**(IaaS) Sudheer Sripathi**

DevOps/Cloud Services Engineer

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## **Professional Summary:**

* IT professional with 7+ years of experience in Cloud Platforms, **DevOps** life cycle, Linux Administration and Software Development Life Cycles (**SDLC**).
* Experienced in Amazon Web Services **IAM, VPC, EC2, RDS, S3, AWS CLI, AMI, Route 53, API Gateways, SNS, AWS SQS, Elastic Load Balancing, Auto Scaling, .Net , CloudWatch, CloudTrail, CloudFront, Cloud Formation, AWS Ops Works and AWS Lambda.**
* Worked on templating Amazon Machine Images(**AMI**), creating Elastic Block Storage (**EBS**) snapshots to ensure backups and promote reusability. Assigned **Storage classes** to **S3** based on **Object Lifecycle** to reduce storage consumption cost.
* Experienced in using **Azure** in provisioning Microsoft Cloud Infrastructure. Configured **Azure** cloud Virtual Machines (**VM**), Storage and more resources with permissions using **Azure Active Directory**.
* Experienced in providing cloud Infrastructure (laas) using Microsoft **Azure**. Worked on creating Virtual Private Networks (**VPN**), Virtual network Machines (**VM**) and using Azure services like **Blobs**, **Tables**, **Message queues**.
* Experienced in deploying infrastructure as code with **Terraform** ensuring scalability and fault tolerance using **AWS** services like Elastic Load Balancer (**ELB**) and availability zones.
* Experienced in writing **python** scripts to perform maintenance tasks on **AWS** like taking backups, checking resource status and generating reports using **AWS Lambda**.
* Experienced in authoring **pom.xml** files to manage dependencies and plugins to build a project using various **maven** build lifecycles.
* Experienced with **containerization** and its tools like **Docker, Kubernetes.** Automatedbuilding **Docker-images** with **Dockerfile** by adding dependency layers to the images available on **DockerHub**.
* Experienced in writing **Docker** adhoc commands to monitor and maintain docker **containers**. Worked on launching, running and scaling **containers** in various modes like interactive, attached, detached.
* Experienced in **Container Orchestration** with **Kubernetes** using **Minikube, Kubeadm** to deploy applications on clusters using **Kubernetes objects** like deployments, services, replication controllers, sets.
* Experienced in monitoring **Kubernetes** object health using health **probes**. Also worked on creating and scaling objects based on the health of Kubernetes objects.
* Experienced in configuring and setting up **Jenkins** with plugins to implement (**CI/CD**) pipeline. Integrated DevOps tools like **AWS**, **Git**, **Maven**, **Ansible**, **Docker** and application servers onto pipeline in Jenkins.
* Experienced in automating build processes using **Jenkins**. Worked on developing **groovy scripts** to build and generate artifacts from **git** repositories using **maven** as part of **CI/CD , .Net**.
* Worked on setting up upstream and downstream dependencies for **Jenkins** jobs. Also labelled Jenkins slaves and grouped them together to provide high availability of resources in executing jobs.
* Worked with **Ansible** to execute tasks using various modules like networking, cloud, files and databases. Also worked on implementing the tasks in parallel using Async mode in configuring the machines simultaneously.
* Experienced in configuring machines on premise and on cloud platforms by writing **Ansible Playbooks.** Worked on **YAML** scripts and assigned **Ansible Roles** to perform tasks on nodes in a time efficient manner.
* Worked with Configuration Management tool **Chef**, setup **Workstations**, Bootstrapped Nodes, developed **Recipes** and **Cookbooks** and uploaded them to Chef-server. Managed configurations on nodes both on premise and on **AWS** cloud using **Chef Cookbooks** and **Chef Clients**.
* Worked with artifact repositories like **Nexus** and **Artifactory** in deploying artifacts onto web/application servers like **JBoss**, **Apache**, **Tomcat**, **WebLogic**.
* Experienced in parsing log data by distributing indexing on multiple machines on **Splunk**. Also worked on creating Dashboards and reports to monitor and manage infrastructure.
* Worked with **Nagios, AWS CloudWatch** to monitor network infrastructure to track and analyze real time performance, metrics and traffic of resources on cloud.
* Experienced in writing **bash** scripts to perform System Administrative tasks like monitoring CPU & Disk utilization, file access permissions and generating reports, logs of daily processes.
* Experience in building and working with **API**’s. Developed **RESTful API**’s in Java, JavaScript to establish communication for databases, web and other applications.
* Experienced in working with **JIRA** and managing project using JIRA issues like epics, story, spikes, defects and tasks. Worked with metrics and stats to observe progress from task level to project level and generated burndown charts, reports.
* A proactive IT professional with participation in software methodologies ranging from traditional **Waterfall** to highly adaptive **Agile** methodologies.

