**SAI A. KOLIPARTHI**

Email: [reachmee24@gmail.com](mailto:reachmee24@gmail.com), Phone: (973) 821 - 3797

## SUMMARY OF EXPERIENCE

* 9+ years of experience in the field of **DevOps, Cloud Services**. Also have a good exposure with **Web frameworks** and **Data Analysis**.
* Proficient with the cloud and virtualization platforms mainly **Nutanix Prism**, **AWS**, and **ECS Object Store**. Also, have a good exposure with **Azure** services.
* Experienced in AWS platform and the services offered like **EC2, S3, RDS, KMS, VPCs, Route Tables and Subnets, SNS, ELB, Auto Scaling**. Implemented **SCPs** and **Lambda** functions to monitor the cost and security of the environment.
* Also experienced in the Cloud monitoring services including **CloudFront, CloudWatch** and in the Cloud automation services like **CloudFormation, Terraform and Packer**.
* Experienced in DevOps tools mainly **Git, Jenkins, Maven, Gradle, Docker and Kubernetes**.
* Worked with Docker and Kubernetes solutions in AWS – **ECS, EKS** and in Nutanix – **Karbon and Calm**.
* Built and maintained Docker container clusters managed by Kubernetes Linux, Bash, GIT and Docker.
* Worked with provisioning of automation tools like **Ansible** and **Terraform**.
* Had good exposure with implementation and maintenance of Apache, HTTP, SMTP, DHCP, LDAP, FTP, Remote Access, and Security management.
* Worked hands on in creating Docker containers and orchestration tools using Kubernetes services with AWS EKS and Nutanix Karbon and created Docker images for domain configurations.
* Proficient in working with the networking components and protocols.
* Authored Ansible Playbooks with SSH as the Wrapper to manage configurations of AWS EC2 instances.
* Worked hands on with the Hadoop stack namely MapReduce, HDFS, Hive, Pig and HBase.
* Implemented analytics on databases like MongoDB, HBase and Hive.
* Strong understanding of Software Development Lifecycle (**SDLC** - various methodologies Waterfall, Agile).
* Good exposure with database operations, writing efficient queries and performing backup operations.
* Worked closely with Project Manager, Development, Testing & Production teams to align Project deliverables, dates & report issues/concerns.
* Good exposure with Windows, Linux operating systems.
* Excellent communication and interpersonal skills.
* Able to manage changing responsibilities and deliver time critical projects on schedule.

## TECHNICAL SKILLS

* Cloud : AWS, Azure, EMC ECS.
* Cloud Automation : CloudFormation, Terraform, Packer.
* Shell Scripting : Python, Shell and Bash scripting, PowerShell.
* Programming : Java, JavaScript, YAML, JSON.
* Monitoring Tools : CloudWatch, Flexera, Grafana.
* Container Platforms : Docker, Kubernetes, ECS, EKS, Karbon, Calm.
* Web Services : REST, Postman.
* Virtualization : Nutanix, VMWare
* Database : MySQL, SQL Server, MongoDB, Postgres.
* Build Tools : Maven, Gradle.
* Repositories : GitLab, TFS.
* Agile Methodology : JIRA.
* CI / CD Tools : Jenkins, Ansible.
* Operating Systems : Windows, Linux.
* Big Data Ecosystem : Apache Hadoop (HDFS, Spark).

**PROFESSIONAL EXPERIENCE**

**Silicon Valley Bank**

**Role: DevOps Engineer** May 2021 - Present

Project is related to cloud platform AWS and creating a platform where all the data sources that the organization uses to create a governed data lake house built with data-as-a-product mindset. The project leverages the latest AWS services and integrating with partner solutions like Collibra, BigID etc.

