**Srinivasa M** 

**Sr. DevOps Engineer**

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**PROFESSIONAL SUMMARY:**

* **8+ Years** of Experience as**DevOps Engineer** and **Linux Systems Engineer (Redhat, CentOS and Ubuntu)** andConfiguration Management, Continuous Integration, Continuous Deployment, Release Management and Cloud Implementations.
* Expertise in AWS Resources like **EC2, S3, EBS, VPC, ELB, AMI, SNS, RDS, Lambda, Athena, Glue Crawler, Glue Studio, IAM, Route 53, ECS, Auto scaling, DataBrew, Cloud Formation, Cloud Watch, Security Groups.**
* Used AWS Redshift, S3, Spectrum and **Athena services** to query large amount data stored on S3 to create a Virtual Data Lake without having to go through ETL process.
* Hands on Experience with ETL tools such as **AWS Glue** and Using Data pipeline to move data to AWS RedShift.
* Experience in optimizing volumes, EC2 instances and created multiple VPC instances and created alarms and notifications for EC2 instances using **Cloud Watch**.
* Experience in Working with **IAM** service creating new **IAM users & groups**, defining roles and policies and Identity providers.
* Supported 300+ AWS cloud instances running Ubuntu, Redhat and windows environments.
* Experienced working with Services like Service Fabric Clusters, SQL servers, Cosmos DB, ARM, Virtual machines, and Storage.
* Experience in using **Tomcat Web Server** and **JBOSS, WebLogic and WebSphere Application Servers** for deployment, containerization (orchestration) using **Docker** & **Kubernetes.**
* Proficient in **Kubernetes** to manage containerized applications using its **nodes**, **Config Maps**, **selector**, Services, and deployed application containers as **Pods**. Experience in installing and maintaining **Kubernetes on-prem cloud servers**, **configure master** and **slave nodes** to establish the cluster.
* Used **Kubernetes** to automate the deployment, scaling and operations of application containers across clusters of hosts. Focused on containerization and immutable infrastructure by using docker community edition along with **Kubernetes** for automation.
* Extensively used **Kubernetes** charts using **Helm** and created reproducible builds of the **Kubernetes** applications, managed **Kubernetes** manifest files and managed releases of **Helm** package.
* Experience in **Installing and configuring Kubernetes for Orchestration of Docker Images** and Cluster Container management on AWS using **Kubernetes Operations** (KOPS).
* Extensively worked on **Hudson and Jenkins** for Continuous Integration and Excellent hands-on experience on configuration management tool like **Chef, Puppet and Ansible**.
* Expertise in integrating **Terraform with Ansible**, **Packer** to create and **Version the AWS Infrastructure**, designing, automating, implementing and sustainment of Amazon machine images (AMI) across the **AWS Cloud environment.**
* Extensively worked with Scheduling, deploying, managing container replicas onto a node using Kubernetes and experienced in creating Kubernetes clusters work with **Helm charts** running on the same cluster resources.
* Proficient knowledge with Helm charts to manage and release of **helm packages.**
* Implemented to reprocess the failure messages in **Kafka** using offset id. Virtualized the servers using Docker for the test environments and dev-environments needs, also configuration automation using Docker containers.
* Management and design of Integrated build pipelines using continuous integration workflows such as **Jira**, **Git, Stash, Bamboo, Jenkins, Docker, Kubernetes**, **Artifactory** and **Nexus.**
* Experience in writing **Jenkins** Pipeline Groovy Scripts for Continuous Integration and build workflows and used **Jenkins** for uploading Artifacts into **Nexus** Repository.
* Experience in Administration / Maintenance of source control management systems such as **Git Hub** and **Subversion** [**SVN**].
* Migrated Version Management Systems **CVS -> SVN, SVN -> CVS and SVN ->Git**.
* Expertise in TCP/IP, AD, DNS, DHCP, WAN, LAN, SMTP.
* Experience in Automated processes with custom built **Python, Ruby, Bash, Perl & Shell scripts**.
* Experience with **Oracle, MySQL and Server DB Tasks** and **Kafka** Architecture.
* Hands on experience working on Linux, Unix, and Windows Environment.
* Experience **with Linux Administration, Cloud Infrastructure management, Software Configuration Management** in various environments like **QA, DEV, TEST, PROD, UAT** for various releases with designed strategies.

