**KALAIVANI RAVIKUMAR**

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**Summary**

Experienced AWS DevOps Engineer over 9+ years of work experience in AWS cloud infrastructure, Linux administration, design and maintain Client/Server application configurations, continuous Integration, continuous Delivery and software deployment. Extensive hands-on technical experience in Software Development Life Cycle, database management of complex projects and orchestrating workloads in a cloud environment.

**Technical skills**

* Cloud Platform : AWS
* Cloud Services : EC2, IAM, EBS, EFS, ELB, ASG, RDS, S3, SQS, SNS, VPC, Route 53, CloudWatch, WAF**,** Cloud Trail, Trusted Advisor, Cost Management, Session Manager, Lambda, ELK, Athena, ElastiCache, API Gateway, Firewall Manager, AWS Certificate manager, Glue
* CI/CD Tools : Jenkins, GitLab
* Containerization : Docker, ECS
* Scripting : Bash, PowerShell, YAML, Python
* Orchestration Tool : Kubernetes, EKS
* Ticketing Tools : JIRA, Service Now
* Operating System : Amazon Linux 2, RHEL 8, RHEL 9, Windows, Unix
* Versioning Tool : Git, GitHub
* Configuration Management Tool : Ansible
* Monitoring tool : Datadog, Prometheus
* IaC Tools : Terraform, CloudFormation

**Professional Experience:**

**Client: Pyramid Technologies May 2024 - Present**

**Role: Sr. DevOps Engineer**

**Responsibilities**

* Experienced in creation of docker images using yaml files and automating the build process in each stage that runs as docker containers using GitLab.
* Managing Ansible playbooks with ansible modules for the server configuration, group variables, handlers, inventory files, automate repetitive tasks using roles with the help of ansible galaxy.
* Involved in managing CI/CD pipelines using DevOps toolset which includes continuous integration of python code, continuous delivery of new features using GitLab and deployment through Terraform.
* Hands-on experience in handling ECS tasks are managed by AWS Fargate by eliminating the need to provision, manage EC2 instances and scaling an EKS cluster by adjusting the number of worker nodes in the associated Auto Scaling Group.
* Experienced in branching, tagging, maintaining the version across the environment, setting up the repository and building new features with automation using GitLab.
* Deploy an application on EKS cluster in the cloud environment by using Terraform code template in GitHub repository and scheduled the automation process using Jenkins.
* Setup AWS infrastructure resources like EC2, EBS, Autoscaling, VPC, Amazon certificate manager monitoring through Datadog. Also managed backup policies and disaster recovery of application data using the N2WS tool.
* Integrated Ansible YAML playbooks with the Terraform templates to deploy 3-tier architecture resources on AWS cloud with reduced manual intervention.
* Implement Amazon ECS cluster, ECS task, service and ECS scheduler automatically starts new containers using the updated image and stops containers running the previous version.

**Ensono Technologies LLP Feb 2023 - Feb 2024**

**Client : Verisk Analytics, USA**

**Role : Sr DevOps Engineer**

**Responsibilities**

* Implemented AWS cost cutting by writing the Ansible YAML playbook for auto start/stop of AWS resources at a particular time of the day by triggering it from Jenkins.
* Scheduled job and set up the flag to run automation scripts on Jenkins as a part of the Continuous Integration process every time there is a bug fix, new feature deployment and code changes in the GitHub repository.
* Maintained detailed documentation of Datadog installation, configuration, creation of monitoring policies, configuring cloudwatch alarms, used CloudTrail, VPC FlowLogs inorder to identify and work on incidents.
* Worked on Kubernetes cluster setup, namespace, logging, networking, KubeProxy, services, replicaSets, rolling updates on Pods and handled rolling back in the pod deployments.
* Created a batch utility tool using AWS S3 batch to analyze the client records for efficient data, IAM policies, Security Hub, Network Firewall, private Link, AWS database services including RDS, DynamoDB and Aurora, ECS, EKS and ELK.
* Involved in design, implementation of continuous integration, continuous delivery and modifying the efficiency of the environment using Python and Bash code.
* Addressed client adhoc requirements, documented problem incident issues, handled production priority incidents, performed major infrastructure changes, knowledge article, RCA and infrastructure details for future reference using Service Now.
* Configure the alerts in prometheus to monitor the Kubernetes pod metrics in regular intervals of time and send email notifications to take necessary actions.

