**A white sign with black text

Description automatically generated with low confidence**A picture containing diagram

Description automatically generated**Sai Pavan Y**

**Sr. DevOps Cloud Engineer**

## saipavany3014@gmail.com | (678) 208-9467

[linkedin.com/in/saipavany3014](https://www.linkedin.com/in/saipavany3014)



**PROFESSIONAL SUMMARY**

A proactive, result oriented IT Professional with **8+** years of experience as a SCM, DevOps Engineer in solving complex problems with creative solutions, supporting development, deployment operations in different environments. Experienced in all phases of **Software Development Life Cycle** (SDLC), **Quality Assurance Life Cycle** (QALC), **Linux Administration**, **Software Configuration Management** (SCM), **Continuous Integrati**on (CI), **Continuous Deployment** (CD), **Release Management**, **Cloud Implementations**, and **Configurations**.

* Designed, built and deployed a multitude applications utilizing the **Google Cloud computing** platform that includes various resources like **Google Kubernetes Engine**, **Google App Engine**, **Google Compute Engine**, **Container Registry**, **Load-Balancing**, **Auto-Scaling**, **Cloud SQL**, **Big Query**, **Cloud Function**, **Deployment Manager**, **Cloud NATs**, and **Cloud Storage** with a focus on achieving 99.99% availability or higher while enforcing access control policies for applications and resources using **GCP’s IAM, IAP, and Cloud Armor** components.
* Experience with configuring VPC networking peering, Shared VPC, and Hybrid Connectivity between GCP and on-Prem networks using interconnect component on GCP.
* Experience with setting up **GCP Firewall rules** to allow or deny traffic to and from the VM's instances.
* Designed, built and deployed a multitude applications utilizing almost all the **AWS (Including EC2, S3, Elastic Beanstalk, Elastic Load Balancing (Classic/Application), Auto Scaling, RDS, VPC, CloudWatch and IAM),** focusing on high- availability, fault tolerance, and auto-scaling with Cloud watch monitoring ensure data integrity and data security on AWS technology by implementing AWS best practices.
* Experience with an in-depth level of understanding in the strategy and practical implementation of AWS Cloud-Specific technologies including **EC2, EBS, S3, VPC, RDS, SES, ELB, EMR, ECS, CloudFront, Cloud Formation, Elastic Cache, Cloud Watch, RedShift, Lambda, SNS, DynamoDB**.
* Worked on templating Amazon Machine Images **(AMI),** creating **EBS** snapshots to ensure backups and promote reusability. Assigned **Storage classes** to **S3** based on Object Lifecycle to reduce storage consumption cost.
* Hands-on experience in **Azure Cloud Services (PaaS & IaaS)**, Storage, Web Apps, Active Directory, Azure Container Service, VPN Gateway, Content Delivery Management, **Traffic Manager, Azure Monitoring**, OMS, Key Vault, Visual Studio Online (VSO) and **SQL Azure**.
* Experience in Azure Network Security Groups, Azure Operational Insight and OMS, Azure Premium Storage, Site Recovery, Network Virtual Appliance, Client-Side encryption for Azure storage objects.
* Used **Azure Kubernetes Service** to deploy a managed **Kubernetes** cluster in Azure and created an AKS cluster in the **Azure portal**, with the **Azure CLI**, also used template driven deployment options such as Resource Manager templates and **Terraform**.
* Excellent with **Terraform**, **Infrastructure as code (IaC**), in provisioning Google Cloud/AWS resources with declarative configuration files - resources such as virtual machines, containers, storage, and networking, etc.
* Excellent with **Kubernetes** which includes – k8s cluster installation, configuring pods, workload deployments, managing config Map and secret changes, configuring horizontal pod auto-scaling, load balancing, and configuring health checks to support failover scenario in multi-region architecture ensuring high availability of the applications.
* Used **Kubernetes** to orchestrate deployment, scaling, clustering and management of containerized applications as Pods, **Docker swarm** in managing **Docker containers** and Kubernetes Clusters to support automatic high availability, load balancing, health checking and failover.
* Experience in managing the clusters using **Kubernetes** and worked on creating pods, replication controllers, services, deployments, labels, health checks. Design and developed **Containers as a Service** on **Kubernetes**.
* Configured **Ansible** control machine and wrote **Ansible playbooks** with **Ansible roles**. Used file module in Ansible playbook to copy and remove files on **EC2 instances**.
* Experienced with **Ansible** playbooks for virtual and physical instance provisioning, creating various roles for application, configuration management, patching and software deployment of the applications/services on hosts.
* Implemented and designed **AWS virtual servers** using **Ansible roles**, ensuring deployment of web applications and experience in working with **GIT** to store the code and integrated it to Ansible to deploy the Playbooks.
* Experience in working on Chef with Knife commands to manage Nodes, **Cookbooks, Chef Recipes, Chef attributes, Chef Templates** and extensively used **Ruby scripting** on Chef Automation for creating cookbooks comprising all resources, templates, attributes.
* Experienced in all areas of **Jenkins** setting up CI for new branches, build automation, plugins installations and management and securing Jenkins and setting up master/slave configurations.
* Developed custom **Jenkins jobs/pipelines** that contained Bash shell scripts utilizing the AWS CLI to automate infrastructure provisioning.
* Installed and configured **Splunk** to monitor EC2 Linux instances with **Puppet** automation. Created and managed Splunk DB connect Identities, Database Connections/ Inputs, Outputs, access controls and generated reports.
* Developed **Python scripts** to take backups of **Elastic Block Storage (EBS)** volumes using **AWS Lambda** and **CloudWatch** and automate AWS services which include **Web servers, ELB, Cloud Front Distribution, Database, Security groups, S3 bucket and application configuration**.
* Experience with Bug tracking tools like **JIRA**, Remedy. Experienced in Branching, Tagging, and maintaining the versions across different **Source Code Management (SCM) tools like GitHub, Subversion** (SVN).
* Proficient in Querying **RDBMSs like Oracle, MySQL, SQL**. Created Database, Tables, Views, Stored Procedures, Indexes (cluster/Non-cluster), and Constraints, Triggers, Buffer Pools, User Roles, and functions.
* Experience in programming languages such as **Java, .net, C, C++. Servers like Apache, Tomcat and strong in scripting languages like Python, Perl, Ruby, PowerShell, Shell**.
* Good Interpersonal Skills, team-working attitude, takes initiatives and very proactive in solving problems and providing best solutions. Strong and progressive experience in the server installation and administration of **Red Hat Linux, Centos, Ubuntu, Oracle Enterprise Linux, VMware** environment. Experience in using **Tomcat, JBOSS, Web logic and Web Sphere Application** servers for deployments.

