation purpose, file copy, permission changes, configuration changes, path specific folder creation.
* Experience in working in .Net application and **branching**, **Tagging**, **Release** Activities on Version Control Tool like **GIT** and **Subversion (SVN).**
* Experience in resolving issues of merge conflicts and develop Custom Scripts to monitor repositories and Server storage.
* Installed **Nexus** repository tool to maintain the artifacts/dependencies jars.
* Involved in development of test environment on **Docker** containers and configuring the Docker containers using **Kubernetes**.
* Assisted in the development and deployment of DevSecOps solutions tailored to meet the specific security requirements of business applications.
* Knowledge of **Splunk** content development with the ability to create queries and dashboards.
* 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: Chico’s, Sacramento, CA.**

**Role: Linux Administrator | Dec 2013 to Dec 2016**

**Responsibilities:**

* Installing and configuring **Linux** operating systems on servers or workstations, including setting up user accounts, file systems, network configurations, and security settings.
* Monitoring system performance, availability, and security on an ongoing basis, and performing regular system maintenance tasks such as updates, patches, and backups to ensure smooth and secure operations.
* Managing user accounts, permissions, and access controls, and providing technical support to users for Linux-related issues.
* Installed the latest patches for **Oracle on Red hat Linux servers**, Configured and administered Send mail, Samba, Squid servers in Linux environment.
* Set up the **Linux Cron jobs** for automating various build related jobs and application data synchronization jobs.
* Configuring and managing network interfaces, protocols, and services such as **DNS, DHCP, and VPN** on Linux systems.
* Responsible for building **Linux OS** servers using **kickstart automation application** .
* Configured Kickstart and Jumpstart servers to initiate installation of **RedHat Linux** and **Solaris** on several machines at once.
* Updated previous LDAP tools to work with version of **Ruby Rails**.
* Involved in Installing, Configuring and Upgrading of **RedHat Linux AS 4/5, Solaris 9/10** operating systems.
* Performed automated installations of Operating System using kickstart for **Red Hat Enterprise Linux5/6 and Jumpstart for Solaris 9/10 Linux.**
* Administered and supported distributions of Linux, including Linux Enterprise Desktop, SUSE Linux Enterprise Server, RedHat and Solaris.
* Install, maintain and upgrade **Drupal** and **Word press** on **LAMP** stack and Configured LAMP Stack on Unix/Linux servers.
* Worked on Linux Package installation using **RPM** and **YUM**, provisioned system with LVM.
* Developed, customized and build packages on **Solaris** and **rpms** on Linux for deployment on various servers through Software Development Life Cycle.

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| **Client: Suneratech, Hyderabad, India.**  **Role: Linux Administrator | Aug 2012 to Sep 2013** |

**Responsibilities:**

* Installed and configured **RHEL, Solaris** and **Windows Servers.**
* Monitored, analyzed, and responded to security events utilizing security event management and reporting tools.
* Worked on **account, user and group administration, Permissions policy management and quota implementation**.
* Installed, configured, supported and security implementation on SSH, NIS, DNS and HTTPD.
* Implemented and maintained server virtualization using **VMware** and **Oracle Virtual Manager**.
* Coordinated with application team in installation, configuration and troubleshoot issues with **Tomcat server**.
* Created virtual machine using **Oracle Virtual Manager, creating server pool, VM cloning. Conceived, Designed, Installed and Implemented CI/ CD automation system**.
* Participated in setup **Storage Area Network (SAN)** and **NAS** and file system backup and restore.
* 24x7 on-call rotation for support of production systems.
* Developed Ansible Playbooks to manage multiple host nodes to Upgrade Softwares.