**Responsibilities**:

* Maintaining a fully automated CI/CD pipelines for code deployment using Terraform and Gitlab.
* Provisioned and managed multiple services on cloud infrastructure solution AWS via code using Terraform.
* Worked on numerous AWS services like EC2, S3, Lambda, Glue, Lake formation, SQS, SNS, KMS, Secrets Manager, Sagemaker, Route53, VPC endpoints, Security groups, State machines, Auto scaling groups, Load balancers, Launch templates, Redshift clusters, CloudWatch event bridges and log groups, Athena, Dynamo DB, RDS, Systems manager and SSM Parameter store.
* Worked on a multi-repo structure on Gitlab and multi-account structure on AWS with multiple repos connecting to different AWS accounts.
* Created multiple IAM roles and policies following the least privilege pattern following the organization’s security policies. Also created multiple cross-account roles for accessing various resources between accounts.
* Worked on deploying multiple tools on AWS including IDQ, Redwood, Collibra Job server, etc. from the architecture phase to deployment phase and handed the tools to the respective teams.
* Exported the logs from all these tools to On-premises Splunk servers to enable monitoring and audit purposes.
* Created multiple FCRs for opening firewalls for connecting to ports between AWS accounts.
* Implemented lifecycle configuration and versioning for the objects in S3 buckets.
* Created multiple modules in terraform following the organization’s security guidelines and used those modules throughout the project thereby implementing code reusability.
* Developed Shell scripts for creating and starting Sagemaker notebooks and for installing tools like IDQ, Redwood etc. on the EC2 instances.
* Worked on developing custom AMIs with the DevSecOps team and added CI/CD functionality for patching the AMIs on the EC2 instances.
* Created automated backups of the EC2 instances and implemented auto-removal of the old EC2 instance snapshots.
* Implemented Lambda functions running both outside of the VPC as well as inside of the VPC for connection to private resources which are running inside the VPC.
* Enabled connection for resources running inside the VPC via VPC endpoints. Created endpoints for SQS, S3, SNS, logs, Athena, DynamoDB, KMS, SSM messages and EC2 messages along with sagemaker related endpoints like API, Runtime, and monitoring.
* Worked on setting up multiple glue jobs along with glue crawlers. Also worked on setting up glue catalog with the data collected from crawlers.
* Created data lakes in AWS using Lake Formation service using S3 buckets as the source for the data lakes. Built a data catalog with different datasets and IAM roles for accessing specific sets of the data catalog. Implemented queries on this data catalog using Athena service.
* Integrated Gitlab with services like Checkmarx and Snyk for reviewing application code related to the Lambdas and Glue jobs created in the repository.
* Implemented Gitlab CI file for continuous integration and deployment of code changes to AWS.
* Implemented Terraform hooks for pulling the changes in Gitlab and triggering the pipeline to plan and apply the changes into AWS. Used HashiCorp Sentinel to add rules related to the resources being created in AWS to follow the organization’s security policy.

**Environment**: Gitlab, Terraform, AWS services. – Compute services (EC2, Lambda, Glue, State machines), Storage services (S3, EBS), Database services (RDS, Dynamo DB), Management services (CloudWatch, Auto Scaling, Systems manager), Messaging services (SQS, SNS, Event bridge), Security services (IAM, KMS, Secrets Manager), Analytics (Athena, Redshift, Lake Formation) and ML services (Sagemaker), Python, Shell scripting.

**Florida Blue** April 2019 – April 2021

**Role: Cloud Engineer**

Project is related to the cloud platform AWS, and the internal cloud platform ECS S3 along with Nutanix virtualization platform. Designed internal applications for automation of infrastructure, health checks for the servers.

