**Santhosh Kumar**

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**SUMMARY OF QUALIFICATIONS**

Around 10+ years of experience in IT industry as a DevOps Engineer with a major focus in the areas of Cloud Infrastructure Providers, Containerization Technologies, Configuration Management, CI/CD Pipeline.

* Excellent experience as a DevOps Engineer with configuration management tools such as Ansible and container orchestration tool such as Docker, OpenShift, Kubernetes. Continuous integration using Jenkins, ANT, Gradle and Maven build tools, Version control using GIT, SVN, and extensive programming in Shell scripting.
* Experience in installation, configuration, deployment and management of Enterprise J2EE Applications in a clustered and non-clustered environment using Oracle WebLogic Application Server v8.1/9.x/10.x/11g/12c.
* Managed projects in Porting Legacy Infrastructure to AWS using various services like EC2, Auto-scaling, ELB, SNS, Security, RDS, Elastic Cache, EBS, S3, VPC, Route53, ELB.
* Working as DevOps/Build & Release Engineer Administration, supported different applications to configure and automate in SIT, CTE, Perf, Prod and various environments.
* Experience in multiple AWS services ranging from IAM, EC2, Storage (S3, EFS, Glacier), Networking (VPC, Route 53) management Tools (CloudWatch, CloudFormation) etc.
* Desgning highly available, cost effective and fault tolerant systems using multiple EC2 instances, Auto Scaling, Elastic Load Balance and Cloud Formation
* Manage and configure AKAMAI CDN settings to optimize content delivery.
* Proficient at utilizing Infrastructure as Code (IAC) tools such as Terraform, Serverless, and AWS CDK to architect, deploy, and manage cloud resources seamlessly
* Design, deploy, and manage containerized applications using OpenShift.
* Involved in performance tuning and monitoring of both SQL and PL/SQL blocks.
* Implement and manage Infrastructure as Code for Big Data infrastructure using tools like Terraform or Ansible.
* Extensive experience in designing, deploying, and managing Kubernetes clusters, ensuring high availability, scalability, and security of containerized applications.
* Set up monitoring tools to track CDN performance metrics and ensure optimal content delivery speed.
* Proficient in Kubernetes architecture, including nodes, pods, services, deployments, namespaces, and controllers, with a deep understanding of Kubernetes networking and storage solutions.
* Application Deployments & Environment configuration using Ansible.
* Created Docker images, upload/download in and out from the Docker Registry.
* Worked on setting up new tools such as OpenShift with Docker to assist with auto-scaling, continuous integration, rolling updates with no downtime.
* Excellent organizational and analytical abilities tamed with effective oral and communication skills.
* Experience working with configuration management tools such as Jenkins, Git, Artifactory, Teamforge, ServiceNow and Sonar.

**Work Experience:**

**Zulily Feb 2023 – Till Date**

**Role: AWS DevOps Engineer Lead**

**Project Description:**

Zulily LLC, generally involves bridging the gap between development and operations teams to improve collaboration and productivity in the software development and delivery process. While specific responsibilities may vary based on the company's needs.

