SAI VENKAT SERU (Cloud/DevOps Engineer)

**SUMMARY**

* A Professional outstanding, self-motivated career with **9** Years of experience in IT industry with major focus on Middleware products and DevOps **AWSEC2**, **RDS**, **security groups**, **auto-scaling**, load balancers (**ELBs**), **Azure**, Software Configuration and Build/Release Management **Maven**, **Apache Tomcat**, **WebSphere**/**Jboss**, **Jenkins**, **Ansible**, **Docker**, **Kubernetes**, **Splunk**, **Ant**, **Maven**, **GIT**, etc.
* Experienced in Installation and Configuration of **WebSphere** Applic@ation server V3.5/4.0/5.x,6.x, IBM HTTP Server, Sun-one Webserver on AIX, Solaris, Linux, and Windows platforms.
* Expertise in Cloud Infrastructure Automation which includes **Amazon Web Services (AWS), Ansible, Chef, Puppet, Maven, Jenkins, Chef, SVN, GitHub, Tomcat, JBoss,** and **LINUX** etc.
* Experienced In provisioning configuring and troubleshooting of various AWS cloud services EC2,S3, RDS, ELB,**Cloud Formation** Templates
* Experienced in Converting existing AWS infrastructure to server less Architecture (**AWS LAMBDA**), Deploying via Terraform and **AWS Cloud Formation templates**, Cloud watch, Cloud Front
* Experienced in writing the wrapper scripts for chef client and deployment of **cookbooks** in chef solo environments
* Experienced in automating servers and infrastructure configurations using shell scripting and **chef cookbooks** and building docker images.
* Setting up infrastructure as code using terraform to deploy and manage resources In Azure through modules
* Experienced in Migrating all the applications from Data Center to AWS and deploying the applications
* Experience in Installation, Configuration, Troubleshooting and performance tuning of IBM **WebSphere**/ Jboss Application Servers, **WebSphere** Portal, WebSphere MQ on various Operating Systems like UNIX, RHEL and Windows and Web Servers like **Apache Tomcat**, And Providing support for Production, Staging, Testing and Development environments.
* Hands-on Experience with monitoring tools like Prometheus, Dynatrace and Grafana.
* Experienced in installation and configuration of Web Servers IBM **HTTP**/**Apache**, experienced in installation and configuration of LDAP Server IBM Directory Server, Expertise in cluster management implemented horizontal clusters, vertical clusters and hybrid. Troubleshoot.
* Experienced in handling multiple application server nodes using **WebSphere** Application Server Network Deployment Manager, involved in migrating **WebSphere** Application Server 6.1 to 7.x and 8.0
* Administering **WebSphere** Admin Console by setting appropriate roles like Administrator, Configurator, Monitor, Operator roles to **LDAP** users.
* Created and managed a **Docker** deployment pipeline for custom application images in the cloud using **Jenkins**, working on **Docker hub**, creating **Docker** images, and handling multiple images primarily.
* Experience in Designing, Developing and implementing and maintaining custom Jenkins task in java and Groovy.
* 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.
* Experienced in branching, tagging and maintaining the version across the Environments using SCM tools like GitLab on Linux and windows platform
* Created **Terraform** scripts for **EC2** instances, Elastic Load balancers and **S3 buckets**, Planned, developed & maintained Infrastructure as code using **CI/CD** deployments using **Terraform**.
* Involved in **JIRA** as defect tracking system and configure various workflows, customizations and plugins for **JIRA** bug/issue tracker, integration of Jenkins with **JIRA** and **GitHub**.
* Implemented production ready, load balanced, highly available, fault tolerant, **autoscaling** Kubernetes infrastructure and microservice container orchestration.
* Managed Kubernetes Charts Using **Helm** and Created reproducible builds fo the Kubernetes applications, managed Kubernetes deployment and service files and releases of **helm** **packages**
* Profound knowledge and experience on using **MAVEN** and **ANT** as build tools, taken responsibility in building deployable artifacts **(jar, war & ear)** from source code, experience in Installing and Configuring **JBoss** 4.x and **Apache Tomcat** 5.x/6.x Application Servers.
* Professional scripting skills like **Bash Scripts**, **Perl Scripts** and **Python** programming. Deployed many Java applications on bare servers and Middleware tools using scripting skills.
* Extensive knowledge in migrating Windows Servers 2008-R2/2012-R2 with services such as Domain Controller, **AD, DNS**, and Files/Volume shares etc.
* Experience in analyzing Log files such as **JBoss** server logs, node manager logs and Plug-in logs for troubleshooting and problem determination to resolve issues.
* Installed, Configured, Managed Monitoring Tools such as **Nagios** for Resource Monitoring/ Network Monitoring/ Log Trace Monitoring.
* worked on configuring Alerts for dashboard and configured for CI, CD and JENKISN pipelines. configured alerts for Automation for tomcat WBELOGIC AND JBOSS ALWERTS
* Worked on setting up Incident management for Automation for CI and CD Kubernetes
* Worked on setting up **Splunk** to capture and analyze data from various layers Load Balancers, **Web servers** and application servers.
* Experienced in using Log aggregation tools like Sumologic and develop dashboards with the results
* Extensive experience in **Planning, Installing, Configuring, Administering, Patching, Tuning, Troubleshooting** and **Integrating IBM WebSphere Application ServerV5.x/6.x/7.x/8.x, Oracle WebLogic 11c/12c, IBM BPM, IHS, Apache & Sun One Webservers, TAM, Web agent & SiteMinder Policy Servers, LDAP**.
* Good experience with monitoring tools like new relic, Splunk and utilizing tools such as New Relic and network management tools
* Performed support like monitoring, migrations, backups, troubleshooting, configuration changes, general server health checkup, applying service packs and patches, upgrade activities, stale file monitoring, disk clean up.
* Developed and supported the **Red Hat** Enterprise Linux based infrastructure in the cloud environment. Installation, configuration of Package and Patch Management.

