**Akhila Muppalla**

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**PROFESSIONAL SUMMARY**

* Highly Motivated **Cloud/DevOps Certified Engineer** with 8+ years of IT experience in managing server infrastructures and administration of mission critical, high availability environments. Proficient in building and deploying applications by adopting DevOps practices such as **Continuous development, Continuous Integration (CI)** and **Continuous Deployment (CD)**in runtime with various tools like Git, Jenkins, Terraform, Ansible, Chef, Docker, Kubernetes, several scripting languages, and monitoring tools.
* Dynamic and seasoned DevOps Engineer with over 9 years of extensive experience in C# development, adept at implementing robust automation solutions and optimizing software delivery processes.
* Sr Cloud DevOps engineer with experience in **Cloud platforms** (Azure, AWS), **DevOps, Configuration management, Infrastructure automation, Continuous Integration and Delivery** (CI/CD). Implement effective strategies for N - Tier application development in both **Cloud and On-premises** environments. Expertise in dealing with **Unix/Linux and Windows** server administration.
* 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**.
* Experience provisioning infrastructure using **Terraform** modules and **Ansible** playbooks. Troubleshooted build, bugs and infrastructure related problems
* Expertise used **Kubernetes** and **docker** for **container orchestration** and deploying
* monitoring and alerting tools like **Prometheus** and **Grafana**
* Good exposure working in a distributed team and successfully delivering short/large timeframe projects
* Hands on experience on Backup and restoring **Azure services** and in Designing and configuring **Azure Virtual Networks (VNETs), subnets, Azure network settings, DHCP address blocks, DNS settings, security policies and routing, Blob storage, Active directory, Cosmos DB.**
* Experience in migrating on-premises applications to **Azure** and configuring **VNETs** and **subnets** as per the project requirement. Performed **PowerShell scripting** to do **Patching, Imaging**, and **Deployments** in **Azure**.
* Experienced in developing and executing build, test, and deployment strategies for C# applications
* Good Knowledge on **Azure Site Recovery** and **Azure Backup.** Performed Installations and Configurations of Azure Backup agent and virtual machine backup, Enabled **Azure Virtual machine** backup from the **Vault** and configured the **Azure Site Recovery (ASR).**
* Extensively worked on CI/CD pipelines using **Azure DevOps (VSTS, TFS)** in both cloud and on-premises with **GIT, MS Build, Docker, Maven** along with **Jenkins** plugins.
* Experience in deploying and optimizing two tier **.NET web application** to **Azure DevOps** to focus on development by using services such as Repos to commit codes, Test Plans to trigger application and unit test, deployed artifacts to **App Service**, Azure Application Insight collects health performance and usage data of the process.
* Expertise in **Azure DevOps** and worked on **Azure Web Application**, **App Services, Azure storage, Virtual Machines, Fabric Controller, Azure Search, and Notification Hub**.
* Experienced in migrating on-premises **DevOps** platform to **Azure CI/CD** processes by utilizing **ARM templates**, **Azure DevOps, App services** such as **Repos, Test Plans, Pipelines**, Web Apps, and **Application Insights**.
* Experience in Infrastructure Development and Operations involving **AWS Cloud Services, EC2, EBS, VPC, RDS, SES, ELB, Auto scaling, CloudFront, Cloud Formation, Elastic Cache, API Gateway, Route 53, Cloud Watch, SNS.**
* Expertise in building **CI/CD** on AWS environment using **AWS Code Commit**, **Code Build**, **Code Deploy** and **Code Pipeline** and experience in using **AWS CloudFormation, API Gateway,** and **AWS Lambda** in automation and securing the infrastructure on **AWS**.
* Experience in changing over existing **AWS** infrastructure to **Serverless** architecture **(AWS Lambda, AWS Kinesis)** through the creation of a **Serverless** Architecture using **AWS Lambda**, **API gateway**, **Route 53, S3 buckets**.
* Written **Terraform** scripts to automate **AWS services** which include **ELB**, CloudFront distribution, RDS, **EC2**, database security groups, **Route 53**, VPC, Subnets, Security Groups, and **S3** Bucket and converted existing AWS infrastructure to **AWS Lambda** deployed via **Terraform** and **AWS CloudFormation**.
* Experience in managing **Kubernetes** services such as **Azure Kubernetes, AWS Elastic container service, and EKS.**
* Proficient in using **Docker Hub, Docker Engine, Docker images, Docker Weave, Docker Compose, Docker Swarm**, and **Docker Registry** and used **containerization** for applications.
* Proficient in creating **Docker images** using **Docker File**, worked on **Docker container** snapshots, removing images, and managing **Docker volumes** also implemented **Docker** automation solution for **CI/CD** model.
* Extensive experience in installing, configuring, and administrating **Jenkins CI** tool on Linux machines and used **Jenkins Pipelines** to drive all Microservices builds out to the **Docker Registry** and in deployment to **Kubernetes**, Created Pods and managed using Kubernetes.
* Involvement in developing **APIs** using **Kubernetes** to manage and specify the copies of the containers to run the actual servers in the cloud environment. **Scheduled**, **deployed** and managed **container** replicas onto a **node cluster** using **Kubernetes** and deployed **Docker** containers through **Kubernetes** to manage the **microservices** using its **Nodes, Pods, Config Maps, Selectors, Services**.
* Expertise in configuring **monitoring** and **alerting tools** according to the requirement like **Prometheus** and **Grafana**, setting up **alerts** and **deployed multiple dashboards** for individual applications in **Kubernetes**.
* Professional in **deploying** and configuring **Elasticsearch, Logstash, Kibana** (**ELK**) and AWS **Kinesis** for **log analytics** and skilled in **monitoring** servers using **Nagios**, **Splunk**, **AWS CloudWatch, Azure Monitor ELK**.
* Have Good Working knowledge in **Python, Bash/Shell, PowerShell, Ruby**, **Perl**, **PowerShell**, **JSON**, **YAML**, **Groovy**. Developed **Shell** and **Python** Scripts used to automate day to day administrative tasks and automation of the **build** and **release process**.
* Professional in RHEL, Strong technical background in **Storage, Disk Management, Logical Volume Management (LVM)** and logical partitioning. Expertise in administration of networking devices such as routers and switches and also handful experience in trouble shooting skills on client servers using networking protocols (DNS, TCP/IP, SMTP & SNMP).