**Responsibilities:**

* Worked on Amazon AWS EC2 cloud services for installing, configuring and troubleshooting on various Amazon images like Amazon Linux AMI, Redhat 4.x, 5.x.6.x,7.x, Ubuntu 12.x, 13.x, 14.x, 15.x.
* Configured S3 versioning and lifecycle policies to backup files and archive files in Glacier.
* Maintained DNS records using Route53. Used Amazon Route53 to manage DNS zones and also give public DNS names to elastic load balancers IP's.
* Used Amazon RDS Multi-AZ for automatic failover and high availability at the database tier for MySQL workloads.
* Maintain detailed documentation for AKAMAI CDN configurations, automation scripts, and deployment processes.
* Implement and maintain CI/CD pipelines for Big Data applications and infrastructure.
* Worked on setting up new tools such as OpenShift with Docker to assist with auto scaling, continuous integration, rolling updates with no downtime
* Expertise in Architecting and Implementing Azure Service Offering, such as Azure cloud services, Azure storage, IIS, Azure Active Directory (AD), Azure Resource Manager (ARM), Azure Storage, Azure, Blob Storage, Azure VMs, SQL Database, Azure Functions, Azure Service Fabric, Azure Monitor, and Azure Service Bus.
* Automate testing, building, and deployment of Big Data jobs and workflows.
* Work with Kubernetes concepts and OpenShift-specific features for container orchestration.
* Experience in architecting and configuring secure VPC through private and public networks in AWS.
* Configured and managed various AWS Services including EC2, RDS, VPC, S3, Glacier, Cloud Watch, Cloud Front, Elastic Cache, SQS, SNS, API gateway, SDK, AMI and Route 53.
* Infrastructure management, infrastructure & application custom metrics and performance monitoring using CloudWatch, DataDog, Logstash, Splunk.
* Utilized Python scripts with Boto3 to supplement automation provided by Ansible and Terraform for tasks such as encrypting EBS volumes, backing up AMIs and scheduling Lambda functions for routine AWS tasks.
* Work closely with AKAMAI support for issue resolution and to stay informed about new features and best practices.
* Provision and manage clusters for Big Data frameworks like Hadoop, Spark, and Kafka.
* Implement Infrastructure as Code using tools like Ansible, Terraform, or OpenShift's native tools.
* Created on-demand tables on S3 files using Lambda Functions and AWS Glue using Python.
* Used Amazon IAM to grant fine-grained access to AWS resources to users. Also managed roles and permissions of users to AWS account through IAM.
* Experience in spinning up the multiple EKS clusters and AWS resources with Terraform
* Hands on experience on creating the Helm charts to deploy the multiple application charts into EKS cluster
* Exposure to MS SQL 2008 and SQL 2012 databases
* Experience in writing multiple terraform resources to spin up multiple resources in the AWS cloud
* Demonstrated expertise in deploying applications using Kubernetes manifests (YAML/JSON) and Helm charts, managing the application lifecycle effectively.
* Implement and maintain CI/CD pipelines for automated testing, building, and deploying applications on OpenShift.
* Strong expertise in Azure IaaS implementations and automating deployments.
* Hands-on experience in creating Azure ARM Templates and PowerShell Scripts.
* Experienced with setup, configuration and maintain ELK stack (Elasticsearch, Logstash and Kibana) to stream system and application logs using Kafka. Used Painless scripting and Visualization tools in Kibana to build efficient application metrics monitors
* Proficient in orchestrating complex microservices architectures and managing multi-container applications using Kubernetes.
* Implement monitoring solutions for Big Data clusters and applications.
* Hands on experience on creating Terraform files to provision and deploy the Kubernetes cluster in AKS, EKS and GKE.
* Proficient in setting up, configuring, and managing Kubernetes clusters using Amazon EKS, ensuring seamless integration with AWS services.
* Experience creating and maintaining terraform files for different modules to create the infrastructure in different clouds such as creation of VPC’s, SUBNET’s, EC2, Azure resource group creation, GCP project creations etc.
* Hand on experience spinning up and administrating the KOPS Cluster
* Experience deploying and maintain the Datadog in the EKS clusters and creating the multiple dashboards as needed.
* Created and managed multiple GitLab CI files to automate end to end build and deployment pipeline
* Experience in creating multiple re-usable git lab CI templates
* Experience in integrating the flux into the Gitlab pipelines as part of GitOps.
* Proficient in using Flux as a GitOps tool to automate Kubernetes deployments and manage infrastructure as code.
* Expertise in configuring Flux to monitor and synchronize Kubernetes resources with Git repositories.
* Developed GitOps workflows using Flux to streamline the deployment process, increase efficiency, and ensure consistency across multiple environments.
* Experience troubleshooting and resolving issues related to Flux and GitOps workflows.
* Expertise in using GitLab as a version control system for code repositories and as a DevOps platform to manage continuous integration and continuous deployment pipelines.
* Proficient in using GitLab CI/CD pipelines to automate build, test, and deployment processes for applications and infrastructure.
* Developed custom Terraform modules using Python to encapsulate reusable infrastructure configurations, simplifying deployment for development teams and enhancing maintainability.
* Proficient in using Datadog as a monitoring and analytics platform to gain visibility into application and infrastructure performance.
* Experience configuring Datadog agents and integrations to collect metrics, logs, and traces from various sources.
* Created Terraform Modules to spin up infrastructure in the AWS environments through Jenkins CI/CD pipelines. Services used in this infrastructure set up are Elastic Kubernetes Service (EKS), AWS Code Build, VPC, Subnets, Internet and Nat Gateways, Lambda Functions, API gateways, S3, IAM roles.
* Developed custom dashboards and alerts in Datadog to monitor key performance indicators and troubleshoot issues.

