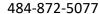**Sushmitha Rao**

gsushmitha533@gmail.com

484-872-5077

Senior DevOps Engineer

Professional summary:

- Around 8 years of experience in IT industry with major focus on Software Configuration, Build/Release Management, DevOps Engineering, Delivery Management Design, Cloud, Linux, and UNIX system Administrator.
- Managed servers on the Amazon Web Services (AWS) platform instances using Ansible Configuration management.
- Strong experience working with AWS Cloud platform and its features which includes EC2, VPC, EBS, AMI, SNS, RDS, Cloud Watch, Lambda, Cloud Formation, Auto scaling, IAM, S3.
- Experienced in setting up Amazon EC2 and setting up security groups.
- Experienced in managing Nexus and Art factory Repositories for the maven artifacts and dependencies.
- Experienced in using Build automation tools like ANT and MAVEN for building deployable artifacts from source code.
- Experienced in writing Ansible playbooks to launch and automate AWS instances on Ubuntu and Amazon Linux.
- Experienced in installing and configuring Apache, Tomcat, SQL and web hosting administration HTTP, SSH and RSH.
- Experienced with container-based deployments using docker and a good knowledge on working with docker images, Docker Hub, and Kubernetes.
- Good knowledge in working with source code management tools like GIT and SVN and continuous integration management using Jenkins and Bamboo.
- Expertise in deploying applications on to the servers using shell, ruby, bash, and groovy scripting.
- Experienced in development and configuration experience with software provisioning tools like Ansible, Chef and Puppet.
- Extensive experience with Version Control Management, Project Management, Work Item Customization, Build Services, Release Management, Reporting using TFS.
- Good Knowledge of chef cookbooks to manage configurations and automate installation process and developed automation scripting using chef to deploy and manage applications across Linux servers.
- Experienced in setting up backups and restorations automatically using Cron jobs.
- Versatile in dealing with Azure IaaS & PaaS – Virtual Machines, Cloud Services, Resource Groups, Express Route, VPN, Load Balancing, Application gateways, Auto-scaling, Traffic Manager, Azure Web Apps, Wed Roles, Worker Roles, Azure SQL, and Azure Storage.
- Experienced in working with deployment of applications to Apache Tomcat, WebSphere, Web Logic, JBOSS Servers
- Automated repetitive admin tasks including logging, monitoring, log rotation, and backups. Built custom RPMs, mirrored YUM and application repos.
- Experienced in managing cloud software deployments, with a focus on continuous integration and deployment using GitHub, Jenkins, GIT and Maven which requires developers to integrate code into a shared repository several times a day.
- Monitor and maintain the automated build and CI process to ensure correct build execution and facilitate resolution of build failures using ticketing tools like JIRA, Rally.
- Daily activities included delivering daily/nightly builds for the scrum teams, supporting teams with SCM requests, maintaining code stability using CI methodologies, code merging, deployments and troubleshooting other day-to-day issues.

- Worked on ASP.NET MVC architecture for view layer, the controller and model Layers and were coded using C#.NET.
- Elevated Network Systems such as Servers, Switches, Firewalls and Routers, and resolved network issues and skilled in Network protocols such as TCP/IP, and DNS, DHCP.
- Experienced in Installing, Configuring, Tuning, and troubleshooting of Red Hat EL 5.x, 6.x, 7.x and VMware ESX environment and extensive knowledge of Multiple Client Operating Systems such as Windows, UNIX and Linux.
- Good team player with interpersonal skills, dedicated and self-motivated, understanding the demands of 24/7 maintenance with good customer support experience.