**Technical Skills Summary**:

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| --- | --- |
| **Operating Systems** | Linux (Red Hat 4/5/6/7), Ubuntu 14/16/18, Windows NT 2000/2003, CentOS 6, 7, 8. |
| **Application Servers** | Oracle Web Logic (8/9/10), IBM Web Sphere (5/6/7), JBOSS, C# codebases Apache Tomcat. |
| **Web Servers** | Apache Tomcat, Nginx, WebSphere, WebLogic, JBoss, Samba, SQL Server. |
| **Cloud Environments** | Microsoft Azure, Amazon Web Services (AWS), Open Stack, Oracle |
| **Automation Tools** | Jenkins, Git Lab CI, Azure DevOps,Maven, Nexus. |
| **Version Control Tools** | Git, GitHub, SVN, Bitbucket, Subversion,ECR. |
| **Virtualization Platforms** | VMware, VirtualBox, Citrix, Vagrant. |
| **Networking Protocols** | DNS, DHCP, FTP/TFTP, NFS, SMTP, TCP/IP, NIS, HTTP/HTTPS, WAN, LAN, Palo Alto, Cisco Routers/Switches |
| **Containerization Tools** | Docker, Kubernetes, Docker Swarm, OpenShift |
| **Scripting** | Python, Shell Scripting, Ruby, Groovy, YAML, Perl, C, C++, .NET, Java, Go. |
| **Database** | Dynamo DB, MySQL, RDBMS, NoSQL, Cassandra, PostgreSQL, Mongo DB, Oracle DB. |
| **Repository Management** | JFrog, Nexus, Artifactory |
| **Performance Monitoring& Bug Tracking Tools** | Azure Monitor, CloudWatch, Splunk, Grafana, ELK, Nagios, Jira.VMware ESXI, Vagrant, Dynatrace |
| **Storage** | Azure Storage, Azure Blob Storage, Azure Backup, Azure Storage Disks- Premium, Azure data lake storage Gen 1, AWS S3 Cloud Storage, AWS EBS, AWS Storage gateway,NetApp/EMC Storage, SAN. |

