Vegiraju Mohana Srikanth Varma

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**PROFESSIONAL SUMMARY:**

* 10+ Years of IT experience in Cloud and On - Prem Environments with Build and release Management, Systems Admin and Continuous Integration/ Automated Deployment including end-to-end code configuration using different Third-party tools and Cloud Services like **AWS**, **Azure**, **OpenStack**, and **PCF**.
* Experience in **AWS** platform and its features including IAM, EC2, EBS, VPC, Cloud Watch, Cloud Trail, Cloud Formation, AWS Config, Auto scaling, CloudFront, S3, SNS, Lambda, EFS, MSK, Systems Manager, AWS Networking, S2S VPN, Transit Gateway and Route53, DynamoDB, RDS, ECS, EKS, AWS WAF, AWS Trust Advisor.
* Experience in dealing with Windows **AZURE** laaS - Virtual Networks, Virtual Machines, Cloud Services, Resource Groups, Express Route, Traffic Manager, VPN, Load Balancing, Application Gateways, Auto-Scaling.
* Expert in Implement deploy and configure websites, configure **Azure** diagnostics, monitoring and analytics on Azure Platform along with scale and resilience for Azure Web sites.
* Proficiently provisioned diverse infrastructures using **Terraform**, emphasizing automation, scalability, and adherence to Infrastructure as Code (IaC) principles.
* Developed **Terraform** modules from scratch, incorporating parameterization and variables, while actively contributing to version-controlled collaborative projects, fostering efficient and adaptable infrastructure solutions.
* Experience in **Kubernetes** to deploy scale, load balance and manage **Docker** containers with multiple names spaced versions and good understanding of **Open Shift** Platform in managing **Docker** Containers and **Kubernetes** Clusters.
* Experience in writing **Ansible** **playbooks**, created custom playbooks written in **YAML**, encrypted the data using Ansible Vault and maintained role-based access control by using **Ansible Tower** to manage web applications, Environments configuration files, Users, Mountpoints and Packages.
* Experience in **Chef** **Cookbooks** for various DB configurations to modularize and optimize product configuration, converting production support scripts to **Chef** **Recipes** and AWS server provisioning using **Chef Recipes**.
* Analyzed various distributed file systems suitable for cloud storage using a storage benchmark. Tested a private storage cloud using Open Stack SWIFT software and worked as well with **OpenStack**.
* Experience in CloudFormation to automate **AWS** environment creation along with the ability to deployment on AWS, using build scripts (AWS CLI) and automate solutions using Shell and Python.
* Experience setting up **CI/CD** pipeline using continuous integration tools Jenkins and automated the entire AWS EC2, S3, VPC, SNS, EMR, based infrastructure using Terraform, Ansible, Chef, Python, Shell, Bash scripts and Managed security groups on AWS and custom monitoring using CloudWatch.
* Custom integration, plugins dev for different tools around **CI-CD** like **GIT, JENKINS, Artifactory,** **SonarQube, Jacoco, Spark, PIT-Mutation, check style, Cobertura, Splunk, Bitbucket, AKS, Helm Chart, Reporting** and Dashboards using **API** and other techniques.
* Proficient in designing and implementing AWS infrastructure using **CloudFormation**, adhering to Infrastructure as Code (IaC) principles.
* Extensive experience in using Build automation tools like **Maven**, **ANT**. Good knowledge in managing the **Nexus** Artifactory repositories for the **Maven** artifacts and dependencies.
* Orchestrated the deployment of a global-scale web application by configuring and optimizing AWS **CloudFront** distributions, significantly reducing latency, and enhancing end-user experience.
* Extensively worked with Version Control **Systems Bitbucket, SVN (Subversion)** and **GIT**.
* Good Knowledge of **Shell** **Scripting, Java, Java Script** and **Python**.
* Orchestrated the deployment of a global-scale web application by configuring and optimizing AWS CloudFront distributions, significantly reducing latency, and enhancing end-user experience.
* Led successful production deployments, leveraging AWS services such as Elastic Load Balancing and Auto Scaling to achieve zero-downtime updates, emphasizing practical solutions for high availability and fault tolerance.
* Expert in **Ansible** as a Configuration management tool, to automate the repetitive tasks, quickly deploy critical applications, and enthusiastically manage the changes.
* Performing unit testing using **JUnit** and providing source code analysis to detect bugs and code vulnerabilities using **SonarQube**.
* Experience in building and deploying the java applications and troubleshooting the build and deploy failures.
* Created Dashboards in **Nagios** and **CloudWatch** for monitoring End-User Response Time & Requests. Familiarity with monitoring tools like **New** **Relic**.
* Worked on **JIRA** and **Rally** to track issues and project management.