Technical Skills:

Cloud Environment	Amazon Web Services (AWS), Azure.
Infrastructure as code	Terraform and Cloud Formation.
AWS Services	VPC, IAM, S3, Elastic Beanstalk, Cloud Front, Redshift, Lambda, Kinesis, Dynamo DB, Direct Connect Storage Gateway, DMS, SMS, SNS, and SWF.
Operating Systems	Linux (Red Hat, CENTOS & SUSE), Ubuntu, Solaris, DEBAIN, HP-UX, Windows.
Scripting	Shell Scripting, Groovy, Python, Ruby, Perl, and Power Shell.
Version Control Tools	GIT, GITHUB, TFS, Subversion (SVN), and Bit bucket.
Build Tools	Maven, JFrog, Nexus, and Ant.
Containerization Tools	AWS ECS, Docker, Kubernetes, Mesos.
Application Servers	WebSphere Application Server, Apache Tomcat, WebLogic, Nginx.
Automation& Configuration Tools	Chef, Puppet, Ansible, Jenkins, Bamboo.
Orchestration Tools	Kubernetes, Docker swarm.
Networking Protocols	TCP/IP, DNS, DHCP, NAT, WAN, LAN, FTP/TFTP, SMTP, LDAP.
Monitoring Tools	AWS Cloud Watch, Splunk, and ELK.
Bug Tracking Tools	JIRA, Rally.

Work Experience:

Comcast, Denver Co   **Aug 2022 - Present**

DevOps Engineer

Roles and Responsibilities:

- Worked at optimizing volumes and EC2 instances and created multiple VPC instances.
- Configured and managed monitoring tools like Splunk.
- Migrated the current Linux environment to AWS/RHEL Linux environment and used auto scaling feature and Involved in Remediation and patching of Unix/Linux Servers.
- Automated CI/CD with Jenkins, build-pipeline-plugin, Maven, GIT Set up Jenkins master/slave to distribute builds on salve nodes.
- Installation of MongoDB in different Operating System (Linux, Windows, FreeBSD) Manage and maintain MongoDB servers across multiple environments.
- Used Docker registry, creating Docker images and handling multiple images primarily for middleware installations and domain configuration.
- Installed and configured foreman with puppet, Salt Stack for auto-provisioning the Linux machines in AWS and VMware environments.

- 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, Cloud Watch.
- Create BladeLogic Packages, Jobs, Property Dictionary, Batches, Viewing the selected issues of web interface using SonarQube.
- Created a custom puppet module skeleton to use the same structure across all puppet modules. Implemented Puppet to separate data from puppet code.
- Automate the Build and deploy of all internal Java &.Net environments using various continuous integration tools and scripting languages (Python, Shell, and PowerShell). Troubleshot server's connectivity within BladeLogic.
- Managed Virtual servers (Ubuntu Linux and Windows) on AWS EC2 using Open-Source Chef Server.
- Created monitors, alarms, and notifications for EC2 hosts using Cloud watch.
- Configured S3 to host static web content including HTML pages, images, CSS files and Java script files and involving configuring S3 versioning and lifecycle policies to and backup files and archive files in glacier.
- Written cookbooks to install JDK and WebLogic. Managed roles, environments, data bags, cookbooks, and recipes in Chef, also worked on Ansible.
- Managed local deployment in Kubernetes creating local cluster deploying application containers.
- Utilized Oracle and MySQL DBMS, Amazon Elastic Cloud, Amazon's Elastic Map Reduce.
- Installed, configured, and maintained web servers like HTTP Web Server, Apache Web Server and Web Sphere Application Server on Red Hat Linux.
- Experienced with deployment Automation tools like Urban Code Deploy.
- Hands on experience on building cloud infrastructure from scratch using EC2, ASG, ELB, Route53, Dynamo and VPC. Chef is used as the provisioning tool along with Terraform.
- Extensively used Kubernetes charts using Helm and created reproducible builds of the Kubernetes applications, managed Kubernetes manifest files and managed releases of Helm packages.
- Implemented cluster services using Docker and Kubernetes to manage local deployments in Kubernetes by building a self-hosted Kubernetes cluster using Terraform and Ansible and deploying application containers.
- Created Ansible Playbooks in Ansible Tower and integrated Ansible tower with Jenkins to deploy code to different servers and wrote Ansible Playbooks for installing JBoss, WebLogic, Nginx and WebSphere for configuring load balancers and fail over.
- Handled continuous integration with Jenkins by using various plugins like Global Build Stats, Multiple SCMs, Parameterized Trigger and Configuration Slicing to increase the productivity.
- Setup SCM Polling for Immediate Builds with Maven and Maven Repository (Nexus Artifactory) by installing Jenkins Plugins for GIT Repository
- Created CI/CD pipelines and set up auto trigger, auto build and auto deployment with the help of the CI/CD tool like Jenkins.
- Used BladeLogic to patch and install applications to several different test labs as well as operational windows server systems, Analyze project requirements to setup BladeLogic Automation
- Experienced in setting up Terraform continuous build integration system.
- Worked on Managing the Private Cloud Environment using Octopus, Chef, Ansible Monitoring of web servers using NAGIOS monitoring tool.
- Building and Maintaining Docker container clusters managed by Kubernetes Linux, Bash, GIT, Docker, on GCP. Utilized Kubernetes and docker for the runtime environment of the CI/CD system to build, test and deploy. Monitored the applications on IBM WebSphere application server and integrated configuration of web apps with WebSphere, involved in the migration of applications from WebSphere 7.0 to 8.5
- Implemented automation deployment using Urban code and Cruise to promote major releases, monthly releases, and patches from Development.
- Worked with BMC BladeLogic Server Automation, Created BladeLogic configuration objects.