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| Operating systems | Unix, Ubuntu, Centos, RHEL, Windows |
| Cloud environments | Microsoft Azure,Amazon Web Services, GCP, OpenStack |
| Containerization tools | Docker, Kubernetes, Aws ECS. |
| Configuration tools | Ansible, Chef, Puppet |
| Continuous Integration tools | Jenkins, Bamboo |
| Build/Project tools | Apache Ant, Apache Maven, Gradle |
| Version control tools | GitHub, Atlassian Bitbucket, SVN |
| Repositories | Artifactory, Nexus, JFrog |
| Monitoring/logging tools | Splunk, Nagios, Elastic Search, Logstash, Kibana, Datadog |
| Collaboration tools | Jira, ServiceNow, Slack, confluence |
| Scripting | Shell, Bash, Python, Ruby, YAML |
| Databases | MySQL Server, Oracle, DynamoDB |
| Virtualization technologies | Oracle VirtualBox, VMware Workstation |
| Web services | Rest API, JAX-RS, JAX-WS, SOAP |
| Networking/Protocol | NFS, NIS, DNS, DHCP, IP, TCP, FTP, HTTP, HTTPD, SSH |
| Web Technologies | HTML, CSS, Bootstrap, XML, JSON, XSD, XSL, XPATH. |
| Application/Web servers | WebSphere, WebLogic Server, Red Hat JBoss, Apache Tomcat |

## **Technical Skills:**

## Work Experience:

**Client: SAP, Reston, VA Jan 2022–Present**

**Role: Sr. DevOps Engineer**

**Responsibilities:**

* Involved in serverless services (**Azure** Functions) where I created and configured **HTTP** Triggers in the **Azure** Functions with application insights for monitoring and performing the load testing on the application using the **VSTS** (Visual Studio Team Services).
* Created and implemented **ARM** (Azure Resource Manager) templates and deployed them using the **Azure** portal, also used **Azure** quick start templates for Cloud Infrastructure design and implementation to deploy Web applications on **Azure PowerShell** workflow.
* Maintained windows **Azure** services like PaaS, IaaS, and worked on storages like Blob (Page and Block), SQL Azure. Well experienced in deployment and configuration management, and virtualization.
* Worked on configuring various application related services like **Azure webapps, Azure App services, Azure Application insights, Azure Application gateway**, and other networking services like **Azure DNS, Azure Traffic Manager, analyzing Azure Networks**.
* Implemented **Azure** Active Directory for single sign-on access to thousands of cloud Saas applications like Office 365, Dropbox. Worked as Cloud Engineer, involved in configuration for **Web apps/Function apps, V-net integration, HCM, Application gateway, App Insights, Active directory, Azure Key Vault, Encryption and Security on Azure.**
* Worked with **Azure DevOps** to create all-inclusive **CI/CD** process. Build, deploy, and migrate infrastructure to Azure utilizing **ARM templates** and **terraform.**
* Worked with **Terraform** key features such as **Infrastructure as code, Execution plans, Resource Graphs**, Change Automation and Implemented **Terraform** reusable modules for deployment of applications across Azure.
* Orchestrated and migrated CI/CD processes using **Terraform** Templates and Containerized the infrastructure using **Docker**, which was setup in **Vagrant, AWS, and VPCs**.
* Created and managed **Docker** deployment pipeline for custom application images in the cloud using **Jenkins.** Experienced in creating **Docker images** and handling multiple images primarily for middleware installations and domain configuration.
* Configured applications that run **multi-container Docker** applications by utilizing the **Docker-Compose** tool which uses a file configured in **YAML** format and used **Kubernetes** to manage containerized applications using its nodes, config-maps, selector, services, and deployed application containers as Pods.
* Evaluated **Kubernetes** for **Docker** container orchestration and managed **Kubernetes** charts using **Helm** and created reproducible builds of the **Kubernetes** applications, templatize **Kubernetes** manifests, provide a set of configuration parameters to customize the deployment and managed releases of **Helm packages.**
* Used **Kubernetes** backend infrastructure to run microservices in production environment deployed on **Kubernetes clusters** and developed **Kubernetes** templates for multiple applications.
* Experience in managing **Ansible Playbooks** with Ansible roles. Used file module in Ansible playbook to copy and remove files on remote systems. Created inventory in Ansible for automating the continuous deployment.
* Used **Ansible** as configuration management tool, to automate repetitive tasks, quickly deploy critical applications, and proactively manage change.
* Deployed and configured **Git** repositories with branching, forks, tagging, and notifications. Experienced and proficient in deploying and administering **GitHub.**
* Automated **Java Builds** with **Maven** and Implemented multiple plugins for **Code analysis**, **Junit**, Code coverage, **PMD**, SonarQube etc. Installed and administered **Artifactory** repository to deploy the artifacts generated by **Maven.**
* Experience in alert handling, standard availability, and performance report generation. Experience in root cause analysis of post-production performance related issues through **Splunk** tool.
* Developed **Power Shell** scripts to automated web application servers, automation of the build and release process to automate certain processes for the smooth process of build tool.
* Experience in using **JIRA** for **bug tracking**, creating the dashboard for issues, and resolved system issues and inconsistencies in coordination with **quality assurance** and engineering teams.