**Professional Work Experience:**

**Sr Azure Cloud DevOps Engineer**

**Client: CVS Health- Houston Dec 2022 to Till Date**

**Responsibilities**:

* Setup AZURE Virtual Appliances (VMs) to meet security requirements as software-based appliance functions (firewall, WAN optimization and intrusion detections).
* Created TFS VNext Build agents and Pools, configured appropriate Build Agent capabilities.
* Implemented TeamCity and Octopus build tools and integrated with TFS.
* Created and wrote shell scripts (Bash), Ruby, Python and PowerShell for automating tasks.
* Automated Weekly releases with ANT/Maven scripting for Compiling Java Code, Debugging and Placing Builds into Maven Repository.
* Developed effective build, test, and deployment strategies for C# applications to ensure reliability and scalability
* Experience in Private Cloud and Hybrid cloud configurations, patterns, and practices in Windows AZURE and in AZURE web and database deployments.
* Gained experience in dealing with Windows AZURE IaaS - Virtual Networks, Virtual Machines, Cloud Services, Resource Groups, Express Route, Traffic Manager, VPN, Load Balancing, Application Gateways, Auto-Scaling.
* Analyzed and optimized existing C# codebases to enhance build and test systems based on user feedback and project requirements
* Configured VM's availability sets using AZURE portal to provide resiliency for IaaS based solution and scale sets using AZURE Resource Manager to manage network traffic.
* Designed IaaS and PaaS solutions for new clients migrating from onsite infrastructure to cloud.
* Implemented Micro-services using Pivotal Cloud foundry (PCF) platform build upon Spring Boot Services and created workflows on TeamCity for setting up automated pipelines for CI/CD with PCF.
* Built, implemented, and maintained hardware and software infrastructure to host TFS as a SaaS solution including.
* Managed and maintained the Azure DevOps ecosystem to support continuous integration, continuous testing, and reporting for C# projects
* Implemented a production ready, load balanced, highly available, fault tolerant Kubernetes infrastructure.
* Responsible for designing and deploying best SCM processes and procedures.
* Used Puppet to automate Configuration management and to manage Web Applications, Configured Files, Data Base, Commands, Users Mount Points and Packages.
* Managed local deployments in Kubernetes, creating local cluster and deploying application containers.
* Used JAXB 2 for OXM (Object XML Mapping). Used Jackson to parse Jason.
* Exposed Virtual machines and cloud services in the VNets to the Internet using External Load Balancer.
* Extensive experience in Windows AZURE (IaaS) migrating like creating AZURE VMs, storage accounts, VHDs, storage pools, migrating on premise servers to AZURE and creating availability sets in AZURE.
* DevOps Practice for Micro Services using Kubernetes as Orchestrator.
* Implemented and Managed multiple MS-SQL Database cluster with synchronizes database replication.
* Best Practices when Writing Container-Enabled Roles in Ansible.
* Configuring the Docker containers and creating Docker files for various environment and worked on kubernetes environment.
* Exported Requirements, test plans and test cases to TFS.
* Building and Installing servers through AZURE Resource Manager Templates (ARM).
* Written codebooks in Ansible by using Java, Python and Shell scripts.
* Hands on experience on configuration management by using ansible and Chef.
* Developed program connecting Bitbucket issues and to do list tasks to update each other.
* Administrated Jenkins for Continuous Integration and deployment into Apache Tomcat/Web Sphere Application Servers.
* Implemented test automation frameworks and scripting solutions utilizing Python and PowerShell, focusing on C# applications
* Created and maintained various DevOps related tools for the team such as provisioning scripts, deployment tools and staged virtual environments using Docker.
* Developing scripts for build, deployment, maintenance and related tasks using Jenkins, Docker, Maven, Python and BASH.
* Development web service using Windows Communication Foundation and .Net to receive and process XML files and deploy on Cloud Service on Microsoft Azure.
* Developed the parser for reading and processing the Ontology (OWL) files.
* Updating kernel & security patches in Amazon Linux environment, handling out of memory issues in Linux kernels during rebalance
* Creation of Prometheus- Grafana setup using Terraform /Ansible for various targets like Spark, MySQL, node exporters etc.,
* Experience in migrating on premise to Windows Azure using Azure Site Recovery and Azure backups.
* Experience with Docker Kubernetes and micro services in general
* Extensive experience in JIRA for creating bugs tickets, storyboarding, pulling reports from dashboard, creating and planning sprints.
* Design data model and creating the schema on SQL Azure.
* Experience in Custom Process design of Transformation via Azure Data Factory & Automation Pipelines.
* Deployed and Maintained windows phone applications on azure cloud technologies.