**Education Qualification:**

**Master of Science in Data Sciences** – Dakota State University 2017

**Bachelor’s in computer sciences -** Andhra University 2013

**Technical Skills:**

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| **Operating Systems** | RHEL/CentOS 5/6/7, Ubuntu, Fedora, Sun Solaris 7/8/9/10, Windows Server 2003/2008/2012 |
| **Build/Automation** | Puppet, Chef, Ant, Maven, Jenkins, Hudson, Bamboo, Semaphore, Spinnaker, VSTS |
| **Languages** | Shell, Bash, Python, yaml,Terraform |
| **Databases** | MySQL, MongoDB, Cassandra, PostgreSQL, SQL Server |
| **Web/App Server** | Apache 2.2.23/2.2.23-worker, IBM HTTP Server 6.0, Sun One Webserver, WebSphere Application Server 5.x/6.x/7.x/8.x, Tomcat 6x/7x, Liferay 5.1, Jboss 6x/7x, WebLogic 11c/12c |
| **Virtualization/Containerization** | VMware ESXi, vCenter, vSphere Client, Docker, Kubernetes. |
| **Bug Tracking Tools** | JIRA, Confluence, NewRelic |
| **Version Control Tools** | Subversion, GIT, Tortoise SVN, Visual SVN, Terraform |
| **Web/Programming** | Servlets, Java Script, Java/J2EE, C, C++, Ruby, Perl scripting, Python, Shell scripting. |

**PROFESSIONAL EXPERIENCE**

**Pansophic learning, VA April 2022-Present**

**Role: Sr.Cloud/DevOps Engineer**

* Developed build and deployment processes for pre-production and production environments.
* Launching Amazon **EC2** Cloud instances using Amazon Web Services (Linux/Ubuntu) and configuring launched instances with respect to specific applications.
* Created **S3 bucket** for backups using versioning enable and moved objects to Amazon Glacier for archiving purpose and used Amazon S3 for database backup regularly and save snapshots of data.
* Performed AWS cloud deployments for web applications and monitoring using CloudWatch and VPC to manage network configurations.
* Experience setting up and building AWS infrastructure resources such as **VPC, EC2, S3, IAM, EBS, ElasticSearch, Security Group, Auto Scaling, Lambda and RDS** in cloud formation and involved in deploying the content to cloud platform on AWS using EC2, S3 and EBS.
* Hands on experience with IAM to setup user roles with corresponding user and group policies using JSON.
* Maintaining the user accounts (IAM), RDS, Route 53, SES and SNS services in AWS cloud.
* Managed Amazon instances by taking AMIs and performing administration and monitoring of the Amazon instances like EC2 using Amazon Cloud Watch and **Nagios, Splunk**.
* Responsible for installing **Jenkins** master and slave nodes and configured GIT with Jenkins and schedule jobs using POLL SCM option.
* Implemented Jenkins Muti branch pipelines for various applications.
* Used **Ansible playbooks** to automate Configuration management and to manage **Web Applications, Config Files, Data Base, Commands, Users Mount Points and Packages**.
* Experience working with **Ansible tower**, integrating Ansible tower with Jenkins to deploy code to different servers.
* Written **Ansible playbooks** to deploy **ELK** stack using single click deployment.
* Experience working with releasing and managing of **Hadoop, Kafka, MongoDB**.
* Support Atlassian tool sets (**JIRA/Confluence/Stash/Bit bucket**), set up standards across all the tools and its usage.
* Handled deployment of **JAR, EAR and WAR** files to the respective application server instances.
* Worked on integrating application logs with **Splunk** and wrote several custom Splunk queries for monitoring and alerting.
* Used JIRA to track issues and Change Management.
* **Environment**: AWS, Splunk, Docker, Ansible, Jenkins, GIT, Shell, Python, Terraform, Maven, Jira, SQL, JAVA/J2EE, CentOS 6/7.

