**Rajasekhar Ch**

**Sr. SRE / DevOps Engineer**

**Venkat.p@shoolin-inc.com**

**Ph: 732-746-0664**

**Professional Summary:**

* **AWS Certified Solution Architect –Associate.**
* Around 9+ years of IT experience as **AWS Cloud computing, DevOps/Site Reliability Engineer, Build and Release Engineer, System Engineer and Unix/Linux Administrator**
* Provisioning EC2 instances and have knowledge on all resource areas of **EC2** like Instances, Dedicated hosts, volumes, Keypairs, Elastic IP's, Snapshots, Load Balancers and Security Groups.
* Expertise in Amazon AWS Cloud Administration which includes services like: EC2, S3, **EBS, VPC, ELB, AMI, SNS, RDS, IAM**, **Route 53**, Auto scaling, Cloud Front, Cloud Watch, Cloud Trail, Cloud Formation, OPS Work, Security Groups.
* Connected user requests to infrastructure running in **AWS** such as **Amazon EC2 instances, Elastic Load Balancing** load balancers, or Amazon **S3 buckets** and outside AWS using **Amazon Route 53.**
* Experienced in Administration of Production, Development and Test environments carrying different operating system platforms like **Windows, Ubuntu, Red Hat Linux, Centos** and **Solaris servers**.
* Profusely worked on Version control tools like Subversion, GIT, clear case to track changes made by different people in source code.
* Profoundly did **Continuous integration** using Hudson's/Jenkins, Anthill pro, Team city and Bamboo, which requires developers to integrate code into a shared repository several times a day.
* Experienced in working on **DevOps/Agile** operations process and tools area (Code review, unit test automation, Build & Release automation, Environment, Service and Change Management).
* Worked in an agile development team to deliver an end-to-end **continuous integration/continuous delivery** product in an open-source environment using tools like **Jenkins.**
* Used **Terraform** for server provisioning and infrastructure automation in a **SaaS** (Software as a Service) environment...
* Experienced with version control tools like **GIT, CVS, Bitbucket** and SVN. In depth knowledge on source controller concepts like Branches, Tags and Merges
* Worked on several DevOps tools Subversion **(SVN), GIT, Ansible and Docker** for Build, deploy, continuous integration to help developers work in an **Agile environment**.
* Setting up **UNIX/Linux** environments for various applications. Worked on different Linux distributions like **Ubuntu, RHEL, Amazon Linux, CentOS**.
* Worked with container-based deployments using **Docker**, with **Docker** images and have a good knowledge on Vagrant.
* Great communication and interpersonal skills, ability to learn, implement and explain new tools and technologies quickly and ability to work within stipulated timelines.
* Highly motivated and able to work with low supervision independently as well as in a team environment. Have practical and terrific trouble shooting skills.
* Hands-on experience in Azure cloud worked on Azure web application, App services, Azure SQL Database, Azure Blob storage, Azure Functions, Virtual machines, Fabric controller, Azure AD, Azure Data Factory, Azure Service Bus, and notification hub. Proficient in using Azure service fabric to package, deploy, manage scalable and reliable microservices and containers.
* Extensively used Terraform to a reliable version and created infrastructure on Azure. Also created resources, using Azure Terraform modules, and automated infrastructure management. Used Terraform to map more complex dependencies and identify the network issues.
* Managed **Kubernetes cluster** in the rollback and rollouts methods in the deployment strategies. Integrated Istio and **helm packages** with Kubernetes clusters for the service mesh.
* Experience in **Google Kubernetes Engine GKE** with Spinnaker for continuous delivery of applications to the engine in different stages, Google App services for deploying microservices in different environments, GCE instances, assigning IAM for projects, Cloud Shell CLI.
* Deployed microservices-based applications on Azure Kubernetes by using Azure Kubernetes Service (AKS), Ingress API Gateway, MySQL, SQL Databases, and Cosmo DB for stateless storage of external data, and set up reverse proxy Nginx servers and encrypting with SSL and TLS Skills.
* Having good Experience in implementing security and compliance policies in a production environment and have Strong analytical and problem-solving skills.
* Implemented the Docker for wrapping up the final code and setting up the development and testing environment using Docker Hub, Docker Swarm, and Docker Container Network.
* Having experience in work on complex and challenging problems, develop innovative solutions, and contribute to a dynamic and collaborative team environment, continuous improvement, like availability, performance, and capacity.