# TECHNICAL SKILLS

# 

|  |  |
| --- | --- |
| Cloud Platforms | Google Cloud Platform (GCP), Amazon Web Services (AWS), Microsoft Azure |
| Configuration Management Tools | Chef, Puppet, Ansible |
| Version Control | Git, Bitbucket, GitHub |
| Reporting & Ticketing Tools | Jira, Service Now, HPQC |
| Build Tools | Maven, Gradle, NPM, Helm |
| Monitoring Tools | Google Stackdriver, Grafana, ELK Stack, CloudWatch, Datadog |
| CI/CD Integration Tools | Jenkins, Spinnaker, TeamCity, Concourse |
| Containerization Tools & Orchestration | Kubernetes, Google AppEngine, Google Kubernetes Engine, Pivotal Cloud Foundry, Docker, Docker Swarm |
| Operating Systems | Red Hat Linux, Ubuntu, CentOS, Windows |
| Web/Application Servers | Apache Tomcat, Web Logic, Red hat, WebSphere |
| Database | Oracle, DB2, MySQL, Postgres, AWS RDS, Cassandra, MongoDB, GCP Big Query, GCP Spanner. |
| Languages | SQL, JavaScript, PHP, HTML, R Programming, R Shiny, PYTHON, Shell Scripting, Terraform, Groovy |

