**Karthik P **

**AWS/DevOps Engineer**

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**Professional Summary**

* 7+ Years of Experience with Infrastructure Administration in LINUX (RHEL/CENTOS 5/6/7, Ubuntu), Windows Server 2008 R2/2012 R2, Amazon Web Services, Google Cloud Platform and Tools that are used for Automation of Configuration Management in a CI/CD (Continuous Integration & Deployment/Delivery) Pipeline under DevOps Culture.
* Develop automation and processes to enable teams to deploy, manage, configure, scale, monitor applications in Data Centers and in AWS Cloud.
* Hands-on experience with AWS provisioning EC2 Infrastructure, VPC setup, Auto Scaling for availability of EC2 Instances and availability of applications and deploying applications in Elastic load balancing.
* Hands on creating S3 buckets and managed policies for S3 buckets and utilized S3 Buckets and Glacier for storage, backup and archived in AWS and experience in setting up and maintenance of Auto-Scaling AWS stacks.
* Utilized AWS Beanstalk for conveying and scaling web applications and administrations created with Java, PHP, Node.js, Python, Ruby, Ansible and Chef on commonplace servers like Apache.
* Experience on Google cloud services like Glacier, Load Balancers, RDS, SNS, SWF, and IAM and hands-on experience on Google cloud Services provision.
* Developed and managed cloud VMs with AWS EC2 command line clients and management console implemented DNS service through Route 53 on ELBs to achieve secured connection via https.
* Designed highly available, cost effective and fault tolerant systems using multiple EC2 instances, Auto Scaling, Elastic Load Balance, AMIs and Glacier for QA and UAT environments.
* Experienced in managing applications by implementing AWS services which includes EC2, S3, EBS, VPC, ELB (Elastic Load Balancing), AMI, SNS, RDS, IAM (Identity & Access Management), Route 53, Lambda, Auto scaling, CloudFront, Cloud Watch, Cloud Trail, Cloud Formation, OPS Work, Security Groups.
* Implemented Hadoop architecture and various components such as HDFS (Name Node, Data Node) and MapReduce programming (Job Tracker, Task Tracker).
* Installed and configured the Hadoop - 0.20, HBase, HDFS, Hive, Flume, Hue, Impala, MapReduce, Oozie, Sqoop and Zookeeper.
* Proficiency in OpenStack services such as Horizon, Keystone, Nova, Neutron, Glance, Cinder, Ceilometer and Swift.
* Expertise in Virtualization technologies like VMware ESX/ESXI, CITRIX XENSERVER/OPENSTACK and involved in the maintenance of virtual servers.
* Implemented Terraform modules for deployment of various applications across multiple cloud providers and managing infrastructure.
* Worked with Docker Trusted Registry as a repository for our Docker images and worked with Docker container networks.
* Expertise in using Docker to run and deploy the applications in multiple containers like Docker Swarm and Docker Wave.
* Used Containerization tools like OpenShift, Docker and Kubernetes for automated deployments, scaling and management of containerized applications across clusters of hosts.
* Implemented Chef Recipes for Deployment on build on internal Data Centre Servers. Also, re-used and modified the same Chef Recipes to create a Deployment directly into Amazon EC2 instances.
* Hands on experience on automating various infrastructure activities like Continuous Deployment, Application Server setup, Stack monitoring using Ansible playbooks and worked on Integrating Ansible with Rundeck and Jenkins.
* Creative in automating, configuring, and deploying instances on AWS cloud environments and Datacenters.
* Created complex Identity and access Management (IAM) policies for delegated administration within AWS.
* Used AWS Elastic Beanstalk for deploying and scaling web applications and services developed with Java, PHP, Node.js, Python, Ruby, and Docker on familiar servers such as Apache, Nginx and IIS.

**Education**

* Bachelor of Technology in **Computer Science and Engineering**, India.
* Masters in information system security, University of Cumberland’s, Louisville, KY.