- User account management, worked with Perl, shell scripting, bash to automate administration tasks. Analyzed security-based events, risks, and reporting instances.
- Generated scripts for effective integration of JIRA applications with other tools.
- Branching and merging code lines in the GIT and resolved all the conflicts raised during the mergers.
- Defined and Developed plan for Problem & Incident management Process based on ITIL. Networking protocols such as TCP/IP, Telnet, FTP, SSH.

Environment: Red Hat Linux, AWS, S3, EBS, Ant, Gradle, Kubernetes, Elastic Load balancer (ELB), Docker, Octopus, VPC, IAM, Perl, shell, Cloud Watch, Glacier, Terraform, Jenkins/Hudson, Maven, Bash, Nagios, Bash Scripts, GIT, Splunk, Docker, Jira, Chef, Ansible.

Emids, New York   **October 2021- July 2022**

DevOps Engineer

Roles and Responsibilities:

- Experienced in creating, Configuring and maintaining Infrastructure on AWS Cloud services including Virtual Private Cloud (VPC), EC2, RDS, S3, Route 53, SNS, Cloud Front and IAM.
- Experienced in creating complex IAM policies, Roles, and user management for delegated access within AWS.
- Configured and managed Azure Virtual Machines, Blob Storage, Azure AD, Cosmos DB, Logic Apps, Data Factory, and CDN. Built highly available and scalable infrastructures optimized for security, compliance, and cost efficiency.
- Worked on Server less services (Azure Functions) creation and configured HTTP Triggers in Azure Functions with Application insights for monitoring and performing load testing on the Applications using the VSTS.
- Administered and supported GitHub Enterprise version control tool.
- Led on-prem to AWS cloud migrations leveraging right-sizing techniques, achieving 60% cost reduction and 2x application performance post-migration.
- Responsible for Configuring Kafka Consumer and Producer metrics to visualize the Kafka System performance and monitoring.
- Utilized Argo CD for declarative configuration management of complex Kubernetes environments, promoting infrastructure-as-code practices for consistent deployments.
- Experience with container systems like Docker and container orchestration like Kubernetes.
- Implemented infrastructure as code with CloudFormation and Terraform to automate provisioning of EC2, VPCs, S3, IAM, security groups, reducing deployment time by 50%.
- Leveraged Ansible and Ansible Vault to ensure secure management of web applications, environment configuration files, users, mount points, and packages.
- Implemented and managed CI/CD pipelines in Azure DevOps, enabling automated code builds, testing, and deployments, resulting in a significant reduction in manual deployment efforts.
- Automated infrastructure provisioning on AWS and Azure clouds using Terraform for consistent and reliable deployments. Built modular Terraform scripts to quickly spin up networking, compute, and storage.
- Implemented Azure Kubernetes Service clusters leveraging auto-scaling and cost optimization for container orchestration and optimal resource utilization.
- Managed and operated AWS EKS clusters, ensuring high availability, scalability, and reliability of Kubernetes-based containerized applications.
- Leveraging Helm charts for streamlined deployment and seamless upgrades of Kubernetes applications, ensuring availability, stability, and adherence to best practices in containerized DevOps environments.
- Implemented Argo CD for GitOps-based deployment to Kubernetes, configuring applications, pipelines, and repos to track desired state while leveraging health monitoring, auto scaling for continuous delivery.