**Technical Skills:**

|  |  |  |  |
| --- | --- | --- | --- |
| **SKILLS** | **PROFICIENCY** | **TOTAL YEARS** | **LAST USED** |
| **Version Control:** GIT, Bitbucket, TFS | Expert | 2-5 | 2023 |
| **Build and Deployment:** ANT, Maven, Gradle, Hudson/Jenkins, | Expert | 3-6 | 2023 |
| **Repository management and Monitoring Tools:** Artifactory, Nexus, J Frog, Splunk, agios, Cloud watch, new relic, Data Dog | Advanced | 2-5 | 2023 |
| **Configuration Management:** Terraform, Puppet, chef, Ansible | Expert | 3-5 | 2023 |
| **Operating Systems:** Linux, Ubuntu, RHEL 6-7, Unix, Windows 7-8-10, Vagrant | Advanced | 3-8 | 2023 |
| **Scripts/Programming:** Python, Power Shell, JSON, XML, Ruby, Node.js, .Net, Go Lang, C++. | Intermediate | 2-3 | 2023 |
| **Databases:** MySQL, PostgreSQL, Dynamo DB, Oracle, Sybase, NoSQL, DB2 | Advanced | 3-6 | 2023 |
| **Web App servers:** Apache HTTP Server, WebLogic, Spark, Tomcat, WebSphere, Jboss, Nginx | Expert | 2-5 | 2023 |
| **Cloud Services:** AWS, Azure, OpenStack, EFS, Elastic cache, RDS, VPC, EC2, S3 | Advanced | 2-5 | 2023 |
| **Containers:** Docker, Kubernetes, OpenShift, ECS, Mesos | Expert | 4-6 | 2023 |
| **Networking/ Protocols:** TCP/IP, SOAP, REST API, Routing Protocols, Subnets, VPN | Intermediate | 3-5 | 2023 |
| **Testing tools:** Selenium, Junit | Advanced | 2-3 | 2023 |

**WORK EXPERIENCE:**

**Role: Site Reliability / DevOps Engineer**

**Client: Charter Communication ,Morrisville,NC Sept 2020 – Current**

**Responsibilities:**

* Utilized Kubernetes and Docker for the runtime environment of the CI/CD system to build, test deploy.
* Installed and administered Docker and worked with Docker for convenient environment setup for development and testing.
* Provisioning infrastructure with terraform / Chef and using Ansible for configuration management.
* Migration of apps from orchestrating tools like Marathon to Kubernetes.
* Deploying applications on Kubernetes using Helm Charts.
* Provide seamless platform upgrades without impact.
* Support labs for the purpose of development and testing of the platform
* Provide 24x7 support for VCOS platform for applications ( Cloud) in various datacenters.
* Setting up and configuring of Nagios, improved monitoring in Nagios and custom plugins.
* Installed DataDog Agent in all Service for monitoring the resources.
* Automated AWS components like EC2 instances, Security groups, ELB, RDS, IAM through AWS Cloud information templates.
* Implemented Networking policies for Docker containers with open-source development tools like Docker containers.
* Worked on Jira for sprint tasks, issue tracking and for submitting access issue tickets.
* Worked on configuring S3 versioning and lifecycle policies for backing up files and archive those baked up files in Glacier and created monitors, alarms, and notifications for EC2 hosts using Cloud Watch.
* Automated Datadog Dashboards with the stack through Terraform Scripts and used CloudWatch and Datadog to monitor real-time granular metrics of all the AWS Services and configured individual dashboards for each resource Agents.
* Strong knowledge of Monitoring and log analytics tools like Nagios, Dynatrace, New Relic, Splunk, Elasticsearch, Logstash, and Kibana (ELK), Grafana, Datadog, Sumo Logic, AppDynamics.
* Working experience with Kubernetes, Mesos, Docker Swarm.
* Maintaining Continuous Integration, Continuous Delivery and Continuous Deployment in multiple environments like DEV, TEST, STAGE & PROD.
* Experience in implementing **Terraform** as infrastructure as a code(IaC) for execution plans, resource graph, change automation and managed cloud infrastructure as code(IaC) using **Terraform.**
* Experience in **Orchestration** and migration of **CI/CD** processes using **Cloud Formation** and **Terraform Templates.**
* Proficient in scripting **AWS AMIs deployment,** bootstrapping and pre - baking **AMIs** with Packer.
* Experience in using **Jenkins** to drive all **micro-services** builds out to the **Docker** registry and then deployed to **Kubernetes.**
* Created Pods and managed using **Kubernetes.** Managed a PaaS for deployments using **Docker, Kubernetes,** and **Chef,** which reduced considerably deployment risks and **used Kubernetes** during debugging and leading up to production when multiple application build must be tested for stability.
* Good understanding of Open Shift platform for managing **Docker containers** using **Docker swarm, Kubernetes Clusters**.
* Maintained and managed nomad and consul key value storage for micro service architecture using Docker for services.
* Implemented **ISTIO** as a service mesh component to observe and control network flow across services running in multiple Kubernetes clusters.
* Worked on **Confluence** for documenting tasks performed on a daily basis.
* Installation and configuration of MySQL and database on Red Hat Servers.
* Utilize the **LAMP stack** (Linux, Apache, MySQL, PHP /Perl) to meet customer needs. Designing and implementing for fully automated server build management, monitoring, and deployment by using **DevOps** Technologies like **AWS, Ansible, git, GitHub,** and **Jenkins.**
* Creating **Lambda** function to automate snapshot back up on AWS and set up the scheduled backup.
* Written scripts in terraform when required and Parser files of complexity when required.
* Worked on converting existing AWS infrastructure to server less architecture, deploying via Terraform formation templates and experienced in configuring Azure virtual networks (VNETS), Subnets.
* DHCP address blocks, DNS settings, routing.
* Worked on migrating the Legacy application into GCP platform and managing the GCP services.
* Compute engine, cloud storage, Big Query, VPC, Stack Driver, Load Balancing and IAM.
* Used Terraform in all clouds (AWS, AZURE, GCP in to deploy the infrastructure necessary to create production environments for software development process.
* Converted existing Terraform modules that had version conflicts to utilize Cloud formation templates di worked with Terraform to create stacks in AWS and updated the Terraform scripts based on the require basis.
* Used Kubernetes to orchestrate the deployment, scaling and management of Docker Containers.
* Implemented a Continuous Delivery framework using Jenkins, Puppet, Maven, and Nexus in Linux environment.
* Handled integration of Maven/Nexus, Jenkins, GIT, Confluence and Jira.