**Environment:** Microsoft Azure (IaaS & PaaS), Jenkins, JIRA, Subversion, AWS Cloud, Puppet, JBoss, MySQL, PostgreSQL, OpenStack, Apache, Nginx, FTP, Splunk, Docker, Windows Server 2003, C# projects, HTML, HTML5, OWASP, CSS3, Bootstrap, Code igniter, Adobe Fireworks and Sublime Text, Ansible.

**Sr DevOps Engineer**

**Client: T-Mobile, Seattle, WA Jan 2021 to Nov 2022**

**Responsibilities**:

* Prepared capacity and architecture plan to create the **Azure** Cloud environment to host migration of **IAAS** VMs and **PAAS** role instances for refactored applications and databases to improve the performance. Established connection from **Azure** to On-premises data center using **Azure ExpressRoute** for Single and Multi-subscription connectivity.
* Developed cloud migration strategy and implementation of best practices for On-Premises to Cloud migration utilizing AWS services such as database migration service and AWS server migration service using AWS Snow Family - Snow Cone & Snowball.
* Ensured successful deployment of web applications & database using AWS Cloud Formation to create custom sized VPC, subnets & NAT with IAM custom policies for users, groups, roles and enabling MFA - Multi Factor Authentication.
* Migrating production infrastructure into AWS utilizing AWS Cloud formation, Code Deploy, Terraform, EBS and OpsWorks.
* Deployed and configured Elastic search, Fluent and Kibana (EFK) for log analytics, full text search, application monitoring in integration with AWS Lambda and X-Ray.
* Used Amazon Route53 to manage DNS zones and give public DNS names to elastic load balancers IP's and AWS.
* Configured, monitored, and automated Amazon Web Services and involved in deploying the content cloud platform on AWS using EC2 and Beanstalk for deploying and scaling web application.
* Implemented server less architecture (SAM) using API Gateway, Dynamo DB and triggered the AWS Lambda code from Amazon S3 buckets.
* Managed AWS infrastructure as code (IaaS) using Terraform by setting up the build and deployment automation for resources like cloud Virtual Networks, Compute Engines in public and private subnets.
* Configured RDS instances and map more complex dependencies and identify network issue using Cloud formations (CFT) and terraform.
* Managed different infrastructure resources Cloud, VMware, Bare Metal Servers and Docker containers using Terraform.
* Provisioned the highly available EC2 Instances using Terraform and cloud formation and wrote new python scripts to support new functionality in Terraform.
* Using GITLAB Pipelines with GitLab Runner application to provide continuous automated periodic scheduled builds based on polling the GIT source control system to support development needs.
* Performed Source code management using GIT from master repository and Container management using Docker for creating images, Docker container snapshots, removing images and managing Docker volumes and for branching purpose.
* Provided end-to-end support for analysis, design & implementation of the applications in OpenShift Container Platform in both Private & Public environments like VMware and AWS.
* Used RedHat OpenShift container platform for Docker and Kubernetes to manage containerized applications utilizing nodes, ConfigMaps, node-selector, and Services, and deployed application containers as Pods.
* Managed Docker orchestration and Docker containerization using Kubernetes for pod containers scaling and auto-scaling.
* Created and deployed Kubernetes pod definitions, tags, labels, multi-pod container replication.
* Deployed pods using Replication Controllers by interacting with Kubernetes API server defining through declarative YAML files.
* Developed Dev/Test/Prod environments of different applications on AWS by provisioning Kubernetes clusters on EC2 instances using Docker, Bash & Terraform.
* Installed, monitored, configured applications in Nginx & Apache TOMCAT Server, establish connectivity to databases and troubleshoot issues.
* Deployed and configured JIRA on both hosted and local instances for issue tracking, workflow collaboration & tool-chain automation.
* Created Pre-commit hooks in Shell/Bash for authentication with JIRA-Pattern ID while committing codes in SVN, limiting file size code and file type and restricting development team to check-in while code commit.
* Worked on Cloud Formation to automate AWS environment creation along with the ability to deploy AWS using bill scripts (Boto3 & AWS CLI) and automate solutions using Python & Shell Scripting.
* Built and maintained ELK stack to centrally collect logs that are used to monitor applications.
* Used monitoring tools like Nagios & Splunk to improve application performance, helps to get the visibility & business context to meet business demands and implemented SPARK communication tool chat BOT for triggering alerts.

