**Thirupati **

**Cloud / DevOps Engineer**

**tirugi89@gmail.com**

**Ph.No: +1 972-662-8191**



**PROFESSIONAL SUMMARY**

Overall, 10 years of experience in Automating, configuring, and deploying instances on cloud environments like **AWS, Azure.** Experience in popular DevOps tools such as **Jenkins, CI/CD Pipeline**, **Maven, Ant, Git, GitHub, Ansible, Docker, Kubernetes and Terraform**.

* Experience on AWS platform and its dimensions of scalability including **EC2, S3, Route53, ELB, EBS, ECS, ECR, VPC, AMI, SNS, RDS, IAM**, **Auto Scaling, CloudFront**, **CloudWatch, CloudTrail, Cloud Formation, OPSWork, Security Groups.**
* Experienced in designing **roles** and **groups** for users and resources using **AWS** **Identity Access Management** (IAM). Managed multiple **AWS** accounts with multiple VPC's for both production and nonproduction where primary objectives included **automation, build out, integration** and **cost control**.
* Proficient in implementing various AWS services like EC2, RDS, S3, Lambda, VPC, etc., and designing strategic plans for **on-premises** to **AWS Cloud migrations**.
* Utilized **AWS CLI** to automate backups of ephemeral data-stores to **S3 buckets**, **EBS** and create nightly AMIs for mission critical production servers as backups.
* Designed and deployed a highly available and fault tolerant infrastructure on **AWS** using **terraform** modules, these module's install a web application in the public subnet and database in the private subnet which can communicate using the local route table in the **VPC**.
* Set up and manage AWS API Gateway to create, publish, and secure APIs at any scale, integrating them with various AWS services to offer comprehensive solutions.
* Experience in Implementing a 'server less' architecture using **API Gateway, Lambda, and DynamoDB** and deployed AWS Lambda code from Amazon **S3 buckets**. Created a Lambda Deployment function, and configured it to receive events from your S3 bucket
* Designed the data models to be used in data intensive **AWS Lambda** applications which are aimed to do complex analysis creating analytical reports for end-to-end traceability, lineage, definition of Key Business elements from **Aurora**.
* Expert in deploying and managing infrastructure using AWS **Cloud Formation**, allowing for consistent and repeatable infrastructure provisioning. Regularly utilized Cloud Formation templates to define and launch multi-tier web applications, databases, and network configuration.
* Experience on AWS **CodeDeploy** for application deployment, integration with CI/CD pipelines, scripting and automation, collaboration across different teams, implementation of various deployment strategies, and proactive monitoring and troubleshooting.
* Experience in different migration services like AWS **Server Migration Service** (SMS) to migrate on premises workloads to AWS in easier and faster way using Rehost “lift and shift” methodology and AWS **Database Migration Service** (DMS), AWS Snowball to transfer large amounts of data and Amazon S3 Transfer Acceleration.
* Experience in writing **terraform modules** for automation the Creation of **VPC-VPN** from data center to Prod environment and Cross account VPC Peering.
* Experience in **AWS Cognito** for user authentication and authorization, identity federation, customization for branding purposes, and scalability and performance optimization
* Utilized **AWS Cloud watch** to monitor environment for operational & performance metrics during load testing.
* Experience in **migrating** infrastructure and application from **on** **premise** to **Azure** and from Cloud to Cloud such as AWS to Microsoft Azure.
* Extensive experience in **Windows** **Azure** (IaaS) migrating like creating Azure **VMs**, **storage accounts, CosmosDB, storage pools**, migrating on premise servers to Azure and creating availability sets in Azure.
* Experience in dealing with **Windows Azure IaaS** - Virtual Networks, Subnets, Load balancers, Virtual Machines, Cloud Services, Resource Groups, Express Route, VPN, Load Balancing, Application Gateways, Auto-Scaling, and Traffic Manager.
* Serve as the primary SME on Azure services including **SaaS, PaaS** and **IaaS** while contributing to architecture decisions for our ongoing migration efforts. and providing Support, Guidance, and Implementation in respect to Azure Provisioning and Application Deployment Automation for **IAAS** and **PAAS**.
* Built and maintained Infra DevOps team's **CICD pipeline** using technologies such as **Git, Maven, Jenkins, Nexus, SonarQube, PostgreSQL, Ansible, Docker, Kubernetes**.
* Wrote **Ansible** Playbooks with **Python SSH** as the Wrapper to Manage Configurations of **AWS nodes** and Tested Playbooks on **AWS instances** using Python. Run Ansible Scripts to Provide Dev Servers.
* Experienced in Setting up Auto Scaling of the instance group using **GCP CLI** and GCP cloud environments for **DEV/QA** environments and Provided proof of concept (POC) on designing server less architecture using **Cloud Dataflow**, **Cloud Data prep** and **Google Cloud Functions**.
* Setup Alerting and monitoring using stack driver in **GCP**, evaluating performance of **GCP instances**, CPU, Memory Usage and setting up health checks, **GCS** and **VPC**.
* Expertise in Branching, Merging, Tagging and maintaining the version across the environments using SCM tools like (**GIT)** and Subversion (**SVN**) on Linux platforms.
* Extensive experience using **Maven**, **ANT** and **Gradle** as a build tool for the building of deployable artifacts (**war**&**ear**) from source code.
* Good experience in configuring **Jenkins** to build **CI/CD pipeline** which includes to trigger auto builds, auto promote builds from one environment to another, code analysis, auto version etc. for various projects.
* Expertise in implementing **blue-green** and **canary deployment** strategies to ensure zero downtime during application updates; skilled in setting up automated rollback processes in case of deployment failures to maintain system stability.
* Experience in writing **Ansible** playbooks, password-less SSH connection to nodes, running a shorter task in asynchronous mode, polling the tasks, add/remove cron jobs, running playbooks with ansible-playbook.
* Handled several **Docker** components like Docker Engine, Hub, Machine, Compose and Docker Registry and experience with **Docker** container service and Dockerized applications by creating Docker images from **Docker** file and running them to create the Docker containers and Docker consoles for managing the application life cycle.
* Basic knowledge in installing **Kubernetes,** initiating the **Kubernetes** cluster, installing pod network, setting up the dashboard, exploring the dashboard and joining the node to the cluster.
* Skilled in monitoring servers using Nagios, Splunk, Sumo Logic for Network **Monitoring**, Resource **Monitoring** and Log Trace **Monitoring**.
* Integrated **Jenkins** shows traces of **SonarQube** runner execution and displayed results in the sonar dashboard.
* Extensive involvement in **LINUX/Unix system Administration, System Builds, Server Builds, Installations, Upgrades, Patches, Migration, Troubleshooting on RHEL.**
* Good understanding of the principles and best practices of **Software Configuration Management (SCM) in Agile, scrum, and Waterfall methodologies.**