**Certifications**

* Amazon Web Services **(AWS) Certified Solutions Architect** – Associate level

**Technical Skills**

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| **Cloud Platform** | AWS, Google Cloud Platform, Microsoft Azure and Open stack |
| **Configuration Management** | Chef, Puppet, Maven, Ansible Kubernetes and Docker |
| **CI Tools** | Hudson, Jenkins |
| **Monitoring Tools** | Splunk, Nagios |
| **Database** | MySQL, SQL Server, Oracle |
| **Build Tools** | Ant, Maven, Jenkins |
| **Version Control Tools** | Subversion (SVN), GIT, GIT Hub |
| **Bug Tracking Tools** | JIRA, ServiceNow, Bugzilla |
| **Web Servers** | JBOSS, Apache, Tomcat, WebLogic, WebSphere |
| **Scripts** | Ruby, Perl, Python, Bash Shell, PowerShell |
| **Languages** | C, C++, Java |
| **SDLC** | Agile, Scrum |
| **Operating System** | Redhat, Ubuntu, Linux, Windows, CentOS |
| **Web Technologies** | Google Web Toolkit, HTML, JavaScript, CSS, XML |

**Professional Experience:**

**Client: Apple**, **Sunnyvale, CA** **April 2022 - Till Date**

**Role: DevOps/Cloud Engineer**.

**Responsibilities:**

● Taking care of the requirements gathering and analysis, and high level design and detailed design.

● Development/coding, testing and bug fixing.

● Implementation /deployment, and maintenance of existing systems.

● Used shell scripts to automate the deployment process.

● Experience in installation of Splunk and setting up the attributes.

● Part of the developing automation scripting in java using salt to deploy and manage java applications across Linux servers.

● Worked on Splunk to monitor the infrastructure implementation.

● Working with Devops practices using AWS, and Docker with Kubernetes.

● Part of the developed and maintained and distributed release notes for each scheduled release.

● Coordinate with release management regarding appropriate systems release among other development platforms.

● Actively working on docker and deploying and maintaining in Dev and UAT environments.

● Using spin cloud pipelines to drive all builds out to the docker registry and then deployed to Kubernetes, created pods and

managed using Kubernetes.

● Working on a virtual data center in the Amazon Web Services cloud to support Enterprise Data Warehouse hosting including

Public and Private Subnets, Security Groups, Route Tables, Internet Gateways, Network ACL’s and Security Groups.

● Created certificates using certificate manager.

● Experienced Linux patch management the process of using patches to update the operating system.

● Configuring the security groups, setting up Elastic Ips and auto scaling the configuration.

Responsible for managing and supporting Continuous integration (CI) using Jenkins.

**Environment:** GIT, JENKINS, SPINCLOUD, AWS, Docker, Cloud Watch, RDS, S3, Route53, SNS, SQS, Cloud Trail, Elastic Cache, Apache, HTTP Server, Splunk, Apache Tomcat, MySQL, Security Groups, Route Tables, Internet Gateways, Network ACL’s, and Security Groups, RedHat Linux.

**Client: GE Healthcare, San Ramon. CA** **Nov 2019 – April 2022**

**Role: Sr.DevOps/Cloud Engineer**.

**Responsibilities:**

* Installing and Configuring Continuous Integration and Continuous Delivery application Jenkins. Proficient in defining Build Pipelines in addition to creating and maintaining multiple jobs. Extensively worked on Jenkins for Continuous Integration and End -to-End automation for all builds and deployments, creating and configuring Jenkins jobs and delivery pipelines.
* Created Terraform/CFT scripts for automated infrastructure provisioning in AWS cloud.
* Created the automated deployment jobs in Jenkins by using GIT, MS Build, AWS, and Docker.
* Used Code Deploy service to deploy the artifacts into windows servers running on AWS auto scaling group.
* Created Docker images by using Docker files out of source code and pushed the Docker images into ECR repositories on AWS Cloud.
* Configured a virtual data center in the Amazon Web Services cloud to support Enterprise Data Warehouse hosting including Public and Private Subnets, Security Groups, Route Tables, Internet Gateways, NAT Gateways, Network ACL’s and Security Groups.
* Responsible for monitoring the servers with AWS cloud watch service.
* Created the alarms and SNS notifications for EC2 Instances to monitor the CPU Utilization, Disk Usage using AWS Cloud Watch.
* Installed and configured the Hadoop, HBase, HDFS, Hive, Flume, Hue, Sentry, Impala, MapReduce, Oozie, Sqoop and Zookeeper.
* Setting Fair Scheduler Queues in Hadoop and Cloudera Manager.
* Setting ACL for running queues in Hadoop and CM.
* Experience in Route 53 domain configuration.
* Design develops and test HTML5, CSS3, Bootstrap, JavaScript, jQuery and React Native that meets accessibility and web browser standards for mobile standards.
* Managed Users, Groups, Roles and Permissions in AWS Cloud by using Identity Access Management (IAM).
* Created Terraform Scripts to create custom-sized VPC, subnets, EC2 instances, ELB, security groups. Worked on tagging standards for proper identification and ownership of EC2 instances and other AWS services like Cloud Front, Cloud Watch, RDS, S3, Route53, SNS, SQS, Cloud Trail, Elastic Beanstalk, Elasticache and Code Deploy.
* Written python scripts in Jenkins to deploy the artifacts into AWS environments.
* Used AWS Lambda to manage the servers and run the code in the AWS.
* Involved in installation, configuration and troubleshooting of various web and application server issues including Apache HTTP Server, Nginx, Apache Tomcat.
* Used MSBuild tool to build .Net projects and pushed the artifacts into windows and Linux servers.
* Extensive knowledge on docker swarm environments and provided continuous support for multiple production environments.
* Installing and Configuring the ELK stack, Prometheus and Grafana for monitoring the AWS environments.