**TECHNICAL SKILLS:**

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| --- | --- |
| **Operating Systems** | Red Hat Enterprise Linux, Solaris, Ubuntu, Windows 10, Mac OS, CentOS |
| **Virtualization Technologies** |  VMware, Windows Hyper-V, Xen, Virtual Box, Power VM, Oracle |
| **Scripting Languages** | Python, Bash, Shell, Ruby, Perl, PHP, JSON, HTML |
| **Application/Web Servers** | Apache Tomcat, NGINX, HTTP, Web Logic, Jboss, Terraform |
| **Databases** | Oracle MY SQL, NoSQL, SQL Server, PostgreSQL, RabbitMQ, MongoDB |
| **Web Technology** | XML, HTML5, PHP, CSS, Java Script, Servlets, Django, JSP, Bamboo |
| **Automation/Monitoring tools** | Ansible, Chef, Jenkins, Splunk, Puppet, Nagios, Nexus, Zabbix, New Relic |
| **Source/Version Control Tools** | GIT, BIT BUCKET, GITLAB, Subversion (SVN), Clear Case, JIRA |
| **Cloud Services** | AWS, Azure, Containerization (Docker, Kubernetes), GCP, PCF |
| **Build Tools** | Maven, Gradle, Ant, SonarQube, Stash, Vagrant, Redis |

**CERTIFICATIONS:**

* Achieved theSolutions Architect Associate Certification from **Amazon Web Services**.