## **TECHNICAL SKILLS:**

* Operating Systems : Ubuntu, Unix, RedHat Linux 5/6/7, CentOS 5/6/7, Windows.
* Programming & Scripting Languages : JSON, SQL, Shell Scripting, Python, YAML, HTML
* Cloud Services : Amazon Web Services (AWS), Azure.
* Version & Build Tools : Github, Bitbucket, Maven, Ant.
* CICD Tool : Jenkins, Ansible.
* Artifact Repository & Code Quality : Nexus, SonarQube.
* Configuration Management Tools : Ansible.
* Deployment/ Orchestration Tools : Docker, Kubernetes.
* Ticketing Tool : ServiceNow, Jira
* Production Support : Apache, Nginx, Tomcat.
* Programming Languages : Python, Java
* General Skills : Good Communication and presentation skills, team player.

## **WORK EXPERIENCE:**

**Cloud Infrastructure / DevOps Engineer|**

**Credit Suisse, Raleigh, NC June 2021 – Present**

**Responsibilities:**

* Working as a **DevOps Engineer** for a team that involves three different development teams and multiple simultaneous software releases.
* Migrating and maintaining build and test environments into the **Cloud Infrastructure**.
* Configure, monitor, and automate **Amazon Web Services** as well as involved in deploying the content cloud platform on **Amazon Web Services** using **EC2, S3** and **EBS**.
* Configured an **AWS Virtual Private Cloud (VPC)** and **Database Subnet Group** for isolation of resources within the **Amazon RDS Aurora DB** **cluster** and created notifications and alarms for **EC2** instances using **Cloud Watch.**
* Designed and implemented AWS **Cloud Formation** templates to automate the provisioning of AWS resources, ensuring consistency, and compliance across multiple environments, to reduce infrastructure setup time.
* Utilized AWS **Cloud Formation** to manage and provision AWS infrastructure through code, adhering to best practices for IaC, which enhanced team collaboration and version control, and reduced manual configuration errors.
* Designed and integrated custom **Cloud Formation** resources using AWS **Lambda** to fulfill unique project requirements
* Designed **AWS Cloud Formation** templates using JSON to create customized VPC Subnets, NAT to ensure successful deployment of Web applications and databases and created cross-account **KMS roles** to give access to users.
* Implementated AWS **CodeDeploy** for automating application deployments across multiple environments to reduce deployment times and a significant increase in deployment consistency.
* Integrated AWS **CodeDeploy** with Jenkins to establish a CI/CD pipeline, automating the build, test, and deployment processes, which enhanced the software release cycle and reduced the risk of human error.
* Configured **Identity Access Management (IAM)** Group and users for improved login authentication.
* Used **AWS Tag Editor** for comprehensive organization and tagging of AWS resources across multiple accounts and regions, significantly improving resource manageability and enabling accurate cost allocation.
* Implemented **AWS** **Cognito** for secure user authentication and authorization across multiple web and mobile applications, supporting over 100,000 active users and ensuring compliance with industry-standard security protocols.
* Worked on creating server-less Micro services by integrating **AWS Lambda, S3/Cloud watch/API Gateway**.
* Used **AWS lambda** to run servers without managing them and to trigger to run code by **S3 and SNS.**
* Configured and managed **VPCs**, **security groups,** and **IAM** roles specifically for **EKS Fargate** workloads. Utilized Fargate’s built-in security features, such as network isolation and task-level IAM roles, to ensure a secure runtime environment for critical applications.
* Successfully employed AWS Database Migration Service (**DMS**) for migrating databases into AWS, achieving seamless transitions with minimal downtime.
* Hands-on experience with **AWS S3** for scalable object storage, **DynamoDB** for NoSQL database management, and **RDS** for relational database services, ensuring efficient data retrieval and secure storage for diverse applications.
* Involved in the actual **migration** activities, possess a keen understanding of the process, including planning, designing, and implementing migration activities. Familiarity with troubleshooting potential issues that may arise during migration.
* Responsible for Continuous Integration (CI) and Continuous Delivery (CD) process implementation-using Jenkins along with Python and **Shell scripts** to automate routine jobs.