**Technical Tools:** AWS, GIT, MAVEN, JENKINS, JIRA, VAGRANT, PUPPET, ANSIBLE, AZURE, GCP, HADOOP, AKS, GKE, EKS, KUBURENETES, BIG DATA, OPENSHIFT, AKAMAI CDN, TERRAFORM, HELM, FLUX, GITLAB, DATADOG, KOPS, CDK, AWS.

**o9 Solutions March 2022 – Jan 2023**

**Role: Sr. DevOps Engineer**

**Responsibilities:**

* Building massively scalable network-oriented software for the Elastic Load Balancing (ELB) service.
* Configured S3 versioning and lifecycle policies to backup files and archive files in Glacier.
* Maintained DNS records usingRoute53. Used Amazon Route53 to manage DNS zones and also give public DNS names to elastic load balancers IPs
* Used Cloud formation and launch configurations to automate repeatable provisioning of AWS resources for applications.
* Work closely with AKAMAI CDN support for issue resolution and to stay informed about new features and best practices.
* Performance tuning of SQL queries and stored procedures using SQL Profiler and Index Tuning Wizard.
* Implemented Elastic Search, Kibana, Logstash and Filebeat for logging.
* Deployed and configured Elastic Cache, Log stash and Kibana (ELK) for log analytics, full text search, application monitoring in integration with AWS Lambda and Cloud Watch.
* Experience in architecting and configuring secure VPC through private and public networks in AWS.
* Experience in managing Multiple services in AWS in large scale multiple environments
* Used Ansible Playbooks as IaaC to spin up and provision the infrastructure within the minutes.
* Experience in writing the Ansible Playbooks to automate the different tasks for Infrastructure and Applications deployment.
* Experience Provisioning the o9 SCM platform into different customers infrastructures such as Google, Walmart, Starbucks, Delloite, etc.
* Designed and implemented automation solutions using Ansible and Python scripts to manage and configure infrastructure.
* Creating multiple resources in the multiple subscriptions in the Azure.
* Hand on experience is developing the Terragrunt profiles as wrapper to deploy the Terraform over the Infrastructure.
* Experience writing the helm charts as part of the Kubernetes cluster spin up in EKS, AKS and GKE.
* Worked on provisioning multiple services such as Compute Engine, IAM, Cloud storage, Project creation in different projects of Google cloud platform in huge environment.
* Experience in creation of network firewalls and tagging across three public clouds in AWS, Azure and GCP.
* Created and configured the Jenkins as CI tool.
* Experience installing the Null watchers and ELK heartbeats across all services to monitor the health and connectivity.
* Experience in creating the ELK dashboards and sharing it with the Business and dev team to keep monitoring the different services alert.
* Created monitors, alarms and notifications for EC2 hosts using CloudWatch.
* Creating snapshots and amazon machine images (AMIs) of the instances for backup and creating clone instances.
* Implement and enforce security measures for Big Data environments.
* Understand and leverage AKAMAI CDN for programmatic interactions with the CDN platform.
* Designed Terraform templates to create custom sized VPC, subnets, NAT to ensure successful deployment of Web applications and database templates.
* Setup and build AWS infrastructure various resources, VPC EC2, S3, IAM, EBS, Security Group, Auto Scaling, and RDS in Cloud Formation JSON templates.
* Automating backups by shell for Linux and PowerShell scripts for windows to transfer data in S3 bucket.
* Using Jenkins AWS CodeDeploy plugin to deploy to AWS.
* Carried deployments and builds on various environments using continuous integration tool Jenkins.
* Hands on experience in troubleshooting the Hadoop Cluster issue.
* Experience is spinning up Hadoop cluster in VM’s across all three public clouds.
* Experience handling different Hadoop services across different environments and in different customers on prem environment
* Implemented Docker automation solution for Continuous integration / Continuous Delivery model.
* Refined automation components with scripting and configuration management (ansible).
* Configuration Automation and Centralized Management with Ansible.
* Implemented Ansible to manage all existing servers and automate the build/configuration of new servers.
* Optimize and tune Big Data applications and clusters for performance.
* Experience using ArgoCD to manage Kubernetes applications across multiple clusters and environments
* Strong understanding of GitOps principles and best practices, and ability to evangelize these practices to development and operations teams
* Experience with ArgoCD's advanced features, such as custom resource definitions, helm charts, and kustomize overlays
* Ability to troubleshoot and debug issues with ArgoCD and related components, and a commitment to continuous improvement and learning in a rapidly evolving technology landscape