 <http://aws.amazon.com/verification>

* Achieved the **Microsoft Technology Associate: Database Fundamentals**

<https://mcp.microsoft.com/Anonymous//Transcript/Validate>

**PROFESSIONAL EXPERIENCE:**

**Client:** Carfax, VA (**OCT 19 – PRESENT )**

 **Role:** Sr. DevOps Engineer

* Responsible for Automating, Configuring, and deploying instances on AWS, Azure environments, and Data centers, also familiar with **EC2**, **Cloud watch**, **Cloud Formation** and managing security groups on AWS.
* Creating **S3 buckets** and managing policies for S3 buckets and utilized and **S3 bucket and Glacier** for storage and backup on AWS.
* Implemented a 'server less' architecture using **API Gateway, Lambda, and Dynamo DB** and deployed **AWS Lambda code** from Amazon S3 buckets. Created a **Lambda Deployment** function and configured it to receive events from your **S3 bucket**.
* Designed the data models to be used in data intensive **AWS Lambda applications** which are aimed to do complex analysis creating analytical reports for end-to-end traceability, lineage, definition of Key Business elements from Aurora.
* Responsible for performing POC on **AWS Athena** Service.
* Responsible for migrating the data from production server to **AWS** data warehouse using **redshift**, have used **cloud watch** to monitor the services, for **high availability** and fault tolerant configured autoscaling and **ELB**.
* Used **EC2** as virtual servers to host Git, Jenkins, and configuration management tool like Ansible. Converted slow and manual procedures to dynamic API generated procedures.
* Configured traffic manager to route incoming traffic for **high performance** and **availability.**
* Have excellent working knowledge of Cloud networking concepts, including the management, and troubleshooting of **VPC’s/VNets, IP Address Ranges, Route Tables, Subnets, Load Balancers, Auto-scaling Groups/VM Scale Sets, and Security Groups.**
* Worked with Terraform to create AWS components like **EC2, IAM, VPC, ELB**, Security groups.
* Used Terraform to map more complex dependencies and identify network issue.
* Educate developers on how to commit their work and how can they make use of the **CI/CD pipelines** that are in place.
* Setup full **CI/CD pipelines** so that each commit a developer makes will go through standard process of software lifecycle and gets tested well enough before it can make it to the production.
* Helped individual teams to set up their repositories in bit bucket and maintain their code and help them setting up jobs which can make use of **CI/CD environment.**
* Good Experience in using **cloud migration tools** like Snowball, direct connect for migrating data from on-premises datacenters to **AWS Cloud** and implemented **Terraform modules** for deployment of various applications across multiple cloud providers and managing infrastructure.
* Worked on **Ansible** to configure the servers, deploy software, and orchestrate continuous deployments for zero downtime rolling updates.
* Worked on **Ansible Tower** to automate repetitive tasks, managing complex network deployments by adding control and proactively manage changes and delegation to **Ansible** powered environments.
* Implemented Continuous Delivery (CD) framework using **Jenkins, Maven, Docker, GIT, Nexus** in Linux environment for 70+ micro services in each environmental setup.
* Created several pods and services using **Master and Minion architecture** of Kubernetes and developed microservice onboarding tools leveraging **Python** allowing for easy creation and maintenance of build jobs and Kubernetes deploy and services.
* Orchestrated containers across multiple hosts, integrated **Kubernetes** with network, storage of security to provide a comprehensive infrastructure, mount and add storage to run**stateful** application.
* Wrote and executed various **MYSQL** database queries from python using **Python-MySQL connector** and **MySQL dB** package. Developed web applications using Python scripting language to design application more flexible.
* Automated the infrastructure for Kafka clusters different instances as per components in cluster for creating multiple EC2 instances & attaching EBS volumes as per instance type in different availability zones & multiple regions in AWS.
* Performed SVN to GIT migration and managed branching strategies using GIT flow workflow and managed User access control, Triggers, workflows, hooks, security, and repository control in Bit Bucket.
* Had Setup the GitFlow Process, code reviews, quality guidelines, & workflow management.
* Set up build environment integrating with **Git** and **Jira** to trigger builds using **Web Hooks** and **Slave Machines** by integrating **Docker container-based test infrastructure** to Jenkins **CI test flow.**
* Setup **SCM** Polling for Immediate Builds with **Maven and Maven Repository** (Nexus Artifactory) by installing Jenkins Plugins for GIT Repository.
* Responsible for Creation of gitlab-ci.yml file for kicking build process in stages that run in docker container.
* Setting GitLab repository and Runner for build automation.
* Configuring JUnit coverage report and Integration Test cases as part of build in GitLab Runner.
* Developed build workflows using Gradle, Gitlab-CI, Docker and OpenShift.
* Managed Kubernetes charts using Helm, and Created reproducible builds of the Kubernetes applications, managed Kubernetes deployment and service files and managed releases of Helm packages.
* Contributed to python library that deploys k8s clusters using helm charts, in-house tool (SSDT) for service deployments into the k8s clusters.
* Developed and Implemented Kubernetes manifests, helm charts for deployment of microservices into k8s clusters.
* Developed build and deployment scripts using **MAVEN** as build tools in **Jenkins** to move from one environment to other environments.
* Created scripts in **Python** to automate log rotation of multiple logs from web servers. Working with Python **ORM Libraries** including **Django ORM** to create Web applications.
* Worked with **Terraform** for **Infrastructure as code**, execute designs, **Resource Graphs**, change **Automation**, converted existing Terraform modules that had version conflicts to utilize cloud formation during terraform deployments, integrate various Terraform templates to create infrastructure for various applications.

**Environment and Tools**: Azure (Web Roles, Worker Roles, SQL Azure, Data Lake, Azure AD, SQL DW, Machine Learning, Data Factory and NSG’s, Azure Storage, Resource Groups, Office365, RBAC), AWS, OpenStack (Kilo/Liberty) Kubernetes, Virtual Machines, PCF, Ansible, Chef, Jenkins, Docker, Python, Power shell, MongoDB, Terraform, Micro servers.

