**Sandeep Kumar Chandragiri**

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**PROFESSIONAL SUMMARY:**

* Lead DevOps Engineer with 9+ years of experience in AWS/Build/Release/Deployment/Operations (DevOps) Engineer, in-depth knowledge of Cloud Computing strategies, Software Integration, Linux Administration, Configuration, Production support, expertise in the areas of Build and Release management, CI/CD Pipelining, DevOps tools like Jenkins, Ansible, Kubernetes and Docker.
* Hands On experience with AWS cloud services like IAM, S3, EC2, Lambda, DynamoDB, EBS, ELB, DNS, Route 53, AMI, VPC, CloudWatch, Auto scaling, SNS, SQS, Security Groups, CloudFront, CloudTrail, CloudFormation, ECS, EFS, RDS, WAF and Glacier.
* Experience with designing and configuring secure Virtual Private Cloud (VPC) through private and public networks in AWS by creating various subnets, routing table, Network ACL, NAT gateways.
* Developed and Implemented Kubernetes manifests, helm charts for deployment of microservices into k8s and EKS clusters.
* Established infrastructure and service monitoring using Splunk, Prometheus and Grafana.
* Created Docker containers to build, ship and run the images to deploy the applications, and worked on several Docker components like Docker Engine, Docker-Hub, Docker-Compose, Docker Registry and Docker Swarm.
* Implemented a production ready, load balanced, highly-available, fault-tolerant Kubernetes infrastructure.
* Responsible for setting up databases in AWS using RDS and configuring instance backups to S3 bucket.
* Excelled on creating AMI (AWS Machine Images) that utilizes ELB (Elastic Load Balancer) and Auto Scaling.
* Implemented a 'server less' architecture using Lambda.
* Experience in designing, configuring, and deploying Amazon Web Services for applications using the AWS stack (including EC2, S3, RDS, Cloud Formation, Cloud Watch, SQS, and IAM) focusing on high availability, fault tolerance, and auto - scaling.
* Experience in building sophisticated and highly automated AWS infrastructure using automation frameworks such as CloudFormation and Terraform.
* Experience writing Terraform manifest files to deploy infrastructure on AWS cloud.
* Diverse knowledge on AWS Developer Tools like AWS Code Commit, AWS Code Deploy, AWS Code Pipeline.
* Written Kubernetes manifest files for application deployment, namespace, service and stateful sets (DB deployment).
* Utilized AWS ECR as docker image repository and used AWS ECS to deploy docker containers to AWS Fargate and on EC2 instances.
* Hands on experience on writing Docker-compose files to setup microservices architecture in dev/test environments.
* Involved heavily in setting up the DevSecOps CI/CD Jenkins pipeline using Jenkins, Maven, Gradle, sonarqube, trivy, GitHub, Ansible, Ansible Tower in AWS Cloud.
* Extensively worked on Jenkins by installing, configuring and maintaining for continuous integration (CI) and for End-to-End automation for all build and deployments.
* Good understanding on building and maintaining cloud infrastructure according to AWS "Well-Architected" principles.
* Virtualized the servers using Docker for the test environments and dev-environments needs, also configuration automation using Docker containers.
* Installed and maintained oracle DB through AWS RDS platform. Good knowledge on maintaining DB and executing SQL queries.
* Designed, developed and deployed applications on to several cloud-based solutions using configuration Management tool like Ansible.
* Experience in writing playbooks for Ansible and deploying applications.
* Experience in branching, tagging and maintaining the version across the environments working on Software Configuration Management (SCM) tool like git.
* Ability to build deployment, build scripts and automated solutions using scripting languages such as Shell scripting, Bash.
* Worked on web/App servers like Apache Tomcat/HTTP, Nginx, JBoss to deploy code.
* Worked on monitoring tools like Nagios to health check the various deployed services.
* Developed APIs to share data with cross functional teams using Flask frameworks.
* Developed Rest API to processes the data from DB to another Rest Service.
* Extensive networking knowledge - TCP/IP, firewalls, VPNs, Subnetting, DNS, SSL, SSHD, DHCP, FTP & load balancers.
* Worked as Linux administrator performed installation of patches, security fixes and packages on Linux servers.