**TECHNICAL SKILLS:**

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| --- | --- |
| * **Cloud Platform** | Amazon Web Services (AWS), Azure |
| * **SCM Tools** | Git, GitLab, GitHub, Bitbucket and Subversion (SVN) |
| * **Build Tools** | Maven, Ant and Gradle |
| * **CI Tool** | Jenkins, Bamboo. |
| * **Repository Manager** | NEXUS, JFrog Artifactory |
| * **OS Platforms** | RHEL/CentOS 5.x/6.x/7, Ubuntu/Debian/Fedora, Windows, Solaris |
| * **Web/Apps Servers** | Apache Tomcat, JBOSS, WebSphere and Oracle Web logic. |
| * **Configuration Tools** | Ansible, Chef and Puppet |
| * **Quality Management Tool** | SonarQube |
| * **Virtualization & Containerization** | Docker, Kubernetes, Vagrant, Oracle VirtualBox, VM Ware |
| * **Databases** | Oracle 9i/10g/11g, Microsoft SQL 2008, MySQL, MongoDB |
| * **Bug tracking Tools** | JIRA, Rally |
| * **Reporting tools** | Prometheus, Grafana, Nagios, New Relic, Splunk and CloudWatch. |

**PROFESSIONAL CERTIFICATIONS:**

* AWS Solutions Architect Associate (SAA-C03)
* Hashicorp Certified: Terraform Associate (003)

**PROFESSIONAL EXPIRENCE:**

**Company: US Bank, Minneapolis, MN Apr 2022 – Till Date**

**Role: Sr DevOps Engineer**

**Responsibilities:**

* Worked on AWS **environment setup strategies** and managed **multiple AWS accounts** with multiple vpc’s for both production and non-prod where primary objectives included automation, build, and integration.
* practical implementation of **AWS** Cloud Services like **EC2**, **S3**, **VPC, NACL’s, Subnets, Internet gateway, NAT, Route table, CloudFormation, IAM**, **NLB (network load balancer)**, **ELB**, **EBS**, **AWS Lambda**, **ECR,** **EKS, Route 53**, DirectConnect**, Document DB, ELB, NLB, Elastic Cache (Redis), Sage maker.** Used **amazon KMS for Storing and managing Keys used in application access.**
* Configured AWS Identity Access Management (**IAM**) Group and users for improved login authentication. Managing **IAM accounts (with MFA)** and policies and Identity providers to meet security audit & compliance requirements.
* introduced git-flow branching strategy and incorporates CI Automation and integrated in the pipeline.
* Written **Jenkins fil**es to support Pipeline Job’s and Configuring **Multi-Branch Pipeline Jobs to automate Build and deployments by watching Developers Code commits.**
* Designed and Implemented **CI & CD** Pipelines using **Git**, **Jenkins,** **Maven, ECR** and **EKS** from scratch achieving the **end-to-end automation** from **code check in** to **deploying docker images to EKS clusters**.
* Experienced in Build and Deployment of **Java and python-based applications** on different environments like **Dev, Stage,**and **Production**, which includes **designing, development**, and **implementation**.
* **migrated** **on-prem mongo DB** data to **AWS Document DB** (fully mongo compatible) by creating **endpoint connections** and **replication instance** leveraging **AWS DMS** (database migration service).
* installed and **configured** **RabbitMQ** as the messaging middleware behind Cisco's enterprise **proxy** server to enable connectivity to on-prem through Cisco **Run on-SCI**.
* Established the connectivity between a **snowflake** analytic data warehouse for different VPC'S across multiple AWS accounts by enabling the **AWS Private Link** and creating **VPC endpoints**.
* Provisioned and configured the AWS managed services **ElastiCache (Redis),** **Elasticsearch -7.9**, **AWS Sagemaker**, and configured the Cisco's enterprise proxy for **Jupiter Notebooks** in our AWS environment.
* Created **VPC endpoints** that **enable private access** to specific AWS services from our AWS VPC, without using public IP addresses and without requiring the traffic data to pass over through the Internet.
* Created custom **AWS CloudFormation templates**in **JSON**tailored **to our organization requirements**to use them as blueprints for building & deploying **EKS clusters**which will set the **proxy** configured dynamically during the cluster creation.
* Expertise in creating **Docker images** using **Docker File**, worked on Docker container snapshots, removing images, and managing Docker volumes and implemented Docker automation solution for **CI/CD model**.
* Extensive experience in installing, configuring and managing Jenkins CI tool on Linux machines and using Jenkins Pipelines to push all Microservices builds to the **Docker Registry (ECR),** then deployed to **Kubernetes**, built and managed **Pods** using Kubernetes.
* Experience in **Kubernetes** to **deploy,** **scale**, **load balance**, and manage Kubernetes Pods with multiple names spaced versions using **Helm charts**.
* Worked on the development and implementation of the Helm charts for the deployment of microservices in the Kubernetes cluster.
* Strong hands-on experience on k8’s concepts and implemented features such as **HPA** (horizontal pod autoscaling), **Kubernetes secrets, readiness probe & liveliness probe, Daemon sets, Config-maps, etc.**
* Created **custom roles** in **AWS**, allowing pods to consume these roles using K8'S **Service Accounts**, thus limiting access to AWS resources at **Pod level** and ensuring **security**.
* Created **dynamic routing/load balancing** capability*,* allowing for large application scaling, used **ingress rules**, and a **Network Load Balancer** with the **NGINX Ingress Controller** on **Amazon EKS.**
* Expertise in configuring the monitoring and alerting tools according to the requirement like **Prometheus** and **Grafana**, setting up alerts and deployed multiple **EKS dashboards** for various microservices in K8's.