**Responsibilities:**

* Responsible for development, programming, and coding of complex and business critical information.
* Working on various object store implementations like Amazon S3, EMC Cloud Storage and Cloud services like Azure and Nutanix Prism.
* Responsible for documentation of system and researching about various storage technologies and recommending state of the art storage products to the enterprise.
* Also involved in designing the best practices on Object Store usage patterns.
* Designed and building reliable, scalable, and available on-premises Object store implementation.
* Created Jenkins scripts for automation of buckets and user creations.
* Developed Spring Boot application for capturing the logs from the EMC ECS cloud service and added them to Elasticsearch.
* Created custom dashboards using Kibana for the log information.
* Created scripts for capturing the logs and dump them into Splunk services.
* Authored CloudFormation templates for VPCs, SAML Roles and Administrative roles in AWS Production accounts.
* Troubleshooting issues related to Nutanix hardware and software platform. Created clusters to operate in Nutanix and added the required security guidelines.
* Performed full cycle STS version upgrades for all the different features in Nutanix platform.
* Creating VMs with Nutanix Prism and Prism Element and also using Nutanix APIs with Terraform to automate the whole process.
* Developing automation scripts for specific Health Checks on Nutanix Clusters and generate different reports related to the VMs and Clusters in Nutanix Cloud.
* Develop an internal Web application for monitoring the health status of the clusters in Nutanix using JavaScript and NodeJS.
* Creating Lambda functions to have automatic shutdown of EC2 instances, auto tagging of AWS resources and auto retirement of service accounts in AWS.
* Creating customized Packer scripts for POC environments.
* Responsible for including IT controls to protect the confidentiality, integrity, as well as availability of the application and data processed or output by the application.
* Write detailed technical specifications for entire systems.
* Implemented a POC with Amazon MSK for streaming data – storing and processing real-time streaming data which includes application log files.
* Implemented custom rules for managing the resources in AWS using AWS Config service.
* Utilize the difference features provided by Object store as a service using EMC and improving the data transfer and availability using REST API Interface.
* Worked on setting the AWS control tower for maintaining a secure multi-account AWS environment.
* Created Terraform scripts for Azure for creating role assignments, adding to subscriptions and resource groups.

**Environment**: EMC ECS, Java, AWS Core services, Azure services, Python, Amazon KMS, Nutanix Private Cloud, React JS, Node JS, Elasticsearch, Kibana, Splunk, Jenkins, Kubernetes, Docker, Amazon MSK.

**E-Cognosys** – Minneapolis, MN August 2018 – March 2019

**Role: Jr. DevOps Engineer**

MDM – Metadata Management Project is a MEAN Stack web-app designed on a Hadoop Cluster. It uses Dublin Standards for making the searching experience better and more reliable.

**Responsibilities:**

* Designed a web – application using MEAN Stack – MongoDB, Node JS, Express and Angular 4.
* Implemented a Continuous Delivery pipeline with Docker swarm, Jenkins, and GitHub. Whenever a new GitHub branch gets started, Jenkins automatically builds a new Docker swarm container from it.
* Configured Jenkins for doing the build in all the non-production and production environments.
* Developing build using MAVEN as build tool and using Jenkins to kick off the builds to move from one environment to other environments.
* Used to build automation Jenkins server, Install and configuration of Jenkins, configure plugins, job setup, and build pipeline and delivery pipeline views.
* Working on transforming data into the Dublin Standards format using Pig Loaders.
* Used Big Data Analytic tools like Hive and HBase for a better searching operation.
* Developed programs using Python & MongoDB, when new data is added to our repository and there by sending Kafka messages to different consumers.
* Worked on Kafka using Python APIs.

**Environment**: Hadoop Ecosystem (HDFS, MapReduce, YARN, Hive, HBase, Pig), Python, Kafka, Angular 4, Node JS, MongoDB, Docker, Jenkins.