- Performed Kubernetes cluster upgrades utilizing extensive canary testing, health monitoring, blue-green deploys, and graceful termination to ensure hardened clusters and minimal application downtime.
- Implemented monitoring and alerting with Splunk, Datadog to proactively identify and resolve performance issues, ensuring system reliability and minimal downtime.

Environment: Java/J2EE, AWS, Azure, GITHUB, SonarQube, Jenkins, Ansible, ANT, Maven, Argo CD, Terraform, Helm charts, ISTIO, VSTS, Shell (bash), PowerShell, Red hat LINUX, Splunk, Data dog, CentOS, UNIX, JIRA, Snow.

Safeway, Phoenix, AZ   **June 2020 - September 2021**

DevOps Engineer

Roles and Responsibilities:

- Experienced in creating, Configuring and maintaining Infrastructure on AWS Cloud services including Virtual Private Cloud (VPC), EC2, RDS, S3, Route 53, SNS, cloud Front, Cloud Watch and IAM.
- Experienced in creating complex IAM policies, Roles, and user management for delegated access within AWS.
- Worked with AWS S3 Initiation, created S3 buckets, and configured them with permissions, logging, versioning, and tagging and created new IAM users and groups, defined roles, policies and identify providers.
- Created EC2 instances in VPC and installed Applications. Worked on Identity Access Management. Created users, groups and assigned roles based on their duties.
- Responsible for design and maintenance of the Subversion/GITLAB, Stash Repositories, views, and the access control strategies.
- Collaborated with cross-functional teams to define and implement Service Level Objectives (SLOs) and Service Level Indicators (SLIs) to ensure the reliability and availability of critical systems, reducing downtime by 30%.
- Assisted developers in implementing GIT branching conventions, integrated Qualys scanning into CI/CD pipelines enabling automatic vulnerability assessments of container images pre-deployment.
- Created, tested and deployed an end-to-end CI/CD pipeline for various applications using Jenkins as the main Integration server for Dev, QA, Staging and Prod environments.
- Configured and fine-tuned Kafka brokers, producers, and consumers to meet specific application requirements, reducing latency by 15% and enabling seamless data integration within the DevOps pipeline, resulting in improved continuous integration and delivery (CI/CD) processes.
- Applied software configuration management processes, set up and maintained TFS/Git infrastructure, and automated build and deployment processes enabling continuous delivery.
- Deploying cluster on AWS with Jenkins, Docker pipeline implementation.
- Configured AWS cloud IAC using terraform and continuous deployment through Jenkins and automated the cloud formation using Terraform.
- Wrote Ansible Playbooks with Python SSH as the Wrapper to Manage Configurations of Nodes and Test Playbooks on AWS instances using Python.
- Implemented GitLab for version control of terraform modules and process documentation.
- Worked with Container management using Docker by writing Docker files and set up the automated build on Docker HUB and installed, configured Kubernetes.
- Implemented cluster services using Docker and Kubernetes to manage local deployments in Kubernetes by building a self-hosted Kubernetes cluster using Terraform and Ansible and deploying application containers.
- Pushed code to source control, Git and GitLab. Check code in and out of the Git repository.
- Implemented and improved monitoring and alerting systems using tools like Prometheus, Grafana, and ELK stack, ensuring proactive identification and resolution of performance issues, reducing downtime by 20%.
- Conducted post-incident reviews and root cause analysis to identify and address the underlying causes of incidents, implementing preventive measures to minimize the risk of similar issues in the future.
- Utilized ServiceNow to streamline incident, change, and release management processes ensuring efficient communication, tracking, and controlled deployment of changes.