# PROFESSIONAL EXPERIENCE

## Client: The Home Depot – Atlanta, Georgia Aug 2022 – Present

## Role: Sr. Cloud/DevOps Engineer

**Responsibilities:**

* Provisioned Google cloud resources like **VPCs, Subnets, GKE Clusters, Composer, Compute Engine VMs, Cloud SQLs, Spanner, Big Query Dataset/Tables, Cloud Storage, DNS, Load Balancers, PubSub Topics/Subscriptions, Certs, and Cloud NATs** with **Terraform** executed using **Jenkins** while maintaining terraform state files to keep track of changes on resources.
* Deployed microservices on Google Cloud multi-region/zones on **Kubernetes** and utilized global load balancers to split HTTP(s) traffic across regions, including automatic multi-region failover, which gently moves traffic in fractions if backends become unhealthy based on health checks configured.
* Deployed Datastack Cassandra database on **Google Compute Engine** VMs using deployment manager on Google Cloud.
* Delivered end to end **CI/CD** solution for **SpringBoot and NodeJS** **microservices** utilizing **Jenkins** and **Spinnaker** for deploying to **Google Kubernetes Engine** platform. The pipeline involves multiple stages like checkout a branch, perform application build using **Gradle/Maven/NPM**, complete testing and code quality checks using **SonarQube**, **git versioning**, dockerize, publish the image to container registry on GCP, perform security checks, deploy application using Helm to test environment, and finally deploy to production.
* Manage **IAM** access control policies and setup **GCP Firewall rules** to allow or deny traffic to and from the VM instances based on specified configuration using **Terraform**.
* Designed and maintained application deployment **AWS** infrastructure utilizing services such as **EC2, RDS, VPC and** managed network and security**, Route 53, DirectConnect, IAM, Cloud Formation, AWS Ops Works** (automate operations), **Elastic Beanstalk, AWS S3, Amazon Glacier** and **Cloud Watch** monitoring Management Gateway.
* Implemented a 'serverless' 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 **S3**.
* Developed micro services with **AWS Lambda** and S3 using Java to improvise the performance of the application and managed network security using Security groups and **NACLs**.
* Setup **EKS** in the **AWS** environment after migration for Datacenter to **AWS** cloud. Created lucid charts for Data Flow architecture from user to source they are trying to reach.
* Worked with **Red Hat** **OpenShift** Container Platform for **Docker** and **Kubernetes**. Used **Kubernetes** to manage containerized applications using its Config Maps, **selector**, **Services** and deployed application containers as **pods**.
* Created **Kubernetes** replication controllers, Pods, Clusters, services, labels, health checks and deployed micro services on **Docker** containers. Used **Clusters** to deploy program on it and used **scalability** to distribute the work among the individual **nodes.**
* Extensively used **Docker** for containerization, running, shipping, and deploying the application securely to speed up the build and release processes, also automated **docker image** builds by creating dockerfiles.
* Implemented blue-green deployment on **Kubernetes** using a single node etcd, multiple masters and multi-workers configuration.
* Created **GitHub Webhooks** to setup to drive all builds to **Docker** registry and then deployed to **Kubernetes**, created pods using **Kubernetes** and used **ECS** service to supports Docker containers to easily run and scale containerized applications on AWS.
* Managed results in **Jenkins** dashboard view using Dashboard View plugin and also added **Sonar** Dashboard view into **Jenkins**. Extended the generic process by attaching the **Jenkins** job webhook to all the current Java and Scala-based projects in **GitHub.**
* Implemented **Jenkins** workflow and plugins for repeatable deployments of multi-tier applications, **artifacts**, and services to **Docker**.
* Created additional Docker Slave Nodes for **Jenkins**, using custom **Docker Images** and pulled them to ECR and monitored using **Prometheus**. Worked on all major components of Docker like, Docker Daemon, Hub, Images, Registry and wrote **Python** script for **Prometheus** Alert-manager alerts to send alerts in Linux VM.
* Deployed critical applications and automated repetitive tasks using **Ansible**. Implemented **Ansible Tower** dashboard to allow individual access to use Ansible for the deployments
* Written **Ansible** playbooks which are the entry point for **Ansible** provisioning, where the automation is defined through tasks using **YAML** format and run **Ansible** Scripts to provision Dev services.
* Wrote the **Ansible** playbooks, defined automation tasks using **YAML** files format. And also to manage inventory, orchestrate software updates and verify functionality and document all infrastructures into version control.
* Worked with **Splunk** monitoring using custom monitors, maintaining and adjusting existing monitors and responding to generated requests.
* Experience in using **Nexus** and Artifactory Repository Managers for **Maven**. Ensured the security of Web applications by generating SSL certificates and accessed them securely.
* Developed **Shell/Python Scripts** for automation purposes like backing up disk groups, archive logging, Rest API calls, OS Patching, DB Patching etc.
* Expertise in using Microsoft IIS Web Server, Apache Tomcat, Web logic and WebSphere Application servers.
* Tested, evaluated & troubleshooted database systems & cluster configurations to ensure high availability in various crash scenarios.
* Worked in diverse agile environment by tracking the team activity through **Jira**. Participated and contributed effectively in daily stand-up, sprint review, sprint demo and scrum meetings in **Agile**.
* ***Environment:*** *Google Cloud Platform, AWS, Terraform, Cloud Formation, Jenkins, Git, GitHub, Docker, Kubernetes, AWS Lambda, VM Export/Import, Red Hat OpenShift*,*OpenStack, Nexus, Terraform, Prometheus, Ansible, Maven, Splunk, Linux, ANT, Python, NoSQL***,** *PowerShell, Jira.*