**Technical Tools:** AWS, GIT, MAVEN, JENKINS, JIRA, VAGRANT, PUPPET, BIG DATA , ANSIBLE, AZURE, GCP, HADOOP, AKS, GKE, EKS, KUBURENETES, TERRAFORM, AKAMAI CDN, TERRAGRUNT, OPENSHIFT

**CLIENT: Freddie Mac Sep’16-March 2022**

**Role: DevOps Engineer**

**Responsibilities:**

* Hands on experience creating/maintaining jobs in Jenkins
* Experience in integrating SonarQube, Fortify, Junit, Splunk, with Jenkins
* Experience with. Java web environments (IIS, SharePoint, WebLogic, JBoss, Tomcat, etc.)
* Experience in Configuration management
* Worked on Build and Continuous Integration tools like Maven, Hudson, Jenkins
* Hands on experience with Version Control Systems like GIT - Maintaining release branches and promoting code to Master Branch.
* Managed source code tagging, branching, and merging. Manage multiple release streams within the source code management tool.
* Identify opportunities for improvement and optimization of CDN configurations and processes.
* Developed and executed scripts and automate processes where possible to improve efficiencies and accuracy of the software build, integration, release, and deployment processes.
* Used MAVEN scripts to automate the build process and also installed Jfrog Artifactory and used it as a Private Repository Manager with-in the company
* Worked with different file formats like JSON, AVRO and parquet and compression techniques like snappy and developed python code for different tasks, dependencies, SLA watcher and time sensor for each job for workflow management and automation using Airflow tool.
* Generation of periodic reports based on statistical analysis of data using SQL Server Reporting Services (SSRS).
* Created Data Testing Automation frameworks using Python by utilizing packages like Pandas, NumPy, and more. That eliminated manual testing, improved accuracy to 99.99%, and saved 100+ hours of time monthly on testing activities.
* Developed Ansible playbooks which is the entry point for Ansible provisioning, where the automation is defined through tasks using YAML format. Experience with ticketing system of Service Now, Login to Service Now and monitor the queues of change tickets assigned to our group.
* Create or Modify Jobs in Jenkins when a build script is changed or modified by the project team. Compile and create the packages in Jenkins and push it to target environments UNIX, Windows, Linux platforms.
* Installed and Configured Jenkins for CI/Automation tool with plugins and also created jobs.
* Managed Docker orchestration and Docker containerization using Kubernetes.
* Worked on Redis, Elastic Cache and Elastic Search features of AWS.
* Used OpenShift to orchestrate the deployment, scaling and management of Docker Containers.
* Worked on setting up new tools such as OpenShift with Docker to assist with auto scaling, continuous integration, rolling updates with no downtime
* Infrastructure management, infrastructure & application custom metrics and performance monitoring using CloudWatch, DataDog, Logstash, Splunk.
* Working on encrypting various AWS services (S3, EBS, AMI’s) with KMS.
* Maintained and developed the deployment spec, definition files, Config Maps, Secrets for Applications which is running on Kubernetes
* Created and Maintained the Service definition files which will be used during the deployment process.
* Extensive experience on writing the deployment spec files for Rolling and Blue/Green deployments
* Worked and administrated Jfrog Artifactory to upload artifacts and to maintain the Central Production Artifactory without and duplicates Artifacts.
* Worked with Project teams to setup the SonarQube for respective projects to meet the guidelines setup by Change management team.
* Performed release packaging following established process.
* Provided tool support to project teams.

**Environment:** JAVA, GIT, JENKINS, SERVICE NOW, GIT, UNIX, SHELL SCRIPT, OPENSHIFT, ANT, MAVEN, CHEF, LINUX, SONAR, FORTIFY, ARTIFACTORY, ANSIBLE.