**TECHNICAL SKILLS:**

**Cloud Platform** Amazon Web Services (AWS)

**Infrastructure as code** Terraform and Cloud Formation.

**Operating Systems** Linux (Red Hat, CENTOS), Ubuntu, Windows.

**Scripting** Shell, Bash, Groovy, PowerShell.

**Version Control Tools** GIT, GITHUB, Bitbucket

**Build Tools** Maven and Gradle

**Database** RDS, DynamoDB, Oracle

**Containerization Tools** Docker, ECS, Docker Swarm, EKS, Kubernetes

**Application Web Servers** Apache Tomcat, Nginx, JBOSS

**Identity Provider** AWS SSO

**Automation &**

**Configuration Tools** Ansible, Jenkins.

**Networking Protocols** TCP/IP, DNS, FTP.

**SAST and SCA tool:** SonarQube and Fortify

**Monitoring Tools** Nagios, AWS Cloud Watch, Dynatrace, Splunk, Prometheus and Grafana.

**PROFESSIONAL EXPERIENCE:**

**Deutsche Börse, NY Mar 2021 – Present**

**Lead Devops Engineer**

* Implemented AWS solutions using EC2, S3, RDS, IAM, Security Groups, EBS, Elastic Load Balancer, Auto scaling groups, ECS, SNS services in AWS. Developed and managed cloud VMs with AWS EC2 command line clients.
* Implemented Warm standby model for Disaster recovery.
* Responsible for design and implementation of various micro service-based APIs using AWS Lambda.
* Implemented AWS solutions like EC2, S3, IAM, Elastic load balancer (ELB), EBS, security groups, Auto scaling using Terraform templates.
* Worked with Terraform to create stacks in AWS and updated the templates as per the organization’s requirement on a regular basis.
* Implemented Route 53 by providing the domain name and create alias to the ELBs or web servers to achieve application web connection.
* Migrated on-premise servers to AWS cloud using AWS Application migration service (AWS MGN).
* Written automation infrastructure scripts in Terraform and CloudFormation.
* Developed and Implemented Kubernetes manifests, helm charts for deployment of microservices into k8s and EKS clusters
* Implemented a production ready, load balanced, highly available, fault tolerant Kubernetes infrastructure.
* Extensively involved in infrastructure as code automation. Managed and updated Infrastructure as code using CloudFormation.
* Used system manager (AWS SSM) for parameter store and configuration management using run command.
* Written custom IAM policies and attached to policies to roles and users.
* Developed APIs to share data with cross functional teams using Flask API frameworks.
* Developed Rest API to processes the data from DB to another Rest Service.
* Reduced cloud operational cost by implementing cost optimization solution by identifying and reducing mismanaged resources, eliminating waste, reserving capacity for higher discounts, and Right Sizing of computing services to run the application.
* Created Instance scheduler to start and stop EC2 instances as per the requirements which helps to control AWS resource cost by configuring start and stop schedules using AWS event bridge.
* Worked on AWS Lambda services for automating the process of taking EBS Snapshots every day.
* Configured S3 versioning and lifecycle policies to and backup files and archive files in Glacier.
* Utilized AWS ECR as docker image repository and deployed images on AWS ECS cluster with rolling updates with zero downtime of application.
* Update port numbers in NACL and security group for security purposes. So that the connection needs to made using the defined port number.
* Created Application load balancer and Auto scaling to route the application traffic to the servers equally in various subnets and increase the EC2’s depend on the scaling policy.
* Migrated various Linux and Windows based applications from on-premises to AWS Cloud. Migrated the applications within AWS cloud between different accounts.
* Installed and maintained oracle DB through AWS RDS platform. Good knowledge on maintaining DB and executing SQL queries.
* Performed Branching, Tagging, Release Activities on Version Control Tool GIT (GitHub).
* Extensively worked on Jenkins CI/CD declarative pipeline jobs for end-to-end automation to build, test and deliver artifacts and docker images and deployed images using ECS Fargate.
* Used Ansible Playbooks to setup Continuous Delivery Pipeline. Deployed microservices and provisioned environments using Ansible Playbooks.
* Did automation with Ansible by writing the playbooks and deploying them onto the node machines. Also managed the state of all the node machines in a healthy way.
* Involved in functional usage and deployment of applications in various server using Apache Tomcat. Used Jenkins for continuous integration and deployment into Tomcat application server.
* Worked on setting up DevSecOps Jenkins pipelines to achieve Continuous Integration and Continuous Deployment methodologies for end-to-end automation.
* Virtualized the servers using Docker for the test-environments and dev-environments needs, and configuration automation using Docker containers. Created additional Docker Slave Nodes for Jenkins using custom Docker Images. Worked on all major components of Docker like, Docker Daemon, Hub, Images, Registry, Compose etc.
* Implemented a continuous Delivery Pipeline with Docker, Jenkins and GitHub. Whenever new GitHub branches are created Jenkins automatically attempts to build a new Docker Container from it.
* Experience with container-based deployments using Docker, working with Docker files, images, Docker hub and Docker registries, installation.
* Implemented microservice architecture in docker using docker-compose.
* Provided application support for the calypso application if any issues occurred and also upgraded the calypso application version.
* Worked on RDS, DynamoDB database tools for managing operational and transactional data in AWS.
* Used SonarQube for code quality test, report the critical code issues to developer after running code and also used trivy for container scan tools.
* Written scripts in Python and shell scripting to automate the tasks.