**Client**: AT&T, Atlanta, USA (**JUNE 17 – SEPT 19)**

**Role:** DevOps Engineer

* Automated **AWS infrastructure** through infrastructure as code by writing various Terraform modules, scripts by creating **AWS IAM users, groups, roles, policies, custom policies, AWS Glue, Crawlers, Redshift clusters, snapshots of clusters, EC2, S3 buckets**.
* Involved in designing and deploying a large application utilizing almost all the AWS stack (IAM**, EC2, S3, Route 53, ELB, Code Commit, Code Build, Code Deploy, RDS, Glue, Dynamo DB, SNS, SQS, Cloud Formation, EBS**) focusing on high - availability, fault tolerance, and auto-scaling in **Aws cloud**.
* Responsible for migrating from **Bamboo** to **Jenkins** as continues integration tool.
* Trained graduate students in Information Technology on **Containerization and virtual machines**.
* Worked on the transition project, which involves migration activities from Ant to Maven to standardize the build across various applications.
* Administer and Maintain Source Code Repositories including **GIT**, **Bitbucket**, **Subversion**.
* Created and maintained several build definitions and publish profiles to handle automated builds in an **Agile / SCRUM** environment.
* Designed and implemented fully automated server build, management, monitoring, and deployment solutions spanning multiple platforms, tools and technologies including **Jenkins Nodes/Agent**
* Deployed continues delivery pipeline by using Jenkins, Artifactory, SonarQube, Tomcat, AWS.
* Migrate SVN repositories to GIT and administrate **GITLAB** to manage GIT repositories.
* Instituted Slack, **Git Flow** and modeled to improve code quality, test coverage, and communication.
* Involved in periodic archiving and storage of the source code for disaster recovery.
* Responsible for Plugin Management, User Management, regular incremental backups, and regular maintenance for recovery.
* Building/Maintaining **Docker** container clusters managed by **Kubernetes** **Linux**, **Bash**, **GIT**, **Docker**, on **GCP** and Utilized **Kubernetes** and **docker** for the runtime environment of the **CI**/**CD** system to build, test deploy.
* Established processes and tools to maintain code base integrity, including check-in validation rules and branch/merge processes.
* Documented project's software release management procedures with input decisions.
* Continuously **monitored** for the Disk Space on build machines with **Shell Script** scheduled to run as **Cron job** and sending email notification upon reaching a threshold value of disk usage.
* Managed the application, server configurations and automated the deployments of application to the IBM WebSphere application server.
* Install host **firewall** IP Tables for **RedHat Linux** and **Centos**
* Installed **Jenkins/Plugins** for **GIT Repository**, Setup **SCM** **Polling** for Immediate Build with Maven
* Developed build, auto build and deployment scripts using **MAVEN** as build tools in Jenkins to move from one environment to other environments and create new jobs and branches through Jenkins.
* Experience with container-based deployments using **Docker**, working with Docker images, **Docker** **HUB** and Docker registries.
* Proactively monitoring application health status.
* Virtualized the servers using the **Docker** for the test environments and dev-environment needs.

**Environment: AWS, Subversion, GIT hub, Shell, Perl scripts, Docker, Azure, Kubernetes, ANT, MAVEN, Jenkins, OpenShift, Chef, JIRA, Nexus Maven, LINUX, UNIX, Windows XP, Java, J2EE, Azure.**