**Environment:** Kubernetes, Ansible, Azure, Terraform, Suricata, GIT, JIRA, JFrog Artifactory, Confluence, Python, Apache, Redis, API, TCP/IP, Grafana, Postman, Data Dog, Helm Charts, Puppet, DNS.

**Role: Sr. DevOps Engineer**

**Client: Citi Group, Irving, Tx Sept 2018 – Aug 2020**

**Responsibilities:**

* Building/Maintaining Docker container clusters managed by Kubernetes, Linux, Bash, GIT, Docker, on AWS.
* Utilized Kubernetes and Docker for the runtime environment of the CI/CD system to build, test deploy.
* Extensive usage of PowerShell scripts for scripting and automating the entire Site Collection/Sub Sites creation process.
* Installed and administered Docker and worked with Docker for convenient environment setup for development and testing.
* Working with the container-based technologies like Docker, Kubernetes along with development of Microservices architecture using Flask microframework.
* Deploying applications on Kubernetes using Terraform, Helm Charts.
* Defined AWS Security Groups which acted as virtual firewalls that controlled the traffic allowed to reach one or more AWS EC2 instances. Used Elastic cache to setup, manage and scale a distributed cache-in environment in the cloud.
* Working AZ Cloud resources and migrating applications.
* Testing the microservices API endpoints using Swagger (Rest plus), Postman.
* Developed an ETL process to pull dealer data from snowflake to Oracle for Drive Train Consumer needs.
* Deploying Elasticsearch to assist with environment logging requirements. Created different variations of Kibana dashboard running different instances of Elasticsearch, Logstash and Kibana and Kubernetes.
* Responsible for planning index and shards and index TTL strategies in Elasticsearch. Troubleshooting Elasticsearch errors.
* Successfully converted existing **uDeploy** pipelines into **Jenkins jobs,** ensuring minimal disruption and improved workflows.
* Managed the migration of configuration data, environments, and related information from **uDeploy** to **Jenkins,** ensuring data integrity**.**
* Implemented robust authentication and authorization mechanisms to secure **API** endpoints, safeguarding sensitive data.
* Created comprehensive documentation for **API endpoints, Jenkins** job configurations, and **CI/CD** workflows to facilitate knowledge transfer**.**
* Conducted thorough testing of Jenkins-based pipelines, identifying and resolving issues to ensure reliability and efficiency.
* PostgreSQL widely using for open-source RDBMS while snowflake is multi-structured data handler.
* Involved in writing Java API for AWS Lambda to manage some of the AWS services and Kubernetes.
* Have designed Lambda function to detect and trigger the application whenever there a document is uploaded to AWS s3 bucket.
* Migration project from Oracle to Snowflake warehouse to meet the SLA of customer needs, Created ETL mapping document and ETL design templates for the development team.
* Created ETL pipelines using Stream Analytics and Data Factory to ingest data from Event Hubs and Topics into SQL Data Warehouse.
* Upgraded and patched Oracle database on Windows and Unix servers
* Scheduled various AWS Lambda functions to trigger various AWS resources.