**TATA Consultancy Services Apr 2021 - Jan 2023**

**Client : Canadian National Railway, Canada**

**Role : Cloud DevOps Specialist**

**Responsibilities**

* Configure Git Version control system to track project history in distributed server and merge code from development branch to master branch and make sure every line of code follows the coding standards.
* Worked on Kubernetes orchestration platform that automates the deployment, scaling, ConfigMaps are to inject configuration data into application pods, making it easier to manage and update configuration settings.
* Design, modify and implementation of application performance monitoring solutions using Datadog to identify and address potential bottlenecks and inefficiencies.
* Configured Docker Registries to store container images and integrated with Jenkins pipelines to build docker images environment based new containers for applications.
* Involved in development of a huge scale application project using Docker microservices, enabled communication between pods and services is called [Kube-proxy](https://www.geeksforgeeks.org/kubernetes-architecture) in the Kubernetes cluster.
* Hands-on experience in configuration of network architecture on AWS cloud with VPC, subnets, Internet gateway, NAT, security groups, Network ACL’s, Route Table, Security Hub, Network Firewall, Route 53, Guard Duty and WAF.
* Design, Implement and manage the hosting of static application websites written in python and maintenance of the website on AWS is completely automated using Terraform and maintained CI/CD pipelines using Jenkins.
* Implemented the Integration of Jira software with Jenkins for real time bug tracking and to update the issues of pipelined projects.
* Deployed a high availability application on AWS with a load balancer, Integration of Artifactory to automate CI/CD Jenkins pipeline and deployment of resources using infrastructure as a code (IAC) principles with Terraform and CloudFormation.

**IBM Nov 2018 - Apr 2021**

**Client : Fiat Chrysler Automobiles, USA**

**Role : Cloud Engineer**

**Responsibilities**

* Setup the orchestration of Docker Containers on AWS as well as on-premise, saving manual effort for application Container Management and scaling.
* Deployed RDS instances such as SQL, PostgreSQL, Aurora, DynamoDB as well as NoSQL across two or more isolated availability zones based on client requirement and eliminated single point of failure in production architecture designs.
* Handled AWS Certificate Manager service to easily provision, manage, deploy public and private Secure Sockets Layer/Transport Layer Security (SSL/TLS) certificates for usage with AWS services
* Worked on CloudFormation Stack components include the template, the stack name, stack policies, change stacks, error handling, stack set and the set of resources created.
* Experienced in AWS hosted applications with focus on AWS services such as EC2, EFS, EBS, S3, Systems Manager, CloudWatch, Trusted Advisor, Cloud Trail, SQS, SNS, ELB, Autoscaling, Guard Duty and IAM.
* Created alerts and monitoring dashboards using Prometheus to maintain the high availability of application microservices deployed in the Kubernetes Cluster.
* Used Jira dashboard to view the project information, organize work, prioritize the changes, visualize and manage the progress of issues in a Site reliability engineering project.

**IBM Oct 2016 - Nov 2018**

**Client: Thames Water, UK**

**Role: System Engineer**

**Responsibilities**

* Setup the yum repository, upgraded the repository by appropriate patching in the server and installing software packages using yum and rpm.
* Consistently achieved 99% uptime for production servers deployed in both on premise and AWS by implementing elastic load balancer and autoscaling for high availability and fault tolerance.
* Performed regular security audits, capacity planning, maintenance outages, patching, upgrade linux systems with new releases and resource optimization efforts.
* Created, Implemented and managed the development of application Bash scripts to automate everyday operation and integrated Github action workflows with Service Now.
* Managed and reviewed error logs, conducting system backups, monitoring system performance and maintenance of Linux-based systems on AWS.
* Performed the export of EC2 instance to a VM format image format using custom policies and the output placed in S3 bucket to replicate the software.

**Pyramid Softsol June 2015 - Oct 2016**

**Role: Cloud Engineer Intern**

**Responsibilities**

* Responsible for creating database performance reports, database performance tuning and identifying areas where improvement is needed.
* Administered database hosted in AWS cloud computing environment, provisioning, managing the database instances, setting up replication and high availability of database.
* Handled day to day database activities such as monitoring space, memory requirements, check alert logs, archive logs and transferring logs from the production server to the standby server.
* Created roles and policies using Identity and Access management (IAM) in order to provide authentication and authorization to users.
* Analyze application performance that predicts the situation like queries to the database are taking a long time to process and implementing elastic cache to store common queries to improve the system performance.

**Education and Certifications:**

* B. TECH Information Technology (2012-2016) from Panimalar Institute of Technology affiliated to Anna University with 83%.
* AWS Certified Cloud Practitioner
* EMC Academic Associate Cloud Infrastructure Services
* ITIL V3 Foundation Certificate from TCS
* Linux Foundation Cert Prep: Essential Commands (Ubuntu)