**Client:** Wells Fargo, Charlotte, NC (**AUG 15 – JUNE 17)**

**Role**: Devops / Cloud Engineer

* Developed and implemented Software Release Management strategies for various applications according to the agile process.
* Imported and managed multiple corporate applications into Subversion (SVN).
* Participated in weekly release meetings with Technology stakeholders to identify and mitigate potential risks associated with the releases.
* Developed CLI tools in bash and python for developers to create application AMIs, run instances of their AMIs, and easily identify and access their AMI instances.
* Maintained and developed infrastructure using JENKINS and multiple AWS tools.
* Used Jenkins for Continuous Integration and deployment into Tomcat Application Server.
* Developed Perl and shell scripts for automation of the build and release process.
* Designed and built deployment using ANT/ Shell scripting and automate overall process using SUBVERSION and MAVEN.
* Used PUPPET for application automatic deployment and provisioning to different environments.
* Used ANT tool for the build and deployment procedure of scripts in UNIX.
* Configured and maintained Fiber Attached SAN connecting UNIX Servers to IBM ESS Storage device
* Participated in several DR exercises requiring the successful recovery of TSM Database, Business Critical Unix Servers, Oracle applications and EDI applications.
* Built and Deployed Java/J2EE to a web application server in an Agile continuous integration environment and automated the whole process.
* Created and maintained the Shell/Perl deployment scripts for TC Server/Tomcat web application servers.
* Responsible for the development and maintenance of processes and associated scripts/tools for automated build, testing and deployment of the products to various developments.
* Perform periodic system audits on all environments to ensure that only controlled versions of software reside all environments.
* Managed MAVEN project dependencies by creating parent-child relationships between projects.
* Responsible for the Plugin Management, User Management, Build/Deploy Pipeline Setup and End-End Job Setup of all the projects.

**Environment:** **AWS, Subversion (SVN), Jenkins, Java/J2EE, Ant, Maven, Puppet, Tomcat, Artifactory, Perl Scripts, Shell Scripts, Data Center, Unix, Windows.**

**Client:** AHEX TECHNOLOGIES PVT. LTD, INDIA (**JAN 13 – JULY 15)**

**Role:** Junior DevOps Engineer

* Implemented Puppet Master, Puppet Console and Puppet Agents, Create Puppet modules and Classes.
* Responsible for creating Puppet modules and Manifest files from scratch.
* Experienced in editing existing Puppet manifests and automate manual installation processes.
* Deployed Puppet dashboard for configuration management to existing infrastructure.
* Created Custom Puppet modules for bootstrapping new servers with required applications.
* Experienced in managing virtual instances and disks using Puppet.
* Configured and maintained Jenkins for Continuous Integration and end to end automation of all build and deployments.
* Designed and implemented continuous integration systems using Jenkins by creating Python and Perl scripts.
* Automated the build and deploy processes using Jenkins to move from one environment to environment.
* End-to-end design, setup, integration, and maintenance of CI/CD pipeline from source-control to production.
* Setup constant security checks as part of CI-CD pipeline and monitoring to prevent or respond faster to any events that might occur.
* Generated scripts in Maven, Perl, Bash Shell for build activities in QA, Staging and Production environments.
* Responsible for Plugin Management, User Management, regular incremental backups, and regular maintenance for recovery.
* Used ANT and MAVEN as build tools on Java projects for the development of build artifacts on the source code.
* Written Maven Scripts to automate the build process and managed the Maven Repository using Nexus tool and used the same to share the snapshots and releases of internal projects.
* Analyzed and resolved conflicts related to merging of source code for GIT.
* Used Nagios as a monitoring tool to identify and resolve infrastructure problems before they affect critical processes.
* Deployed the generated build to WEB and APP server using the continuous integration process to all Environments.
* Coordinated different teams across the globe to deploy different builds to different environments on parallel development for multiple projects.
* Experience in system analysis, design, development, and implementation of large to medium scales.

 **Environment**: **GIT, Nagios, Puppet, Jenkins, Docker, Maven, Perl, Shell, Python, Ant, Nexus**.

EDUCATION:

* Master of Science – George Mason University, Fairfax, VA (GPA-3.65)
* Bachelor of Science in Information Technology – MGIT (GPA- 3.5)