Environment: AWS, Jenkins, GIT Lab, Ansible, Docker, Kubernetes, Terraform, Maven, Ant, Qualys, Packer, Python, Shell, Dynamo, SNOW, Windows, Prometheus, Grafana, ELK, Git, SVN, Linux, Nexus.

Code Mantra Chennai   **July 2018 – May 2020**

DevOps Engineer

Roles and Responsibilities:

- Responsible for maintenance of Continuous Integration and Continuous Deployment pipeline for developing an application environment and to manage AWS resources in cloud.
- Designed, configured, and deployed Amazon Web Services (AWS) for a multitude of applications using the AWS stack (EC2, Route53, S3, RDS, Lambda, Cloud Watch, EFS, S3 Glacier, Resource Access Manager, IAM), focusing on high-availability, fault tolerance, and auto-scaling.
- Managed and maintained highly available EC2 Instances using Terraform and wrote plugins that support new functionalities in Terraform.
- Implemented hybrid connectivity between Azure and on-premises using virtual networks and VPN.
- Created and managed S3 buckets for storage and used Glaciers to Archive data.
- Successfully configured AWS IAM policies for users, using Multi-Factor Authentication service for login authentication and used Transport Layer Security Protocol to protect data at transit.
- Created Lambda function to monitor the log files which will trigger the Lambda code when there are changes in log files.
- Maintained edge location to cache data with Amazon CDN (Content Delivery Network) using Cloud Front to deliver data with less latency.
- Worked on IPv4, IPv6 addressing, fixed length & variable length & subnet masking (VLSM), ARP, RARP, PING concepts, OSI and TCP/IP models.
- Worked in branching, tagging, and maintaining the version across the environments using SCM tools like GIT on Linux, Mac and windows platforms.
- Worked on Kubernetes for creating new projects and services for load balancing, managing Docker containers with multiple namespace version, and adding service to routes by accessing from outside, creating pods through new application and controlling, scaling and troubleshooting pods through SSH.
- Implemented a production ready, load balanced, highly available, fault tolerant, auto scaling Kubernetes infrastructure and micro service Container Orchestration.
- Deployed and maintained multi-container applications through Docker, orchestrated containerized application using Docker-compose and Kubernetes.
- Used Ansible and Ansible Tower as configuration management tool to automate repetitive tasks, quickly deploying critical applications.
- Installed and configured Jenkins for Automating Builds and Deployments through integration of Git into Jenkins to automate the code check-out thus providing an automation solution.
- Enabled continuous delivery through Deployment into several environments of Development, Test and Production using Maven and SonarQube.
- Created Maven Pom.xml to automate the build process for the new projects and integrated them with Nexus.
- Created tickets for bug stories and feature stories in JIRA with co-ordination of QA/BA team respectively and issued it to developers to fix bugs and include necessary feature add.
- Implemented Blue/Green pattern deployment methodologies and roll backs with zero downtime to deploy process in Tomcat using Ansible YAML scripts.
- Deployed, maintained, and administrated QA and production application servers, including Apache, Nginx and Tomcat. Monitored applications using Splunk.
- Installed Kafka manager for consumer logs and for monitoring Kafka metrics also this has been used for adding topics, partitions etc.

- Successfully generated consumer group lags from Kafka using their API.
- Successfully set up a no authentication Kafka listener in parallel with Kerberos (SASL) listener. In addition, I tested non-authenticated user (Anonymous user) in parallel with Kerberos user.
- Managed the Maven Repository using Nexus tool and used the same to share the snapshots and releases of internal projects.
- Worked on JIRA Customization with workflow schemes, workflows, permissions, User/Group access controls, notifications, screens, fields, issue types, various other scheme settings, post functions/ validators with workflow transactions, custom configurations with add-ons/plug-ins.
- Developed DevOps scripts in Python/BASH to automate the collection and analysis of MySQL.
- 3Participated in the on-call rotation, monitoring and troubleshooting day to day operations on AWS. Co-ordinated with the Offshore and Onshore teams for Production Release.
- Resolved system issues and inconsistencies in coordination with quality assurance and engineering teams.