## Client: Prime Therapeutics - Eagan, Minnesota Aug 2019 – July 2022

## Role: Cloud/DevOps Engineer

**Responsibilities:**

* Configured **Azure Virtual Machines** (VM) and Azure storage like **tables, blobs**. Created and Setup different blob variants like page blobs, append blobs and block blobs ensuring storage efficiency. Worked on **vRealize Automation** to automate IT process throughout VM lifecycle, such as provisioning, management and retirement.
* Designed **Azure** cloud models for establishing secure and cross-premise connectivity with **Azure VPN gateway** and Content Delivery Network and created Azure VM, Cloud Services/ Storages by using **Azure Power-Shell Script**.
* Designed and configured **Azure Virtual Networks** (VNets), subnets, Azure network settings, DHCP address blocks, DNS settings, security policies and routing. Deployed **Azure IaaS virtual machines** and **Cloud services** (PaaS role instances) into secure VNets and subnets.
* Leveraged **GCP** cloud services such as Compute, auto-scaling and VPC to build secure, highly scalable and flexible systems that handled expected and unexpected load bursts.
* Build and configure a virtual data center in the **Google cloud platform(GCP)** to support Enterprise Data Warehouse hosting including Virtual Private Cloud (VPC) , Public and Private Subnets, Security Groups, Route Tables, Google Cloud Load Balancing.
* Configured **GKE** cluster orchestration with microservices application deployment in several nodes and pods, autoscaling, logging, and monitoring. **Google** **app** **service** for Java and python based microservice application deployment and updates.
* Created **Kubernetes** cluster with objects like Pods, Deployments, Services, and Config Maps and created reproducible builds of the **Kubernetes** applications, managed **Kubernetes** **manifest** files, and Helm packages and implemented Kubernetes to deploy scale, load balance, scale and manage **Docker** **containers** with multiple namespace versions.
* Designed and distributed private cloud system solution using **Kubernetes** (Docker) on CoreOS and used it to deploy scale, load balance and manage **Docker containers** with multiple versions.
* Implemented a continuous delivery pipeline with **Docker** for custom application images in the cloud using **Jenkins**.
* Created, managed, and performed container-based deployments using **Docker images** containing Middleware and Applications together and evaluated **Kubernetes** for Docker container orchestration.
* Created CI/CD Pipelines **in Jenkins** by providing their dependencies and tasks. Also have experience on implementing and managing continuous delivery systems and methodologies on Azure and created END-END Automation with CI Procedures using **Jenkins** & automated Maven builds by integrating them with Continuous Integration tools **Jenkins**.
* Migrated repositories from different source control systems to Team Foundation Version Control(TFVC) and GIT repositories in **VSTS** (Azure DevOps).
* Documented release **metrics**, software configuration process.  Used **Maven** scripts to build the source code. Supported and helped to create Dynamic Views and **Snapshot views** for end users.
* Configured **Bitbucket**with **Jenkins** & automated the build process through **SCM** polling. Created post-commit & pre-push hooks using bash in **Bitbucket** repositories. Resolved merging issues during rebasing & re-integrating branches.
* Written **Chef** Cookbooks and recipes in **Ruby Script** to install and configure Infrastructure across environments and automated the process using **Python Script** and setting up **Chef** **Infra**, **bootstrapping nodes**, **creating** and uploading recipes, node convergence in **Chef SCM.**
* Configured **Chef Server**, **Workstation**, **Client servers** and **nodes**. Written several **Recipes**, **Cookbooks** to automate the environment provisioning, Middleware Infrastructure Installations.
* Deployed new **Splunk** systems and monitor **Splunk** internal logs from the monitoring Console (MC) to identify and troubleshoot existing or potential issues.
* Release Management and Build Automation with VSTS Developed automation scripts using **PowerShell**, supporting multiple hosts and VMs for **Azure** cloud deployments Developed the **Java** based **Web Service API's** for the application Symantec Workspace Streaming (**SWS**).
* Created **PowerShell** scripts for automated login, securing data into **Azure Key Vaults** and dynamically setting  
  appropriate permissions on Azure resources like **Azure SQL, Data Lake Store** for Hadoop.
* Developed **PowerShell** scripts to automate the project creation, setting permissions for users, groups in **TFS**.
* ***Environment:****Azure, GCP, Red Hat Linux 6.X, 7.X, Windows, Red Hat, Docker, Kubernetes, Chef, Azure DevOps, Jenkins, Maven, Nagios, Splunk, Python, Shell, VMware, Java, GIT, Apache Webserver, JBoss.*