* Connected **continuous integration** systems with the **GIT** version control repository and continually built as the **check-ins** came from the developer and Managed **Maven** project dependencies by creating parent-child relationships between projects.
* Collaborated with development & support teams to service a continuous delivery environment with the use of build platform tool **Docker**
* Integrated **EKS Fargate** with CI/CD tools to automate the deployment, scaling, and management of containerized applications. Ensured zero-downtime deployments and efficient resource utilization by leveraging the serverless nature of Fargate within the EKS environment.
* Involved with **Docker and Kubernetes** on multiple cloud providers, from helping developers build and containerize their application (CI/CD) to deploying either on public or private cloud.
* Kubernetes architecture: node, **kubelet manages pods**, their containers, images, volumes, network etc. kube-proxy is a simple network proxy and load balancer responsible for reflecting services on the nodes.
* Created, managed, and performed container-based deployments using **Docker images** containing middleware **(Apache Tomcat)** and Applications together and evaluated **Kubernetes** for **Docker container orchestration**.
* Managed **Docker orchestration** and **Docker containerization** using **Kubernetes** to orchestrate the deployment, scaling, and management of **Docker Containers**.
* Linux container orchestration with **Docker, Kubernetes, CoreOS, etcd**, and more

**Cloud / DevOps Engineer|**

**Hollister Co, Chicago, IL June 2019 – June 2021**

**Responsibilities:**

* Worked on **Azure PaaS** Solutions like **Azure Web Apps, Web Roles, Worker Roles, SQLAzure** and Azure Storage. And managing Azure Storage Accounts and Creating **ARM templates** for Azure Platform.
* Worked on Migrating servers, databases, Docker, and applications from on premise to Azure.
* Working on **Microsoft Azure** in creating cloud environment and managing the application servers across Microsoft managed global data cent.
* Designed and configured **AZURE Virtual Networks, subnets, network settings, DHCP address blocks, DNS settings,** and **Security policies and routing.**
* Configured storage account, a vault, and a virtual network in **Azure**, enabled replication for individual VM, and monitored automated mechanisms within **Azure site recovery** (ASR) during the migration of AWS based services on Azure.
* Setup **Azure Devops** for VMs applications migrating from on-prem. **Azure** Boards and Enterprise Git integration. YAML files for automation and CI/CD.**ARM templates** for managing the VMs, Key Vaults, Storage accounts.
* Configured DSC configurations to deploy Web Servers to Azure VMs. Configured **Azure Automation DSC** configuration management to assign permissions through **RBAC**, assign nodes to proper automation accounts and DSC configurations, to get alerted on any changes made to nodes and their configuration.
* Added Nodes to the existing OpenShift Cluster either **Master** or **Infra** or **Worker** node by using the **Scaleup Manifest** file.
* Built an on demand dedicated server hosting platform using **Docker, Golang** and **Redis**.
* Developed Terraform plugins using **Golang** to manage infrastructure which improved the usability of our storefront service.
* Worked on Configuration management using **git, ansible playbooks, shell, and python scripts.**
* Installed and configured Jenkins tools on Linux and windows platforms, manage slaves and installing Jenkins plug-ins.
* Management and design of integrated build pipelines using continuous integration and continuous development workflows such as **Jira, Git, Jenkins, and Maven**.
* Integration of Automated Build with Deployment **Pipeline.**
* Build, manage, and continuously improve the build infrastructure for global software development engineering teams including implementation of build scripts, CI infrastructure and deployment tools.
* Expertise in automation using **Ansible and Terraform**, build management using Jenkins, deploying the applications on various environments.
* Have written **Terraform** templates that can spin up infrastructure for multi-tier application and provisioned boot strapped software on Cloud with terraform
* Worked on **Docker** container snapshots, attaching to a running container, removing images, managing volumes, linking containers, and managing containers.
* Implemented Configuration Management, Change Management policies and procedures.