Environment: Git, Ansible, Docker, Kubernetes, Jenkins, Maven, Nexus, Terraform, Python, Bash, Apache Tomcat, MySQL, JIRA, AWS Cloud, Splunk, Kafka, AWS (EC2, ECS, S3, EFS, IAM, Security groups, RDS, Lambda, S3 Glacier, Resource Access Manager).

KD Infotech, Hyderabad   **May 2016 – Jun 2018**

DevOps Engineer

Roles and Responsibilities:

- Created and maintained containerized micro services and configured private container registry on Microsoft Azure for Hosting Images and using Windows active Directory.
- Developed automation system using PowerShell and JSON templates to remediate the Azure services.
- Configured VMs availability sets using Azure portal to provide resiliency for IaC based solution and scalable sets using Azure Resource Manager to manage network traffic.
- Developed automated scripts using .NET framework in Visual Studio VSTS.
- Managed Azure Security groups and attached them to VM's and Subnets using Azure Portal and PowerShell scripts.
- Designed the Azure Data Factory Pipelines to move the data from On-Premises SQL Database servers to Azure SQL Database servers using the Azure Data Factory Copy tool and Self-Hosted Runtimes.
- Migrated the Micro Service Based applications from Virtual Machines to Docker containers and managed the clustered containers using Kubernetes.
- Developed the Pipelines in Jenkins to automate the .NET and java builds and to update DynamoDB during the releases.
- Worked in advocating, maintaining, and monitoring of Active Directory (AD) services infrastructure and Azure Active Directory (AAD) infrastructure, incorporated with periodic auditing, troubleshooting and performance.
- Established Azure Virtual Network (VNETs), storage containers and load balancers and Created Azure wed application projects, updated, and deployed ASP.NET web apps, web jobs using visual studio, TFS and Azure Resource Manager.
- Worked on creating the Kubernetes Pods, Services, ConfigMaps, Deployments and Rollouts by writing the yaml's and creating the resources using kubectl.
- Evaluated testing of Chef Recipes - Concept of Test-Driven Development for Infrastructure as a Code. Implemented Chef Cookbooks for OS component configuration to keep AWS server's template minimal.
- Administered databases using RDS and DynamoDB in AWS and executed the DML and DDL scripts.
- Worked with layout of project workflow/pipelines using Jenkins as CI tool, performed cleanup of file system using Shell scripting and configured various Cron jobs.
- Branching, tagging, Release activities and resolved conflicts using version control tool like TFS.

- Performed Continuous Integration by merging code into a central repository like Bitbucket and used CI server Jenkins to build and validate code with a series of automated tests.
- Worked on Jenkins to implement Continuous Integration and deployment into Web Logic Application Server.
- Created user stories and resolved user tickets using Rally.
- Dealt with a Web-app, Key vault, SQL Server DB, Storage Account, Redis Cache, Automation Account, Scheduler and Notification Hub.
- Used Nagios as a monitoring tool to identify and resolve infrastructure problems before they affect critical processes and worked on Nagios Event handlers in case of an automatic restart of failed applications and services.
- Supervised and worked with a team of DevOps engineers for infrastructure support on Azure, by using various automaton scripts that enable management of the Azure environment.
- Worked on JFrog repository management, created the maven repos and local repos to store custom artifacts built from Jenkins and VSTS.
- Developed Terraform scripts to build, change and version infrastructure as code using Azure as provider and launch multi-tiered stack to be provisioned and configured with Terraform scripts.
- Supervised and worked with a team of DevOps engineers for infrastructure support on Azure, by using various automaton scripts that enable management of the Azure environment.

Environments: Microsoft Azure (Including ASP, VNETs Web & Mobile, Blobs, Resource groups, Key Vault, Azure SQL, CouchDB, RabbitMQ), Bit bucket, Chef, Docker, Kubernetes, Jenkins, Maven, JFrog, Terraform, .Net, Ruby, Oracle Web Logic, Rally, Nagios, Dynamo DB, PowerShell.