**PeopleNet** – Hopkins, MN April 2017 – July 2018

**Role: DevOps Engineer**

**Responsibilities**:

* Experience in creating Docker containers leveraging existing Linux containers and AMIs in addition to creating Docker containers from scratch.
* Worked on creation of custom Docker container images, pushing the images and Docker consoles for managing the application lifecycles.
* Utilized key features in Terraform such as Infrastructure as Code (IAC), Change automation, Execution plans. Wrote Terraform templates to deploy infrastructure on cloud with EC2, ELB.
* Configured AWS IAM and security groups in Public and Private subnets in VPC.
* Worked on designing and deploying applications using AWS services like EC2, Route53, S3, RDS, DynamoDB, SNS, SQS and ELK. Focused on high-availability, fault tolerance and auto scaling in AWS Cloud Formation.
* Involved in building configuration management for Microservices using Docker, Kubernetes and Ansible. Used Kubernetes to setup load balancing and service selection.
* Worked on managing Private cloud environment using Ansible and Enhanced the automation to assist configuration management using Ansible based YAML scripts.
* Worked on Docker container snapshots, attaching to a running container, removing images, managing Directory structures, and managing containers.
* Managed local deployments in Kubernetes, created local cluster and deploying application containers. created private cloud using Kubernetes that supports Dev, Test and Prod environments.
* Configured Jenkins for doing the build in all the non-production and production environments.
* Used Git with Jenkins to integrate to automate the code checkout process.
* Configured Jenkins for doing the build in all non-production environments and most of the production environments.

**Environment**: AWS, Docker, Kubernetes, Jenkins, YAML, Ansible, Terraform.

**Health Assure** - Minneapolis, MN August 2016 – March 2017

**Role:** **Jr. Hadoop Developer**

**Responsibilities:**

* Working on transforming, staging, and storing data using Spark which includes writing Spark applications in Scala.
* Working on analyzing Hadoop cluster and big data analytic tools Pig, Hive and HBase.
* Developing Spark Core and Spark SQL scripts using Scala for faster data processing and access HIVE tables.
* Exploring the performance and optimization of the existing algorithms in Hadoop
* Designing and developing Hive and Spark programs to process massive amount of provider information.
* Developing programs for Spark streaming which consumes topics from distributed messaging source Kafka and periodically push data to different sources.
* Working on custom Pig Loaders and Storage classes to work with variety of data formats such as JSON and XML file formats.
* Implemented Partitioning, Dynamic Partitions and Buckets in HIVE for efficient data access.
* Developing automation jobs in Linux bash shell.
* Built an EC2 instance (RHEL).
* Migrated data to cloud.

**Environment:** Java, Scala, Hadoop Ecosystem (Hive, HDFS, Spark, HBase, Pig, YARN, Zookeeper, Kafka), Amazon Web Services (AWS), MySQL, Hortonworks, JIRA, Linux Shell Scripting.

**ISS & CSE (Rochester Institute of Technology, Rochester)** August 2015 – January 2016

**Role: Student Developer/Teaching Assistant**

**Responsibilities:**

* Providing support for the newly developed website by making necessary changes as per design using Angular, Bootstrap and Typescript.
* Developing a database repository.
* Help Prospective International Students with transition to RIT and answering their queries (through e-mail and phone calls) before their arrival to United States.
* Organized New International Student Orientation for Spring-16, Summer-16, and Fall-16.
* Processing applications to International Student Advisors.

**Environment:** Angular2, Bootstrap, Node JS, MongoDB, TypeScript.

**NetEnrich Inc., Hyderabad, Andhra Pradesh, IN** June 2013 – May 2014

**Role: Linux Administrator**

**Responsibilities:**

* Responsible for creating builds, staging, and deploying software content across multiple environments Dev, Test, Stage, QA, Demo.
* Worked on installing Oracle 9i on Linux for the development team.
* Provided administration support for Red Hat Linux 3.x and 4.x servers and worked on resolving trouble tickets.
* Developed multiple Bash-shell scripts to automate routine activities.
* Worked on resolving and submitting CRQ tickets based on user requirements.
* Worked on Linux Kernel, memory upgrades and swaps area and on Red Hat Linux Kickstart installation.
* Collaborate with development team to resolve build and deployment related conflicts.
* Responsible for real time backup of web servers.
* Used Remote system administration tools like SSH and Telnet.

**Environment**: Red Hat Linux 3.x/4.x, Bash shell, Oracle, Terminal services.

## EDUCATION / CERTIFICATION

* **Master of Science – Rochester Institute of Technology, USA**
* **B. Tech – Jawaharlal Nehru Technological University, India.**