**Environment:** SVN, Maven, Ansible, GIT, JIRA, WebLogic, JFrog Artifactory, AWS, Cloud, IAM, Jenkins, Python, My SQL, Redis, API, TCP/IP, Grafana, Postman, Swagger, Bitbucket, Redshift, Helm Charts.

**Role: DevOps Engineer**

**Client:FedEx, Colorado Springs, Colorado June 2016– July 2018**

**Responsibilities:**

* Implemented and maintained the monitoring and alerting of production and corporate servers/storage using AWS Cloud watch.
* Worked on cloud environment AWS, created EC2 instances and migrated various applications to AWS.
* Written Cloud formation templates and deployed AWS resources using the same.
* Defined AWS Security Groups which acted as virtual firewalls that controlled the traffic allowed to reach one or more AWS EC2 instances. Used Elastic cache to setup, manage and scale a distributed cache-in environment in the cloud.
* Expert level experience with AWS DevOps tools, technologies and APIs associated with IAM, Cloud Formation, Cloud Watch, AIMs, SNS, EC2, EBS, S3, RDS, VPC, ELB, IAM, Route 53, Security Groupsetc.
* Managed local deployments in Kubernetes, creating local cluster and deploying application containers.
* Supported small to medium sized projects using GitHub and administrate GitHub user setups. Worked on integrating GitHub into the continuous Integration (CI) environment along with Jenkins
* Worked extensively with API Management product of Apigee edge in consuming the Api’s in implementing customer use cases. Performed Service Level Testing for Web services using Soap UI, Postman and Apigee.
* Used Puppet to automate Configuration management and to manage Web Applications, Config Files, Data Base, Commands, Users Mount Points and Packages.
* Created Jira workflows to automate deployment and issue tracking.
* set up build notifications, created the users and assigned the permissions on bamboo.
* Deploy all build artifacts in tomcat server and resolved the issues for any failed jobs.
* Strong in building Object Oriented applications using Java, python, writing Shell Scripts on UNIX.
* Managing Users and Groups in Subversion (SVN) and troubleshooting client specific issues and user issues.
* Wrote Ansible Playbooks with Python SSH as the Wrapper to Manage Configurations of AWS Nodes and Test Playbooks on AWS instances using Python.

**Environment:** Ansible, Bash, JIRA, WebLogic, Nexus, Artifactory, AWS, Cloud, IAM, Open stack, Jenkins, Python, My SQL, Dynamo DB, NoSQL, API, TCP/IP, Nagios.

**Role: DevOps Engineer**

**Client: Dhatsol, Hyderabad,India. Apr 2013 – Aug 2015**

**Responsibilities:**

* Developed and Implemented software release management strategies for various applications according to agile process
* Deployed java applications to application servers in agile continuous integration environment and automated the whole process.
* Designed and Developed Jenkins build deployments Installed and configured Nexus repository manager for sharing artifacts between internal teams and created proxy Nexus repositories to speed up the build process.
* Involved in editing the existing ANT/MAVEN files in case of errors or changes in the project environments.
* Installed and configured GIT and GITHUB. Implemented and maintained the branching and build/release strategies utilizing GIT.
* Configured and monitored multiple servers using Chef. Defined Chef Server and Workstation to manage and configure nodes.
* Installed Chef Server Enterprise on premise/workstation/bootstrapped the nodes using knife and automated by testing Chef recipes/cookbooks with test-kitchen/chef spec.
* Used Chef and other configuration management tools to deploy consistent infrastructure code across multiple environments.
* 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
* Deployed the build artifacts into environments like QA, UAT and production according to the build life cycle.
* Verify deployed application is initializing and running efficiently. Verify the application logging and server logging are in place. Run unit test to verify the individual functionalities are working as expected.

**Environment:** Subversion (SVN), Chef, Jenkins, Confluence, Java/J2EE, ANT, MAVEN, Nexus, Web Logic, Shell Script.

**Education:**

* Master’s in information system security from University of the Cumberland’s, Kentucky, United States. (2017).
* Bachelors in computer science engineering from JNTU Kakinada, India (2013).