**Environment**: AWS S3, EC2, KMS, EKS, AMI, VPN, DNS, Route 53, RDS, EBS, Network Load Balancer, CFT, Docker, Kubernetes, Document DB, Bitbucket, RabbitMQ, Jenkins, rally, Maven, Nexus, Apache Tomcat, SonarQube, Junit, Python, Shell Scripting

**Company: Ford, Dearborn, MI Jan 2020 – Mar 2022**

**Role: Site Reliability Engineer**

**Responsibilities:**

* Deployed **Azure** **laaS** virtual machines (VMs) and Cloud services (PaaS role instances) into secure **VNets** with **Azure** internal Load Balancer and subnets.
* Created **Azure** Automation Assets, **Graphical runbooks**, **PowerShell** runbooks that will automate specific tasks. deployed Azure AD Connect, configuring ADFS authentication flow, **ADFS** installation using Azure AD Connect.
* Implemented Enterprise Integration architecture using **Azure Service Bus**, **App Service**, Active Directory, Storage, hybrid connection manager, active directory authentication for **Azure SQL** server and other offerings by **Azure**.
* Working knowledge Server less services (**Azure** Functions) created and configured **HTTP** Triggers in the Azure Functions with Application insights for monitoring and performing load testing on the Applications using the **VSTS**.
* Experience in migrating the existing v1 (Classic) Azure infrastructure into v2 (ARM), scripting and templating the whole end to end process as much as possible so that it is customizable for each area being migrated.
* Converting Existing **Terraform** modules that had version conflicts to utilize cloud formation during Terraform deployments to enable more control or missing capabilities.
* Designed and integrated **Pivotal Cloud Foundry** (PCF) on Microsoft Azure and deployed PCF using CF push and urban code deploy.
* Worked on developing APIs using **Kubernetes** to manage and specify the copies of the containers to run the actual servers in the cloud environment.
* Managed **Kubernetes** charts using **Helm**. 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.
* Created Clusters using **Kubernetes** and worked on creating many pods, replication controllers, replica sets, services, deployments, labels, health checks and ingress by writing **Yaml** files.
* Spinnaker is introduced for continuous delivery which bakes the image and performs prod deployment. Setting the image which is stable which performs release management.
* Working knowledge of **Docker Hub, Docker Container network**, creating Image files primarily for middleware installations &amp; domain configurations. Evaluated **Kubernetes** for Docker Container Orchestration.
* Involved in creation of Architecture and built Minimum Viable product (MVP) for containerization platform using Docker and Kubernetes.
* Involved in development of test environment on **Docker** containers and configuring the Docker containers using **Kubernetes**.
* Scheduled, deployed and managed container replicas onto a node cluster using Kubernetes.
* Configured and integrated **GIT** into the continuous integration (**CI**) environment along with Jenkins and written scripts to containerize using **Ansible** with **Docker** and orchestrate it using **Kubernetes**.
* Experience in managing **Ansible Playbooks** with Ansible roles and creating inventory in **Ansible** for automating the continuous deployment.
* Installed **Ansible Tower**, which provides an easy-to-use dashboard and role-based access control, so that it’s easier to allow individual teams access to use Ansible for their deployments.
* Used **Ansible** and Ansible Tower as configuration management tool, to automate repetitive tasks, deploy applications and manage changes and automate software update and Verify functionality.
* Pipelined Application Logs from App Servers to **Elasticsearch** (ELK Stack) through **Logstash** and monitored performance of the applications and analyzed log information using **ELK** and network parameters using the tools **NAGIOS** monitoring system.
* Worked on **WebLogic** 9.x/10.x to implement zero downtime deployment using python and bash/shell script and used Jenkins to automate it.
* Worked on migrating projects from .**NET** framework 2.0 to .NET framework 4.0 (Visual Studio 2003 to Visual Studio 2010).