**3M Health Information systems -St Paul, MN JULY 2018-March 2022**

**Role: Cloud/DevOps Engineer**

**Responsibilities:**

* Designed and developed automation to support CI/CD and processes, analyze client workflows, and determine the best solutions for a successful enterprise Cloud infrastructure. Delivering solutions using Agile methodologies.
* Managed a PaaS for deployments using Docker, Kubernetes &Chef, Puppet which reduced considerably deployment risks. Used Ansible to manage Web applications, Environment configuration Files, Users, Mount points, and Packages. Implemented multi-tier application provisioning in AWS cloud, integrating it with Ansible.
* Developing & implementation one of the complicated and vast on-premises data warehouse projects to AWS. Supported AWS Cloud environment with 2000 plus AWS instances configured Elastic IP and Elastic storage deployed in multiple Availability Zones for high availability.
* Developed and deployed stacks using AWS Cloud Formation Templates (CFT) and AWS Terraform
* Wrote Lambda functions in python for AWS's Lambda which invokes python scripts to perform various transformations and analytics on large data sets in EMR clusters.
* Installed Udeploy Server and agents from scratch and imported multiple applications into the Udeploy server and used lambda for serverless CI/CD pipelining
* Worked on migration from Datacenter to AWS. Setup JFrog Art factory on AWS, single copy of any binary is ever stored on this file system.
* Work with app developers to ensure apps interaction with AWS. Created IAM policies, Configured IAM Users/Roles/Policies to grant fine-grained access to AWS resources to users.
* Setting up Metric gathering system and configuring monitoring around Prometheus, Dynatrace and Grafana along with exporters like Node Exporter.
* Automated the Build infrastructure for deploying services in dockized environment using Jenkins, SonarQube , Gradle , groovy
* Developed agile processes using Groovy, Junit to use continuous integration tools. Excellent experience in documenting and automating the build and release process
* Wrote Terraform templates for AWS Infrastructure as a code to build staging, PROD environments & set up build & automations for Jenkins. Designed &implemented scalable, secure cloud architecture based on AWS. Working with continuous delivery and build clouds with OpenStack and AWS.
* Involved in building and maintaining Highly Available secure multizone AWS cloud infrastructure utilizing Chef with AWS Cloud Formation along with Jenkins for continuous integration
* Managed several Ansible playbooks for the automation that was defined through tasks using YAML format and run Ansible Scripts to provision Dev servers.
* Performed application server builds in the EC2 environment and monitoring them using CloudWatch.
* Creating VPC and bringing instances within based on the requirement. Creating public and private subnets within the VPC and attaching them to the EC2 instances based on the requirement.
* Setting up private networks and sub-networks using Virtual Private Cloud (VPC) and creating security groups to associate them with the networks
* Implemented a CD pipeline involving Jenkins, Chef to complete automation from commit to deployment.
* Wrote **puppet** and chef **c**ookbooks from scratch for configurations on both windows and Linux systems
* Implementing Continuous Integration system: configuring Jenkins servers, nodes, creating required Python scripts as well as bash scripts to create/configure Linux VMs.
* Creating Pods using Kubernetes and worked with Jenkins pipelines to drive all micro services builds out to the Docker registry and then deployed to Kubernetes.
* Creating Kubernetes clusters work with frameworks running on the same cluster resources. Gained knowledge with Mesos providing the fine-grained resource allocations for pods across nodes in a cluster.
* Build/Maintaining Docker container clusters managed by Kubernetes Linux, Bash, GIT, Docker, on GCP.
* Experience on working in deploying and monitoring microservices on various platforms, Developed Kubernetes pods definitions and used Helm Charts to version control complete deployment strategies
* Dealt with various merging conflicts and pushes appropriate code into GitHub repository.
* Administered Jenkins CI server installation &configuration to automate app packaging and deployments.
* Implemented POCs to Migrate Jenkins CI Pipelines to GitHub Workflows and Actions.
* Migrate Subversion(SVN) repositories to Git and administrate GitLab to manage Git Repositories
* Performed integration of Code Quality Analysis Techniques using JUnit, SonarQube, Check style and find bugs with CI tools. And viewing the selected issues of web interface using SonarQube.
* Implemented Docker containers and created clients respective Docker images, Docker consoles and leveraged Apache Mesos to manage Cluster hosts for Applications.
* Converted numerous existing Java projects to a single deployment method using ECS Docker Containers.
* Mitigating the configuration requirements in the future by adopting Docker and modern Chef based concepts and allowing operations to function like PaaS, SaaS.
* Developed Perl and shell scripts for automation of the build and release process.
* Create Chef Automation tools &build and do an overall process improvement to any manual processes.
* Developed Dashboards in the Sumologic and Splunk from the metrics resulted in the specific time intervals
* Responsible for build and deployment of production applications and NAT gateways for webapps hosted in private subnets and integrating of those applications with monitoring tool New relic for complete monitoring
* Used Chef Cookbooks, recipes, roles, data bags, run list to deploy web applications, applications server and vendor applications.
* Used Chef for IaaS configuration by writing cookbooks and recipes to automate the actions for virtual and remote resources and nodes.
* Worked on Chef with Knife commands to manage Nodes, Cookbooks, Chef Recipes, Chef attributes, Chef Templates Working with Modules, Classes, and Manifests in Puppet.
* Created Gherkin features and execution of ATDD scripts through Gherkin feature files.
* Performed S3 buckets creation, policies &also on IAM role-based policies &customizing the JSON template.
* Managed local Deployments in Kubernetes using Open Shift platform, creating local cluster &deploying app containers. Working on rolling updates using the deployments feature in Kubernetes and implemented blue green deployment to maintain zero downtime.