**AWS / DevOps Engineer**

**Starbucks – Seattle, WA Jan 2018 – May 2019**

**Responsibilities**:

* Responsible for implementing **AWS** solutions and setting up the cloud infrastructure with different services, like **EC2, S3, VPC, ELB, AMI, EBS, RDS, Auto Scaling, Route53, Subnets, NACL's, CloudFront, Cloud Formation, Cloud Watch Cloud Trail, SQS** and **SNS**.
* Implemented Cloud **Infrastructure as a Service (IaaS)** Automation across **AWS** Public Cloud using **Terraform** to Provision Infrastructure across **AWS Workloads.**
* Worked at optimizing volumes and **EC2** instances and created multiple **VPC** instances and experience in creating alarms and notifications for **EC2** instances using **Cloud Watch.**
* Implementing **Cloud Automation** Solutions using AWS: Experience with Automation/Orchestration (**Cloud Formation**, etc) would be helpful.
* Integrated **Cloud Formation** with CI/CD pipelines, allowing for seamless template versioning, peer reviews, and automated stack deployments. Utilized AWS-specific tools like AWS CodeDeploy and third-party solutions to ensure a smooth deployment and rollback mechanism for infrastructure code.
* Implemented various deployment strategies using AWS **CodeDeploy**, including blue/green and rolling deployments, to minimize downtime and ensure seamless application updates.
* Monitor **CloudTrail** logs to Audit EC2, EMR, S3 and other AWS resources.
* Used **Google stack driver** for monitoring the logs of both **Google Kubernetes** **Engine** (**GKE)** and **GCP** instances and configured alerts from Stack driver.
* Used **GCP** cloud content delivery network (CDN) to deliver the content from **GCP** cache locations to improve the user experience and latency. Migrating the Legacy application into GCP platform and managing the GCP services
* Set up auto scaling of the instance group for DEV/QA environments using **GCP CLI** (Command line tools) and **GCP** cloud environments and provided proof of concept (POC) on creating serverless architecture with **GCP**.
* Experience in writing server-side code for **Google Cloud Platform** (GCP) based applications, creating robust high-volume production applications and developing prototypes quickly.
* Configured **GCP** Firewall rules to allow or deny traffic to and from the **VM's** instances based on specified configuration and used **GCP** content delivery network to deliver content from **GCP** cache locations.
* Experience in administration and maintenance of Source Code Management (**SCM)** systems such as **GIT** created tags and branches fixed merge issues and administration software repositories.
* Maintained build related scripts developed in the **shell** for **Maven** builds. Created and modified build configuration files including **POM.xml** and Responsible for Debugging and Placing Builds into **Maven Repository**.
* Strong Knowledge/experience in creating **JenkinsCI** pipelines. Experience in **Jenkins** to automate most of the build related tasks. Expertise in staging and creating **CI/CD** pipelines and Merge changes through **SDLC** pipeline **Jenkins** and GO for Continuous Integration.
* Automated the tasks with **Ansible Playbooks** by using **YAML** functions and migrating the servers with the required configuration changes and testing and deploying the machines using **Ansible Commands.**
* Created **Kubernetes cluster** with objects like **Pods, Deployments, Services** and **Config-Maps**