**Environment:**  Red hat Linux 7.x, AZURE, Docker, OpenShift, Ansible, Jenkins, Jumpstart, Terraform, Kubernetes, ANT, Maven, Ruby, Shell, Python, WebLogic Server 11g, Load Balancers, WLST, Apache Tomcat 7.x, Virtualization, Configured plug-ins for Apache HTTP server 2.4, Nginx, LDAP, JDK1.7, XML, SVN, GitHub, Nagios, Splunk.

**Company: Met Life, New York, NY Aug 2017 – Dec 2019**

**Role: DevOps Engineer**

**Responsibilities:**

* Spearheaded the implementation of a DevOps culture, automating processes through CI/CD tools like Jenkins and GitLab across Unix/Linux and Windows platforms.
* Created volumes using **Docker** File, worked on Docker container snapshots, removing images, and managing Docker volumes, and implemented a Docker automation solution for the CI/CD model.
* Creating **Shell Scripts** to automate the deployment process.
* Developing **Terraform** templates for launching AWS EC2 instances with services like auto-scaling, Load Balancer, monitoring, and security roles.
* Deployed and managed many servers utilizing both traditional and cloud-oriented providers (AWS) with the **Ansible Platform** configuration system.
* Utilized **Ansible** to manage Web applications, Environments global configuration **Files, Users, firewalls, Mount points.**
* Worked with **Terraform** key features such as Infrastructure as code, Execution plans, Resource Graphs, Change Automation and used **Terraform** for versioning infrastructure safely and efficiently.
* Managing the **GIT** using **Nexus** tools to automate the build process and used the same to share snapshots and releases of internal projects.
* Performed **WebLogic/WebSphere/Tomcat** Approver administration tasks such as Installation, Configuration, monitoring, security patches, and performance tuning in DEV, QA, and Prod ENV's
* Implemented robust code quality standards by integrating SonarQube into the development process, ensuring adherence to best practices and optimizing overall code quality.
* Created Dashboards in Nagios and CloudWatch for monitoring End-User Response Time & Requests. Familiarity with monitoring tools like New Relic.
* Designed and maintained GIT Repositories, resolving conflicts during merges.
* Worked with JIRA ticket tracking and change management as a bug tracking tool.
* Implemented Continuous Integration and Deployment processes using Jenkins and Bamboo for seamless integration with Tomcat/WebLogic Application Server.
* Managed servers using Ansible, both on traditional and AWS platforms. Configured and maintained Jenkins Pipeline for major releases, integrating with Maven for scheduled builds.
* Good understanding and hands-on experience with AWS code-pipeline, code-build, SAM template, API Gateway to implement and manage cloud native CI/CD pipelines.

**Environments:** Java, Maven, Jenkins, Linux, SonarQube, WebLogic, Subversion, Shell Scripting, AWS, Docker, GIT and Git Lab.