**DELL EMC – Bangalore, India June 2013 – Dec 2016**

**Role: Associate Software Engineer**

**Responsibilities:**

* Installing, configuring, and updating Red Hat Linux 3/4/5 and **CentOS** on HP ProLiant /Dell servers using **kickstart**& support for various applications run on **Linux** environment, configuration, performance tuning, patching and maintenance.
* Developed automated processes that run daily to check disk usage and perform cleanup of file systems on **UNIX** environments using **shell** scripting and **CRON**.
* Administration in VERITAS Volume Manager and VERITAS Cluster Server and Maintaining **DNS**, Network File Services (**NFS**), and **DHCP**, printing, mail, web, and **FTP** services for the enterprise.
* Coordinate with different teams to perform network services, **DNS** services and along with firewall team to perform required services for the migrations.
* Configured **Red hat Kickstart** for installing multiple production servers. Experience working with production servers at multiple data centers.
* Configured **LDAP** clients on server test and troubleshoot for maintaining network and data security.
* Experience in installation and configuration of RedHat Clustering and experienced in Logical Volume Management on Linux with **LVM** Knowledgeable in **HTTP, HTTPS, SMTP, FTP, SFTP, DHCP, DNS, SNMP TCP/IP, UDP, ICMP, VPN, POP3** protocols.
* Mounting &unmounting the **Netapp** storage LUNs to the Red hat Linux servers and troubleshooting the issues

Encountered.

* Migrated database source tables, created/modified power shell scripts and SQL to implement new data requirements, fixed issues, and improved database performance.
* Monitoring of all storages and switch health status, Documentation of all storage and switch information.
* Create, deploy and manage Linux and windows VM using Red Hat Enterprise Virtualization Manager, which includes moving and migrating **VM** from one cluster to another cluster or within the same cluster.
* Installed and configured ESXi 5.0, 5.1 Servers on Blade servers, Creating Virtual machines, Creation of templates from **VMs** and Creation of **VMs** from templates.
* Ability to build deployment, build scripts and automated solutions using scripting languages such as power Shell scripting (**ksh, Bash**).
* Performed physical to **virtual (P2V)** and (**V2V**) migrations for approximately 50 physical servers utilizing VMware Converter.
* **PXE** boot set up for **kickstart** and building servers, built kickstart servers in DR site - using http method, created documents for building new servers using kickstart.
* Developed from the ground up, using native **VMware API**, REST, a new automated Inventory System for VDI containing detailed real-time information about the desktop, infrastructure, and assigned user thereby significantly improving billing accuracy, recoveries, asset cleanup, and resource utilization**.**
* Performed Disk management with the help of **LVM** (Logical Volume Manager), Good experience in creating **physical volume**, **logical volume**, **volume groups** using LVM's in Linux.
* Configured **yum** repository server for installing packages from a centralized server, extensively used **RPM** RedHat Linux tools to install packages and patches for **Red Ha**t Linux server.

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