## Client: Syntizen Technologies - India June 2017 – July 2019

## Role: DevOps Engineer

**Responsibilities:**

* Involved in projects that move to production and work closely with the **Development**, **Quality Assurance** and **Management teams** to ensure cross communication and confirmed approval of all production changes
* Experienced in authoring **pom.xml** files, performing releases with the Maven release plugin, and managing **artifacts** in **Sona** type **NEXUS** repository.
* Implemented automation of **Builds** and **Release** management using **Jenkins** to achieve **CI/CD** in a project.
* Troubleshoot the **build** issue during the **Jenkins** build process and resolved system issues and inconsistencies in coordination with quality assurance and engineering teams.
* Worked with **Jenkins API's** to know various things like **build status**, **count of builds**, **Git commit** version used by **Jenkins** builds etc.
* Solid experience in developing and **deploying** the applications on **Tomcat** Apache servers and maintaining **Load balancing**, **High availability**, and **Failover**.
* Written **Bash** **shell** scripts for getting information about various **Linux servers** and prepared **Ruby codes**, programming of **web applications** and **testing services** on daily basis.
* Installed and configured **Jenkins** for continuous integration and performed continuous deployments
* Creating the build script using the **Ant** as **build tool**, for **Java** and **.Net** web applications.
* Worked on **JIRA** for tracking and updating the **JIRA** tickets and per assigned and Maintained **JIRA** Administration/User documentation in Confluence.
* Built end to end **CI/CD** Pipelines in **Jenkins** to retrieve **code**, compile applications, perform **tests** and **push** build **artifacts** to **Nexus**.
* Managing permission for files and directories with **chmod** and managing different kind of services like **DHCP**, **FTP**, **NFS**, **Apache** Web Server.
* Organized and Coordinated Product Releases work closely with product development, **QA**, Support across global locations to ensure successful releases.
* ***Environment****: Subversion, Jenkins, Apache Tomcat, Nexus, Oracle, Ant, DB2 MS SQL Server, Java, J2EE, Ruby, Shell, Windows, Linux*

## Client: Zazzy - India Jan 2015 – May 2017

## Role: Systems Administrator

**Responsibilities:**

* Experience in **LINUX/UNIX** Administration, **Shell Scripting** with expertise in **Red-hat/CentOS Linux 4/5/6,** **Solaris 8/9**, **VMware** **ESXi 4.5/5.5**, **WebLogic** and **WebSphere**.
* Planned and performed the upgrades to **Linux operating systems** and hardware maintenance like changing memory modules, disk devices, **SAS, SATA & SCSI** devices.
* Managed systems routine backup, scheduling jobs, enabling Cron jobs, enabling system logging and network logging of servers for maintenance.
* Utilizing **SAR**, **Netstat, Iostat** and **Vmstat** for performance analysis, tuning and capacity planning, problem prevention, detection and resolution.
* Use of Logical Volume Manager **(LVM)**, creating volume groups, logical volumes and disk mirroring in **HP-UX** and **Linux.**
* Created virtual server on VMware **ESX/ESXi** and Oracle Virtual box-based host and installed operating system on **guest Servers**.
* Installed and configured **Apache** **Webservers** and troubleshoot problems a+7rising from **Apache** functionality.
* Creating, extending and reducing **LVM's** for managing the disk storage space.
* Overseeing **migrations** from physical to virtual.
* Used **Maven** (**POM.xml**) and **Ant scripts** (**build.xml**) as build **frameworks/scripts**.
* Utilized **Linux** Terminal Server for removing **fat client** management, save on administration Provide users with a more reliable & secure environment.
* Utilize commands and utilities such as iptables, **netstat**, ping to implement operating system and network security.
* ***Environment:*** *RedHat Enterprise Linux, WebSphere, VMware, Vmstat, Apache, Netstat, Git, Maven, Ant, LVM,Tomcat, TCP/IP*.