**Environment:** AWS, Docker, Kubernetes, OpenShift, Terraform, GIT, GitLab, GitLab Pipelines, GitLab Runner, SVN, Python, Shell Scripting, Bash, ELK, Nginx, Nagios, Splunk, SPARK, BOT.

**Sr. DevOps Engineer**

**Client: U.S. Bank, Atlanta, GA Nov 2020 to December 2021**

**Responsibilities:**

* Created and Managed **AWS** environment with **HA** and used the features **EC2, VPC, IAM, ELB, EBS, SNS, cloud watch, S3, creating AMIs and snapshots, RDS, creating security groups**, Subnets and Storage Gateway. Migrated an On-premises VMware DC to AWS using Lift and shift methods.
* Designed, implemented & supported Cloud Infrastructure solutions with AWS & GCP cloud services.
* Executed Blue Green Deployments for rolling upgrades in production with the hardware vendors and application teams.
* Developed, captured & documented architectural best practices for creating systems on AWS with technical and non-technical teams across AWS.
* Defined AWS Security Groups for virtual firewalls that controlled the traffic allowed to reach one or more AWS EC2 instances.
* Managed IAM, creating user accounts, groups, groups, roles, custom policies and assigning to groups & users, which give accesses to the services and with MFA (multi factor authentication).
* Managed all GCP (Google Cloud Platform) services like compute engine, cloud load balancing, cloud storage, cloud SQL, stack driver monitoring and cloud deployment manager.
* Setup GCP Firewall rules to allow or deny traffic to and from the VM's instances based on specified configuration and used GCP cloud CDN (content delivery network) to deliver content from GCP cache locations drastically improving user experience and latency.
* Designed GKE Topology Diagram including masters, slave, RBAC, helm, Kubec’ll, ingress controllers.
* Worked on Jenkins file with multiple stages like checkout a branch, building the application, testing, pushing the image into GCR, deploying to QA3, deploying to QA9, acceptance testing and finally deploying to production.
* Created projects, VPC's, Subnetwork's, GKE Clusters for environments QA3, QA9 and prod using CHEF.
* Virtualized servers for Test & Development environments and configuring automation using Docker containers.
* Managed, secured, and maintained multiple Kubernetes clusters to support a global service and provided a platform for automating deployment, scaling, and operations of application containers across cluster of hosts.
* Performed service migrations like lift & push on On-Perm and Azure servers and Prepared on CI/CD pipeline for Google Cloud Services using CHEF.
* Working with management tools like CHEF and responsible for managing the CHEF client nodes and upload the cookbooks to CHEF-server from workstation.
* Developed Scripts for AWS Orchestration and designed new back-end services, maintaining and expanding our AWS infrastructure and providing mentorship to other team members.
* Implemented Docker containers to create images of the applications and dynamically provision slaves as a part of Master-Slave configurations to Jenkins CI/CD pipelines.
* Setting up a CI/CD automation environment for the application team and guide them through the build and release automation process.
* Designed GIT branching strategies, merging per the needs of release frequency by implementing GIT flow workflow on Atlassian Bit bucket.
* Developed Dialogflow chat bot using Dialogflow libraries and configured the Dialogflow console to connect with the confidential project.
* Configured Confidential IAM console to work with Dialogflow and developed the reusable code for implementing the Dialogflow integration.
* Trained and added intents to Dialog flow to respond to the user queries in smarter way.
* Development of build artifacts on the source code, as well as SVN to GIT migration on JAVA projects using MAVEN & GRADLE as build tools.
* Written Cloud Formation Templates (CFT) in JSON & YAML format to build the AWS services with the paradigm of Infrastructure as a Code.
* Installed the Jenkins tool to integrate the JAVA project and kept Jenkins up to date with continuous integration and deployment.
* Administered and Engineered Jenkins for managing weekly Build, Test & Deploy chain with SVN / GIT / Code Commit between Dev/Test/Prod branching model for weekly releases.
* Applied logging solutions with Elastic search, Logstash & Kibana.