**DevOps Engineer Mar 2017 – Dec 2017**

**Mi9 Retail – Miami, FL**

**Responsibilities:**

* Implemented AWS solutions using EC2, S3, RDS, EBS, and **Elastic Load Balancer**, Auto scaling groups and optimized volumes, EC2 instances.
* Monitoring and alerting of production and corporate servers such as EC2 and storage such as S3 buckets using AWS **Cloud Watch.**
* Setting up scalability for application servers using command line interface for Setting up and administering DNS system in AWS using **Route53.**
* Installed and configured **Jenkins** master and slave nodes, installed plug-in, configured security, created a master and slaves for implementation of multiple parallel builds. Used Jenkins, Build forge for Continuous Integration and deployment into Tomcat Application Server.
* Administered and Engineered Jenkins for managing weekly Build, Test and Deploy chain as a **CI/CD process,** SVN/GIT with Dev/Test/Prod Branching Model for weekly releases.
* Expertise in using builds tools like MAVEN and ANT for the building of deployable artifacts such as war & ear from source code.
* Installed, configured and maintained web servers like **HTTP Web Server**, Apache Web Server and WebSphere Application Server on RedHat Linux.
* Maintain and troubleshooting of High available critical applications running on Apache and MySQL/PostgreSQL database.
* Highly skilled at supporting web and application servers (**Apache, Nginx, NodeJS, JBoss, Tomcat**) and Hands-on experience with installing and managing MySQL and Amazon web servers (AWS).
* Schedule **CronTab jobs** and use bash shell scripts to assist in automating various system administrators’ tasks.
* Writing **Bash scripts** for at, anacron and cron job entries, this included in maintaining various **log files.**
* Good experience in working with a team together to deliver best outputs in given time frames.

**Site & Reliability Engineer May 2014 – July 2015**

**BroadRidge Financial Solutions, Hyderabad**

**Responsibilities:**

* Setup CI/CD environment with **Puppet, Jenkins, Maven, Nexus** for different properties to automate application deployments for Linux platforms.
* Created and updated Puppet manifests and modules, files, and packages stored in the GIT. Used M-collective for Parallel jobs execution & monitored Puppet Dashboard.
* Created **Jenkins** workflows using Groovy script to automate the entire **build and deployment** process. And Build Jenkins jobs and stores the build artifacts in Nexus and **Udeploy** by using pre configured scripts.
* Performed **SVN** to **GIT/Bitbucket** migration and managed branching strategies using **GIT workflow**. Managed **User access control, Triggers, workflows, hooks, security,** and **repository control** in **Bitbucket.**
* Created the **ANT** scripts and extension of existing ANT scripts for deployment of applications to **Jenkins**.
* Used **Maven** and streamlined entire build system, optimized builds scripts, managed **build,** and **release infrastructure.**
* Developed Python scripts to automate applications migration and monitor application health during migration.
* Created and wrote **shell scripts (Bash), Ruby, Python** and **PowerShell** for setting up baselines, branching, merging, and automation processes across the environments using **SCM** tools like **GIT, Subversion (SVN), Stash** and **TFS on Linux** and **Windows platforms.**
* Automated Deployment of Java based applications into **Tomcat, WebLogic servers using Puppet** and **Jenkins**.
* Responsible for the administration, installation, configuration, troubleshooting and support of **MySQL** in **Linux/AIX** and **Windows platforms**. Provided technical support and training for more than 300 users in the organization.

**Linux Administer March 2012 - April 2014**

**Spark Software Solutions, Hyderabad, India**

**Responsibilities:**

* Installing, configuring, upgrading and supporting Red Hat Enterprise Linux servers in an enterprise Data Center environment.
* Responsible for creating and managing user accounts, security, rights, disk space and process monitoring in Solaris, CentOS, Redhat, Ubuntu Linux.
* Worked as an administrator in various aspects of Linux (Red Hat) server administration including installing and maintaining the operating system software, performance monitoring, problem analysis and resolution and production support.
* Monitored server and application performance and tuned I/O, memory and Installation of SSH and configuring of keys based authentication.
* Worked in implementing and configuring network services such as HTTP, DHCP, and TFTP.
* Install and configure DHCP, DNS (BIND, MS), web (Apache, IIS), mail (SMTP, IMAP, POP3), and file servers on Linux servers.
* Strong understanding in writing the automation of processes using the shell script with bash
* Production support of Apache, Apache HTTPD, JBoss, Tomcat and Oracle Web logic 10.3 application servers including installation, configuration, and management and troubleshooting. Strong experience in VM environments like XEN, KVM, Oracle Virtual Box and VMWare 5.0.
* Updated data in inventory management package for Software and Hardware products.

**EDUCATION:**

**Master of science (M.S) in Information Systems from New England College, NH USA.**