**Company: Verizon, Irving, Tx Jun 2015 – Jul 2017**

**Role: AWS Cloud Engineer**

**Responsibilities:**

* Worked on AWS environment setup strategies and managed multiple AWS accounts with multiple VPC’s for both production and non-prod where primary objectives included automation, build, and integration.
* Designed and implemented a comprehensive AWS infrastructure for a large-scale application, leveraging key services such as EC2, Route53, S3, RDS, Dynamo DB, SNS, SQS, and IAM within AWS CloudFormation. Emphasized high-availability, fault tolerance, and auto-scaling.
* Creating the AWS **CloudFormation** templates to orchestrate the deployment of diverse AWS services, including EC2 instances, S3 buckets, RDS databases, **Lambda functions**, and more.
* Implementing the secure key management practices using AWS Key Management Service (**KMS**), ensuring the encryption and protection of sensitive data by managing and rotating cryptographic keys effectively in accordance with industry best practices.
* Executed daily backup procedures for critical databases on **Amazon RDS**, focusing on robust strategies and managed daily data storage and retrieval operations using Amazon **S3**, ensuring scalability and security through the design and oversight of S3 buckets.
* Using the **AWS Trust Advisor** to analyze and optimize cloud infrastructure costs. Actively implemented the recommendations provided, leading to enhanced cost-efficiency, and streamlined resources.
* Orchestrated scalable **AWS EFS** for applications, managed **MSK** clusters, and implemented AWS networking solutions including **Site-to-Site VPN**, **Transit Gateway**, and Robust security measures.
* Streamlined operations with **AWS** Systems Manager, monitored resources with **CloudWatch**, and collaborated cross-functionally to align networking configurations with business needs, ensuring optimal performance and security.
* Managed container-based deployments using docker, working with docker images, docker hub and docker registries.
* Build scripts using **ANT** and **Maven** build tools in Jenkins to move one environment to another environment.
* Managed **Sonatype** **Nexus** repositories to download the artifacts during the build.
* Deployed **Java** applications to application servers in an **agile** continuous integration environment and also automated the whole process.
* Developed **CloudFormation** templates and setting up Auto scaling for EC2 instances and creating **CloudWatch** alerts, monitoring for instances also wrote scripts in Terraform and Lambda to spin up instances in Cloud.
* Deployed Applications into PROD & Pre-Prod environments with various Application server technologies like **WebLogic** & **Apache Tomcat**.
* Installed and configured applications on AWS EC2 instances, optimizing storage using S3 buckets. Managed S3 buckets and defined policies, utilizing S3 buckets and Glacier for storage and backup solutions.
* Administered IAM policies, fine-tuning workflows to grant access to various AWS resources. Implemented **AWS Route 53** to facilitate traffic routing across different regions.
* Provided end-to-end solutions for hosting web applications on AWS, seamlessly integrating with S3 buckets for enhanced functionality.

**Environments:** Java, Maven, Jenkins, Linux, SonarQube, WebLogic, Subversion, Shell Scripting, AWS, Docker, GIT and Git Lab.

**Company: Tech Mahindra, Hyderabad, India. Oct 2013- May 2015**

**Role: Associate Engineer**

**Responsibilities:**

* Managed and administrated all UNIX servers, including Linux operating systems by applying relative patches and packages at regular maintenance periods using Red Hat server, YUM, RPM tools.
* Designed and implemented AWS environments for various projects, encompassing the provisioning of EC2 instances, VPC setup, and security group configuration.
* Collaborated closely with development teams to optimize applications for AWS services, resulting in an impressive 99.99% uptime and improved overall performance.
* Implemented AWS CloudWatch and CloudTrail for comprehensive monitoring and auditing, leading to proactive issue resolution and heightened security measures.
* Maintained Amazon AWS Cloud Administration which includes services: EC2, S3, EBS, VPC, ELB, Route 53, Auto scaling, Security Groups and Cloud Formation
* Utilized AWS CloudWatch to monitor the performance environment instances for operational and performance metrics during load testing.
* Provided production support of Apache and JBOSS including installation, configuration, and management and troubleshooting.
* Oversaw the administration of Linux servers, playing a pivotal role in managing Apache/Tomcat server, mail servers, and MySQL databases across development and production environments.
* Installed and configured Linux, providing essential support for the development team's database requirements.
* Executed Linux kernel and memory upgrades, optimizing system performance, and efficiently managed swap areas. Conducted Red Hat Linux Kickstart Installations to streamline server deployment processes.