Environment: AWS + GCP, Docker, Kubernetes, CHEF, Jenkins, GIT, SVN, YAML, Bash, JSON, Apache TOMCAT, Dialogflow, OpsWork, JAVA, Apache MAVEN, Gradle, Atlassian JIRA, Vagrant.

**Sr. DevOps Engineer**

**Client: Trianz Holdings Pvt Ltd, India June 2016 to December 2019**

**Responsibilities:**

* Created and Managed **AWS** environment with **HA** and used the features **EC2, VPC, IAM, ELB, EBS, SNS, cloud watch, S3, creating AMIs and snapshots, RDS, creating security groups**, Subnets and Storage Gateway. Migrated an On-premises VMware DC to AWS using Lift and shift methods.
* Worked as a **DevOps** Engineer for a team that mainly worked closely with many proprietary tools and Open-source tools like **Jenkins, Gerrit, AWS, JIRA, Docker, Kubernetes, Chef**. Used for development and deployment of internal tools and programs.
* Monitored and maintained the **AWS S3 buckets** which contained all the packets of each build. Each packet had metadata files which were extracted to proceed with the flash testing.
* Configured and maintained the **AWS Lambda** function to trigger when there is a **Jenkins** build kicked off, which internally gets stored on **AWS S3** bucket for everybody to access. Created **Route53** to route traffic between different regions. Worked with **Security groups & Network ACLs**.
* To trigger changes made in **AWS Dynamo DB** integrated it with **Lambda**, created **Cron jobs** for initiating our daily batch data pulls, executing our continuous integration tests done under **Jenkins**& backup the **Dynamo DB** streams.
* Designed **AWS CloudFormation** templates to create custom sized **VPC**, subnets, **NAT** to ensure successful deployment of Web applications.
* Worked on implementing **Cloud Solutions** using various **AWS Services** including **EC2, VPC, S3, Glacier, EFS, AWS Kinesis, Lambda, Directory Services, Cloud Formation, Ops works, Code Pipeline, Code Build, Code Deploy, Elastic Beanstalk, RDS, Data Pipeline, DynamoDB, Redshift**.
* Worked with **Scheduling**, deploying and managing **Container** replicas onto a node cluster using **Kubernetes** and worked with building **Kubernetes** run time environment of the **CI/CD** system to build, test and deploy in our open-source platform.
* Worked on setting up **Jenkins** as a service inside the **Kubernetes** cluster to reduce the failover downtime to minutes and to automate the **Docker** containers deployment without using configuration management tool.
* Installed and used **Chef Server** enterprise on-premises, workstation and bootstrapped the nodes using Knife command. Created various **Roles & Environment**s & used **Chef Handlers** for auto kick-off requirement jobs.
* Designed an **ELK (Elastic Logstash Kibana)** system to monitor and search enterprise alerts and configured **ELK** stack in conjunction with **AWS** and using Logstash to output data to **S3**. Terminated **SSL** on to **Nginx** to remove overhead on **API servers**.
* Developed **AWS Lambda** functions in **Python** to automate **AWS Cloud Watch** scheduled events between services like **AWS SNS** and **AWS SES** to deliver notifications regarding **AWS EC2** instances to the team.
* Implemented **JIRA** to track all issues pertaining to the software development lifecycle &integrated **JIRA** with repositories of **GIT** to track all code changes.
* Developed **PowerShell** scripts to automate the project creation, setting permissions for users, groups in **TFS**. Developed automation scripting in **Python** using **Chef** to deploy & manage Java, .Net applications across **Linux/Windows** servers.