### **Client: Southwest, Dallas, TX. Apr 2019 – Dec 2021**

**Role: Cloud/DevOps Engineer**

**Responsibilities:**

* Ensured **VPC** security by writing whitelists and blacklists using **AWS** traffic management features like **NACL**s and **Security Groups**. Also created **EBS** snapshots to save configured **AMI’s** on **EC2** instances.
* Used **AWS** **Route53** to route the traffic in and outside the AWS infrastructure. Placed **S3** buckets in Edge Locations using **AWS CloudFront** service to provide low latency responses to web requests.
* Developed **Terraform** modules to deploy data resources using platform agnostic configuration files. Also used Terraform to version infrastructure to make failure prone resources safe and secure.
* Created **containers** and automated building **Docker images** using **Docker file** on Docker. Worked on mapping and exposing of ports and volumes to make interactions amongst containers.
* Worked on managing docker images by pulling from **Docker hub** and pushing tagged local images to cloud for reusability and reproducibility.
* Implemented **Kubernetes** to deploy scale, load balance, scale and manage Docker containers with multiple name spaced versions.
* Accomplished a production ready, **load balanced, highly available, fault tolerant** Kubernetes infrastructure
* Created Clusters using **Kubernetes** and worked on creating many pods, replication controllers, services, deployments, labels, health checks and **ingress** by writing YAML scripts
* Implemented **CI/CD** pipeline to pull the code from git repository, build and deploy products as artifacts using tools like **git**, **maven** and **Artifactory** on **Jenkins**.
* Developed **groovy** scripts in **Jenkins** to automate the Integration and Deployment (**CI/CD**) lifecycle using **poll SCM**. Monitored **git** repository to trigger build, integration and deployments on push/pull requests using **Jenkins** pipeline.
* Implemented various testing methodologies to ensure code quality. Integrated testing into **CI/CD** pipeline on **Jenkins** using testing frameworks **SonarQube** and **JUnit**.
* Configured and setup **Chef** for configuration management using Chef Enterprise edition. Created workstations, setup Chef Server and Chef clients on cloud to automate the process of environment creation.
* Developed ruby scripts to author **recipes** and **cookbooks** by incorporating chef resources like package, cron, file, batch resources to setup compute instances on cloud infrastructure. Used **knife** to execute **cookbooks** and **recipes** to maintain desired configurations on chef clients.
* Automated deployment of artifacts onto **Apache server** residing on containers using **Chef**.
* Used **Maven** as build tool to generate archive files jar, war and ear files. Deployed the products onto web/application servers and managed the generated artifacts using **Artifactory**.
* Worked on **RESTful API** gateway to access and provide information from Databases and other internal web application services. Also, worked with **AWS API** services in gathering information about Cloud Resources.
* Managed cloud resources using **boto3** modules in **python** to perform customized and redundant tasks.
* Worked on **microservices** architecture by pulling and pushing code using **git**. Pulled code from **git** repositories to build code updates in distinct **git** branches and tagged the rollouts for quicker checkouts.
* Worked with **SQL** and **NoSQL** query languages for operational data transactions on AWS using Relational Database Service (**RDS**) and **DocumentDB**.
* Used AWS **CloudWatch** to monitor resource utilization and configured **SNS** to alert users on exceeding the thresholds and budgets setup on billing with the help of SNS topics, publishers and subscribers.
* Monitored Applications’ traffic, network packets, memory utilization and other log data using **Nagios.**
* Implemented **Agile** methodology using **JIRA** by creating workflows, progress charts and dashboards. Also used JIRA in tracking issues and raising tickets.