**Environment:** GIT, MS Build, AWS, Docker, CloudFront, Cloud Watch, RDS, S3, Route53, SNS, SQS, Cloud Trail, Elastic Beanstalk, Elastic Cache, Apache HTTP Server, Nginx, Apache Tomcat, MySQL, Security Groups, Route Tables, Internet Gateways, NAT Gateways, Network ACLs, and Security Groups.

**Client: Aon, Chicago, IL Dec 2017 – Nov 2019**

**Role: DevOps Cloud Engineer.**

**Responsibilities:**

* Hands-on experience in VM deployments using portal and PowerShell.
* Responsible for creating Network Security Groups and adding inbound rules for various ports like RDP(3389), PS remoting (5986), Custom ports (8081,9200) to allow access only from private network address prefixes to provide utmost security.
* Design develops build and packaging tools for continuous integration build and reporting. Automate the build and release cycles.
* Prepares and installs solutions. Determines and designs system specifications, standards, and programs. Performs system analyses and recommends changes to policies and procedures.
* Determines operational feasibility by evaluating analyses, problem definitions, requirements, solution developments, and proposed solutions. Documents and demonstrates solutions by developing documentation, flowcharts, layouts, diagrams, charts, code comments, and clear codes.
* Deploy software to Development, Quality Assurance, and Production environments using Octopus Deploy.
* Deployed builds from TFS to all environments with Octopus Deploy.
* Creates a project for various applications or services that need to be deployed using Octopus in different environments. Documented daily meetings, build reports, release notes and many other day-to-day documentation and status reports.
* Create PowerShell script to manage multiple subscriptions in Classic portal using publish settings file.
* Create users in Azure AD from Portal as well as form PowerShell.
* Migration of on-premises vms (Hyper-V & VMware) to Azure.
* Migration of Azure vms from Classic portal to ARM portal.
* Migration of IAAS services like virtual network, network interface etc.
* Adding additional disks to Azure VM upon receiving request.
* Scale up and scale down various services like VMs, SQL Servers (DTUs).
* Creation of Azure NIC, Azure Virtual networks, Azure VM’s and provide access to users.
* Managing entire Azure infrastructure services.
* Working with the application Owner for the Data assessment and Getting Approvals.
* Creating and working on the Change Request approval from the Stakeholders.
* Performing the cutover activities and post migrations step.
* Performing Failover, the application to azure.
* Assist customers with Azure and GitHub templates.
* ASM to ARM migrations and on premise to Cloud Migrations.
* Performing Sys-prep activity on the azure resource.
* Capturing the failover VM & Deploying the New VM with an azure image.
* Adding Virtual machines to the active domain.
* Creating run books and Assessment sheets.
* Installing the azure VM Agents for integrating the Azure Backup services.
* Working on Respective Tags to the New Resources Created during the Cutover Tasks.
* Enabling and configuring the Backup policy on Virtual Machines.
* Deploy and manage the Azure Services like Virtual Machines, Web Apps, Storage, Azure Active Directory, Virtual Networks, and Azure CDN & Microsoft Operations Management Suite (OMS).
* Providing solutions to the Customers based on the requirements/service requests.
* Installing, upgrading, configuring, troubleshooting Windows Servers.
* Configuring storage account access, diagnostics & monitoring.
* Installing and configuring IIS and FTP services, creation of FTP sites.
* Performing health checks on servers for space and memory management, antivirus updates.