**Environment:** Amazon Web Servers (AWS),EC2,OpenStack, Docker, Kubernetes, Chef, Ansible, Jenkins, Maven/ANT, GIT, Elasticsearch, Logstash and Kibana (ELK), JIRA, WebLogic, Apache Tomcat, MongoDB, Linux/RHEL, Vagrant, Active Directory, LDAP, VMWare Servers, Windows, PowerShell, Ruby, YAML, Kafka, Shell, Bash, Python, terraform.

**Client: Synopsis, India April 2015 to May 2016**

**DevSecOps Engineer.**

**Responsibilities**:

* Implemented end-to-end infrastructure automation by creating and managing AWS services **Elastic Beanstalk, RDS Aurora, Lambda, S3, Neptune** using **Terraform** that support **Docker** running application requirements.
* Used **IAM** for creating roles, users, groups and implemented **MFA (Multi Factor Authentication)** to provide additional security to **AWS** account and its resources and Manage the user accounts (IAM- Identity Access Management), RDS, ROUTE 53, VPC, RDB, DynamoDB, SES, SQS and SNS service in AWS cloud.
* Transformed and moved large amounts of data into and out of other **AWS data stores** (**RDS**) and databases, such as Simple Storage Service (**Amazon S3**) and Amazon **DynamoDB** using **EMR**.
* Configured **Route 53 as a Domain Name Service across the enterprise** and configured public and private interfaces for the external clients and internal consumers.
* Implemented **Cloud Formation** for **AWS orchestration** and automated the workflow of AWS Cloud at every layer (such as application, network, storage, and monitoring, etc.) of AWS by writing cloud formation templates.
* Successfully deployed applications on to Ec2 Servers with zero down time by utilizing features of **AWS** autoscaling group with launch templates and make the application release life cycles are immutable with **AMI orchestration**.
* Converted **DevOps** methodologies in to **DevSecOps** model by introducing **security/vulnerability** scans different phases of DevOps like clear text password scan during the build and packaging phase of application and on the other hand responsible for implementing pre provisioning scans and post provisioning scans for **IAC** by adopting tools like terraform enterprise (**sentinel**) and Inspect framework for **AWS** cloud resource validations.
* Brought security standards in data management by applying **KMS** encryption strategy to encrypt the data at rest and implemented SSL encryption layer to encrypt the data during transport and plotted workflow for **DevSecOps** operating model
* Orchestrated and migrated CI/CD processes using Cloud Formation and Terraform templates and Containerized the infrastructure using **Docker**, which was setup in Vagrant. Used Ansible to configure the built resources and troubleshoot the build issues with ELK and work towards the solution.
* Managed **Kubernetes charts using Helm**, and built reproducible **Kubernetes** applications builds, managed Kubernetes manifest files and Helm package releases.
* Managed **Docker Containers**, **Kubernetes Clusters**, **Mesos** and implemented a production ready, load balanced, highly available, fault tolerant **Kubernetes** infrastructure and created **Jenkins jobs** to deploy applications to **Kubernetes Cluster**.
* Integrated **Jenkins with Docker container** using Cloud Bees **Docker** pipeline plugin to drive all microservices builds out to the **Docker Registry**. Integrated Selenium automation regression test suite in **Jenkins** build pipeline to avoid issues in the production.
* Automated **AWS** infrastructure through infrastructure as code by writing various **Terraform** modules, null resource scripts to create AWS **IAM** users, groups, roles, policies, custom policies, AWS Glue, Crawlers, Redshift clusters, snapshots of clusters, EC2, S3 buckets, application deployments.
* Implemented **AWS** web application firewalls to monitor the web requests that are forwarded to **API** Gateways and Application Load balancers to enable the security model
* Troubleshooting of network issues using **DHCP, DIG, DNS, SNMP, SMTP, Ethernet, IOS, netstat, NFS, NIS, nslookup, RIP, OSPF, BGP, TCP/IP, and tcp dump.**

**Environment**: AWS, Azure, Jenkins, Ansible, Terraform, Docker, Kubernetes, AWS Security Hub, AWS Control Tower, Splunk, Redshift, Elastic Beanstalk, Maven, Nexus, Amazon ECS, Cloud Formation, Python, YAML, Bitbucket