**CLIENT: ZVST Cloud tech Aug’14-Aug 16**

**Role: DevOps Engineer**

**Responsibilities:**

* Created and maintained Continuous Integration (CI) using tools Azure DevOps over multiple environments to facilitate an agile development process, which is automated and repeatable, enabling teams to safely deploy code many times a day while ensuring Azure Kubernetes Services (AKS) are supported
* Develop and maintain the automated test scripts using Java, C++ programming languages
* Develop software to monitor and improve end-to-end platform performance, identify runtime deficiencies, find potential failures, and fix production issues
* Conduct Sanity, Smoke, Regression, Benchmark, Baseline, Stress, Endurance, Network and Load Tests using ALM-PC, Visual Studio, LoadRunner, JMeter, GIT, Jenkins, Azure DevOps, Selenium WebDriver, Appium, TestNg
* Document procedures, configurations, and best practices for OpenShift deployment and management.
* Monitor highly complex and cloud application servers (Web, App, Database) using Dynatrace, AppDynamics, Splunk, Azure Portal, AWS Cloud watch, Data dog, Willy Introscope, Elastic search
* Develop working codes to automate the test results preparation using Python script, Javascript
* Develop software systems, using scientific analysis and mathematical models to predict and measure performance outcome and consequences of design
* Develop software system performance validation procedures and troubleshoot program, bottlenecks and system malfunctions to optimize application performance
* Develop testing programs that address areas such as database impacts, software scenarios, regression testing, performance testing, negative testing, error or bug retests, or usability
* Identify and remediate architectural problems in scalability, availability and reliability and be responsible for driving feedback and new design ideas back into the DevSecOps platform team.
* Build and Maintained Docker container clusters managed by Kubernetes on GCP and Utilized Kubernetes and Docker for the runtime environment of the CI/CD system to build, test deploy.
* Build deep, full-stack knowledge of the high complex platforms and applications and work to automate deployment processes, run-time operations, and provide non- disruptive releases
* Participate in planning meetings, product design reviews to provide input on functional, non-functional requirements, product designs, schedules, or potential problems
* Prepare reports or correspondence concerning project specifications, activities, or status
* Maintain application reliability and uptime SLAs throughout the application lifecycle using programmatic self-healing and software automation
* Analyze information to determine, recommend, and plan installation of a new system or modification of an existing system to optimize the application performance
* Serve as a lead by providing direction to less experienced technical initiative support staff while serving in an initiative leadership role and provides direction and guidance to less experienced staff to resolve critical and non-routine scenarios
* Experience in Agile performance testing, including developing, integrating, executing, and reporting results of complex tests with a high degree of autonomy
* Experience in explaining complex concepts in a graphic-rich style, including using data analytics and visualization tools
* Experience in operating in the Azure Cloud environment and AppInsight, including creating dashboards, Warning and Alert thresholds
* Experience in XML, JSON, AJAX, REST, and the following JavaScript libraries and toolkits (DOJO, AngularJS, Modernizr, Bootstrap, JQuery, and MooTools)
* Experience with the impact of network infrastructure and other infrastructure architectures and topologies can affect performance, including performance benchmarking and system and software optimization

**EDUCATION:**

Bachelors in ECE – JNTU 2014

**TECHNICAL SKILLS AND COURSES:**

**Operating Systems** : UNIX, LINUX, 2000/ XP, RHEL 4, 5, Ubuntu, Windows, Solr.

**Application Servers** : Tomcat 7.0.x/6.0.x, Oracle Fusion Middleware, Web Logic 12cR1/11gR1/10.3.x, JBoss 6.4.x

**Web Servers** : Apache 2.2.x, IIS, Nifi

**Scripting** : WLST, Shell.

**DevOps Tools** : Confluence, Jenkins, Ansible, GIT, Maven, Jfrog Artifactory, Sonar,

Fortify, Docker, Kubernetes, Team forge, Azure Devops, ELASTIC CACHE, EKS, ELASTIC SEARCH, Terraform, Terr grunt, Elastic, Logstash, Kibana.

**Cloud**  : AWS, Azure, Google

**CERTIFICATIONS/TRAININGS**

* Kubernetes certified administrator (CKA), The Linux Foundation
* AWS Certified Developer Associate - AWS-ADEV-9971