**Clint: Applied Materials, Austin, TX Jan 2018 – March 2019**

**Role: DevOps Engineer**

**Responsibilities**

* Worked with Amazon AWS Cloud Services**, (EC2, S3, EBS, ELB, Cloud Watch, Elastic IP, RDS, SNS, SQS, Glacier, IAM, VPC, Cloud Formation, Route53)** and managing security groups on AWS, focusing on **high-availability, fault tolerance, and auto-scaling.**
* Worked on **AWS cloud** to provision new instances, **S3 Storage Services, AWS EC2, Cloud watch** services and CI/CD pipeline management through Jenkins.  Support Design and implementation of the **continuous delivery** pipeline, using **continuous integration**, **continuous delivery, and automated** environment provisioning.
* Maintained the user accounts **IAM** Roles, **Route 53**(**CNAME**), **VPC**, **RDB**, **MongoDB**, **SQS** & **SNS** services in **AWS** cloud.
* Managed data warehouse using **Amazon RedShift** to analyze all data using **SQL** & existing business intelligence tools.
* Converted existing **AWS** infrastructure to serverless architecture (**AWS** **Lambda, Kinesis**) deployed via **AWS** **Cloud formation.**
* Provided **continuous improvement** to agile software development teams by working with **Jenkins** under the **CI/CD pipeline**. Integrated **Ant, Nexus, Jenkins**, SVN, Confluence and JIRA.
* Used Version Control tool, **SVN** to create branches and implement parallel development process. Implemented a GIT mirror for SVN repository, which enables users to use both **GIT** and **SVN.** Developed automation scripting in Python (core) using Chef to deploy and manage Java applications across Linux servers.
* Developed **Shell Scripts and Perl** for automation of the build and release process.  Developed custom solutions in **C# and PowerShell** to validate availability, consistency, and compliance with environments.
* Created artifact documents through the source code and internal deployment in **Nexus** repository.
* Implemented **Disaster recovery** project on AWS using various DevOps automation for CI/CD.
* Built and managed a highly available monitoring infrastructure to monitor different application servers and its components using **Nagios** with **Puppet** automation. Involved in editing the existing **ANT** files in case of errors or changes in the project requirements.
* Implemented the automated **Nagios** in **Ops** environment for alerts & email notifications using **Python** script & executed them through **Ansible**.
* Involved in **Splunk** search construction with the ability to create well-structured search queries that minimize performance impact. Implemented **JIRA** to track all issues pertaining to the software development lifecycle & integrated **JIRA** with repositories of **GIT** to track all code changes.

**Client: Xtrac Solutions, Salt Lake City, Utah Dec 2016 – Jan 2018**

**Role: Build & Release Engineer**

**Responsibilities:**

* As member of **Release Engineering** group, redefined processes and implemented tools for software builds, patch creation, source control, and release tracking and reporting, on **UNIX** platform.
* Worked in **Agile Project management** Process, **JIRA** for Issue Tracking and monitoring and with the Architects on SDLC process being the owner of post-development environments.
* **Administered RedHat Linux** 4.x/5 servers for several functions including managing **Apace Tomcat Server, Mail Server, MySQL database** and Firewalls in both development and production environments.
* Developing and maintaining the build environment, the source code control system and managing build packages using **GIT and GIT Hub**.
* For check in process used **Tortoise** SVN as a migration tool. Involved in migration of **Bamboo server, Art factory, Perforce & GIT server**.
* Worked on Branching, Tagging and Release Activities on Version Control Tools (**GIT**) and setting up the **GIT repos** for **Bamboo** build jobs.
* Integration of **Puppet** with **Apache** and developed load testing and monitoring suites in **Python**.
* Maintained multiple Modules in **Puppet** by converting production support scripts to **Puppet** **Manifests** to automate the configurations in servers.
* Created a custom **puppet module skeleton** to use same structure across all puppet modules.
* Worked with **ANT** for building the application, has written **Shell scripts** to automate the build process.
* Maintained build related scripts developed in shell for **ANT** builds. Created and modified build configuration files including **Build.xml**.
* Converted old builds using MAKE to **ANT** and **XML** for doing **Java** build
* Resolved update, merge and password authentication issues in **Bamboo** and **JIRA**.
* Working closely with Web Administrators to understand, participate, and experience the technical architect for web sites such as **Apache, JBoss, WebSphere, WebLogic and deploying J2EE** Applications to these environments

**Client: P3 Technologies, Hyderabad, IN July 2013 – Nov 2015**

**Role: Linux Administrator**

**Responsibilities:**

* Installed and configured hardware besides installing **RedHat Linux**, **Cent OS**, **SUSE** and other Linux Operating System distributions onto user machines.
* Provided users with role specific permissions by creating users, groups and assigning ownerships. Assigned policies for file and resource access thereby handling user and group account management.
* Administered Linux servers by applying frequent patches and upgrades. Also kept servers up to date by installing required functionalities like **Apache**/**Tomcat** Servers, mail servers, database servers and other dependencies.
* Ensured network security of the systems using **firewall** by specifying white and blacklists. Also configured systems to add them to specific subnets and set rules for traffic routing over network.
* Performed daily **backups** and wrote **crontabs** in shell to take periodic backups.
* Installed and configured security services like **DHCP**, **SSH**, **SCP**, **FTP**.
* Monitored and generated logs of system activities like **CPU**, Memory Disk and **SWAP** space usage.
* Provided support for Linux among multiple teams like development, testing and production. Troubleshooted issues with hardware, network and other Linux functionalities.