Tools: AWS, CloudFormation, Terraform, Jenkins, Maven, Nexus, Docker, GIT, Shell, Python, RDS, DynamoDB.

**Calypso, NY Jan 2020 – Mar 2021**

**Sr. DevOps Engineer**

* Configured container orchestration systems with Kubernetes for different environments and managed deployments. Also created secrets, services and deployed application containers as pods.
* Worked on migrating applications from physical servers to Kubernetes cluster and implementing Load balancer on Kubernetes for its instances.
* Created and managed a Docker deployment pipeline for custom application images in the cloud using Jenkins.
* Virtualized the servers using Docker for the test environments and dev-environments needs, also configuration automation using Docker containers.
* Created Micro services architecture using Docker compose for test environments. Written YAML files for Docker compose.
* Worked on AWS services in implementation and developing AWS EC2 instance, Amazon S3, Amazon RDS, Amazon Simple DB, and Amazon Elastic Load Balancing.
* Configured Jenkins to implement the CI process and integrated the tool with build tools like Maven and Gradle.
* Defined download dependencies in Maven (Pom.xml) file and integrated Maven with Jenkins to manage and deploy project related tags and administrated Artifactory repository.
* Used Jenkins to create CI pipeline for Artifactory using the plugin provided by JFrog.
* Designed, Installed and Implemented Ansible configuration management system and used Ansible to manage Web applications, Environment’s configuration Files, Users, Mount points and Packages.
* Automated the continuous deployment and software installations on multiple servers using Ansible.
* Upgraded calypso application from v14, v15 to v16.
* Written Ansible playbooks in YAML script and also created roles in ansible for deployment and installation purpose.
* Responsible for the building and deploying the artifacts into DEV, UAT and PROD Environments.
* Created Docker images using Docker files to support Containerization of applications.
* Developed Shell Scripts for automation purpose.
* Worked on Production support for the client application and make sure all services are running fine in the prod environment.

Tools: AWS, Terraform, Packer, Ansible, Docker, Docker Compose, Git, GitHub, Jenkins, Maven, Gradle, Artifactory, Shell, Bash, Apache Tomcat, JBoss.

**Qualcomm, CA Mar 2019 – Jan 2020**

**DevOps Engineer**

* Worked with various services of AWS: EC2, ELB, Route53, S3, Cloud Front, SNS, RDS, IAM, Cloud Watch, Cloud Formation, Elastic Beanstalk, CloudFront, WAF.
* Worked on Lambda service in AWS used to maintain a server less architecture.
* Used Amazon Elastic Beanstalk, automatically handling the deployment, from capacity provisioning, load balancing and auto-scaling along with SQS, SNS services for application health monitoring.
* Used Terraform to map more complex dependencies and identify network issues and worked with Terraform key features such as infrastructure as code, execution plans, resource graphs and change automation.
* Used Packer tool for creating custom AMI’s in AWS.
* Configured Jenkins to implement the CI process and integrated the tool with build tools like Maven and Gradle.
* Setting up Docker containers and orchestrated using Docker swarm.
* Installing and configuring the Docker swarm on EC2 instances.
* Defined download dependencies in Maven (Pom.xml) file and integrated Maven with Jenkins to manage and deploy project related tags and administrated Artifactory repository.
* Created pipeline jobs in Jenkins using Groovy script.
* Used Jenkins to create CI pipeline for Artifactory using the plugin provided by JFrog.
* ;Designed, Installed and Implemented Ansible configuration management system and used Ansible to manage Web applications, Environment’s configuration Files, Users, Mount points and Packages.
* Automated the continuous deployment and software installations on multiple servers using Ansible.
* Written Ansible playbooks in YAML script and also created roles in ansible for deployment and installation purpose.
* Created Docker images using Docker files to support Containerization of applications.
* Created Micro services architecture using Docker compose. Written YAML files for Docker compose.
* Developed Shell Scripts for automation purpose.