**Environment:** Virtual Machines, Web Apps, Storage, Azure Active Directory, Virtual Networks, Azure CDN & Microsoft Operations Management Suite (OMS), IIS and FTP services, MS-SQL Server 2005, 2008, Microsoft Azure, My SQL, JSON etc.

**Client: Chevron, Houston, TX. April 2016 – October 2017**

**Role: DevOps Engineer.**

**Responsibilities:**

* Wrote AWS Lambda functions in python for AWS's Lambda which invokes python scripts to perform various transformations and analytics on large data sets in EMR clusters.
* Responsible for creating Aws Identity and Access Management (IAM) groups and Users for improved login authentication and providing security Group in both Public and Private Subnets in VPC.
* Designed, configured, and deployed Amazon Web Services (AWS) for a multitude of applications using the AWS stack (EC2, Route53, S3, RDS, Cloud Formation, Cloud Watch, SQS, IAM), focusing on high-availability, fault tolerance, and auto-scaling.
* Built and configured a virtual data center in the Amazon Web Services cloud to support Enterprise Data Warehouse hosting including Virtual Private Cloud (VPC), internet gateways, Public and Private Subnets, Route Tables, Elastic Load Balancer (ELB).
* Building/Maintaining Docker container clusters managed by Kubernetes Linux, Bash, GIT, Docker, on GCP (Google Cloud Platform) Utilized Kubernetes and Docker for the runtime environment of the CI/CD system to build, test deploy.
* Designed a system using Kafka to auto - scale the backend servers based on the events throughput.
* Supported small to medium sized projects using GIT. Worked on integrating GIT into the continuous Integration (CI) environment along with Anthill-Pro, Jenkins.
* Deployed and monitored scalable infrastructure on Google cloud & configuration management using Docker.
* Implemented rapid-provisioning and life-cycle management for Linux using Amazon EC2, Chef, and custom Ruby/Bash, python scripts.
* Provisioned the highly available EC2 Instances using Terraform and cloud formation and wrote new plugins to support new functionality in Terraform.
* Created and managed Azure AD tenants and configured applications with Azure AD and Integrated on-premises Windows AD with Azure AD.
* Integrated Kafka with Flume in a sandbox Environment using Kafka source and Kafka sink.
* Migrating an on-premises application to cloud.
* Accomplished and maintained the monitoring and alerting of production and corporate servers/storage using Cloud Watch.
* Used Docker to containerized Micro services in cloud and managed clusters using Docker Swarm and Kubernetes. Developed a private cloud system solution on CoreOS using Kubernetes.
* Used aws to deploy ELK (for automating CD and configured Slave Nodes and deployment failure reporting.
* Structured and maintained assigned virtual servers. Monitored server traffic through Nagios. Administered web servers on Apache and Nginx.
* Experienced in installing, configuring, tuning, deploying, troubleshooting WebSphere applications.
* Creating the file systems using red hat volume manager and performing the health check on a regular basis for all Linux servers.
* Used JIRA for ticket tracking, change management and Agile/SCRUM tool.
* Designed data pipelines for loading network data in Elastic search for consumption with Kibana dashboard and graphs.
* Hands-on experience in Azure Cloud Services (PaaS & IaaS), Storage, Web Apps, Active Directory, Application Insights, Logic Apps, Data Factory, Service Bus, Traffic Manager, Azure Monitoring, OMS, Key Vault, Visual Studio Online (VSO), Cognitive Services (LUIS) and SQL Azure
* Configured Jenkins as a common build engine to build and deploy applications to DEV, QA, and UAT and PROD environments also Integrated Jenkins with deploy and Created deploy Components, deploy process, and installed deploy agents on both windows and Linux machines per application team requirements.
* Extensive experience using MAVEN and ANT as build tools for the building of deployable artifacts (jar, war &amp; ear) from source code.

**Environment:** AWS, Jenkins, RHEL, Python, Chef, Puppet, Ansible, Terraform, Groovy, IaaS, PaaS, Subversion, Bash, ASP .NET, Hudson, Hadoop, Kubernetes, Cucumber, RedHat Linux, SOA, SOAP, REST, Maven, Ansible, Cloud Foundry JIRA, SQL, VMware.