Tools: AWS, Terraform, Packer, Ansible, Docker, Docker Compose, Git, GitHub, Jenkins, Maven, Gradle, Artifactory, Shell, Bash, Apache Tomcat, JBoss.

**Fifth third bank, OH Jul 2017 – Mar 2019**

**Devops Engineer**

* Setting up the new build environment for various applications in Linux.
* Automated CI & CD pipeline using Ansible, Maven, Jenkins & GIT.
* Version control tool administration: set up git server, creating new repositories, adding new user to the repositories, creation of new version-controlled branches, troubleshooting version control tool errors.
* Created Branching, tagging of code delivery at required releases and Resolving Git conflicts issues.
* Performing build activities by using Maven, created and modified build configuration files including POM.XML. Dependencies and automation and used Jfrog for artifactory repository.
* Supported product release management and patch set release.
* Experience in setting up Jenkins from scratch and written pipeline in groovy.
* Created pipeline jobs using Jenkins and also created slave nodes using master/slave architecture in Jenkins to distribute the load of Jenkins jobs.
* Performed Continuous Build and deployments to multiple environments like Dev, QA, and Staging.
* Providing solutions to developers for check-ins, checkouts, build failure related issues.
* Deploy the War files in Apache Tomcat server.
* Interacting with developers to sort out issues related to Build Automation.
* Created Docker images using Docker files to support Containerization of applications.
* Deployed various applications through Docker containers using custom image and also used Docker hub.
* Created playbooks using YAML script and also configured roles using ansible.
* Automate the different application in different servers by using ansible.
* Automated few tasks using shell scripting.

Tools: Git, GitHub, Maven, Jenkins, Ansible, Ansible Tower, Microservices Apache Tomcat, JBoss, Shell scripting.

**S&P Global, NY Jul 2015 – Jun 2017**

**Build and Release Engineer**

* Worked as Build and release engineer in field of release automation for java application to achieve continuous integration (CI) and continuous delivery (CD).
* Experience as a Build and Release Engineering in automating, building, deploying, and releasing of code from one environment to another environment.
* Build and release software baselines, code merges, branch and label creation and interfaced between development and infrastructure. Performed all necessary day-to-day Subversion support for different projects.
* Troubleshoot and resolved Build failures due to infrastructure issues reduced by 95% stabilizing the build process.
* Managed builds and modify Build scripts for Java based applications.
* Automated the Build & Deployment environment end -to-end using Jenkins.
* Responsible for the Plugin Management, User Management, Build/Deploy Pipeline Setup and End-End Job Setup of all the projects.
* Wrote shell scripts using languages like Bash to automate day to day administration jobs.
* Performed deployments and builds on various environments using Ansible continuous integration tool.
* Used SonarQube for code quality test, report the critical code issues to developer after running code.
* Providing first level support for application software issues in all environments, monitoring run-time environment using tools like Nagios.

Tools: AWS, Git, GitHub, Maven, Ansible, Jenkins, UNIX, RHEL, Bash, SQL, Tomcat, JIRA, SonarQube, Nagios, JFrog.

**State Street, MA Jul 2014 – Jun 2015**

**Linux Administrator**

* Strong Experience in LINUX/UNIX Administration expertise in managing user accounts, file systems, and network services.
* Build Yum and RPM repository Server for Development team to upload packages, Written UNIX Shell scripts for monitoring & clean up old files.
* Developed scripts for automating administration tasks like customizing user environment, and performance monitoring
* Configuring File System / Disk Management/Memory Management. Manage and maintain backup by using tar, zip and gzip. File Permissions. Accountable for User Administration i.e. Adding/Modifying/Deleting the User accounts.
* Adding, creating new users, groups and setup home directories and appropriate.
* Implemented day-to-day tasks in RHEL that include upgrading RPM's, configuring LVM filesystems, printing issues, connection/network issues etc
* Configured Logical Volume Manager (LVM) and also have knowledge on samba.
* Configured squid proxy server and also updated the config file to block sites.
* Production support of Apache, Apache HTTPD, JBoss, Tomcat including installation, configuration, management and troubleshooting.

Environment: RHEL, Linux, Shell Scripting, Squid Proxy server, Tomcat, Jboss.

**EDUCATION:**

* PGDM from All India management association, Bangalore in 2014
* B. Tech from Jawaharlal Nehru Technological University, Hyderabad in 2010

**CERTIFICATIONS:**

AWS Certified Solutions Architect - Associate