** Malshetty Abhishek**

**DevOps Engineer**

# Description:

Over 8 years of professional experience in IT, specializing in Cloud technologies and DevOps practices. Proficient in a wide range of DevOps processes, including System Administration, Build and Release Management, Continuous Integration, Continuous Deployment, Configuration Management, and Containerization. Skilled in following with best practice in Software Development Life Cycle (SDLC) and wide experience in industry standard methodologies like Agile, Scrum, Kanban and waterfall.

* Comprehend and clear understanding of **IaaS (Infrastructure as a Service)** and **SaaS (Software as a Service)** and

**PaaS (Platform as a service)** in **AWS** and  **Azure**.

* Experience in Amazon Web Services and especially the services in AWS like **EC2**, **ELB**, **Auto scaling**, **S3**,**IAM**, **VPC**, **RDS**, **DynamoDB**, **CloudWatch**, **CloudTrail**, **Lambda**, **Elastic**-**cache**, **Glacier**, **Elastic Beanstalk**, **EKS**, and **ECR**.
* Astute in building up an **AWS** database using **RDS**, **DynamoDB** and creating occurrence reinforcements and chronicles to Ice sheet and set up AWS Redshift for Information Warehousing.
* Created a serverless architecture by separating architecture responsibilities from workloads and deploying Lambda code to **S3** buckets using **API Gateway** and **Lambda**.
* Led the installation, configuration and deployment of product softwares on new edge nodes that connect and contact **Kafka** cluster for data acquisition.
* Use **Kafka** a publish-subscribe messaging system by creating topics using consumers and producers to ingest data into the application for Spark to process the data and create **Kafka** topics for application and system logs.
* Worked on Configuring Zookeeper, **Kafka** and Logstash cluster for data ingestion and Elasticsearch performance and optimization and worked on **Kafka** for live streaming of data.
* Created **Kafka** producer API to send live-stream data into various **Kafka** topics.
* Progressed from a simple concrete system implementer to a complex abstract system domain modeler. Excellent analytical skills. IS professional who has an intuitive understanding of convergent patterns, system part whole interrelationships, processes, and systems. Adept at quickly transforming subject matter expert knowledge into conceptual business models with domain driven analysis and design. Experience implementing systems using **Event Driven Architecture (EDA),** Model Driven Architecture (MDA) transforming conceptual business models into functional Service Oriented Architecture (SOA) information systems. Background as a solution architect, system analyst, project manager, and technical leader and trainer allows integration of business, technical, and user concerns into coherent information system solutions.
* Expertise in Azure services such as virtual machines, App Service, **Azure SQL**, **Blob Storage**, **Cosmos DB**, **Network Services**, **Subnets**, **VNets**, **Load Balancer**, **Azure Resource Manager**, **Scheduling**, **AKS**, and **ACR**.
* Knowledge of how to use **Azure Active Directory** to construct Service Principal connections between **Azure DevOps** and **Azure Cloud** in order to integrate web app services and deploy them.
* Expert in migrating VMs from on-premises to **Azure using Azure Migrate**, as well as creating an Azure Disaster Recovery Environment and Azure backups from scratch using PowerShell scripts.
* Expertise in using **Terraform** to create scripts to launch cloud infrastructure and manage, implemented all
* infrastructure deployments by maintaining clean **Terraform** code using workspaces and modules and hands on experience on **Terraform** for building and versioning infrastructure safely and efficiently.
* Worked on **Docker App Containerization**, developing **Docker images**, **Containers**, **Docker Registry** to store images, **Docker Hub cloud-based registry**, and **Docker Swarm** to manage containers.
* Worked with **Scheduling**, **deploying**, **managing** container replicas onto a **node** using **Kubernetes** and experienced in creating **Kubernetes clusters** and managing container replicas onto a node cluster using Kubernetes
* Experience in using **Ansible** as Configuration management tool, to automate repetitive tasks, quickly deploys critical applications, and proactively manage change.
* Created and updated **Chef Recipes** and **Cookbook** profiles and roles using **Ruby** and **JSON** scripting and have migrated all nodes from ansible configuration system to chef system.
* Used **Puppet** as configuration management tool and written different manifests and modules in **Puppet** to automate repetitive tasks, quickly deploying critical applications, and proactively manage changes.
* Expertise with build tools like **Maven**, **Ant** and **Gradle** for building deployable artifacts such as **jar**, **war**, **ear** files from source code and antifactory repository like **Nexus** and **JFrog** to upload and manage build artifacts.
* Experience in setting up the **Jenkins**, **GitLab CI**, **GitHub** actions, **Bamboo** for Continuous Integration and for end- to-end automation for all build and deployments by setting up various pipeline jobs for various test environment.
* Experienced in working with **Jenkins** for creating **new jobs**, managing required plugins, **build trigger**, **build system**, **post build actions**, **scheduling** automatic builds and notifying the **build report**.
* Experience in working with system health and monitoring tools like **Splunk**, **Nagios**, **Dynatrace**, **Prometheus**, **ELK**

and **CloudWatch** along with creating analytic report and custom dashboards for improved monitoring.

* Proficient in querying **RDBMS** such as **Oracle**, **MySQL** server by using **SQL** for data integrity for creating **database**, **Tables**, **Views**, **Stored Procedures**, **Indexes**, and **Constraints**, **Triggers**, User Roles and automated repetitive tasks.
* Experience in installing, configuring and managing **Docker images** for web servers and application servers such as

**Apache Tomcat** and integrate with Amazon **MySQL RDS** database.

* Experienced in using **Tracking tools** like **Jira, Bugzilla, Remedy and ServiceNow** to track all issues related to the software development lifecycle.

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| **AWS Cloud Services** | EC2, VPC, S3, Route53, SNS, IAM, CloudFront, EBS, ELB, ECS, EKS, Lambda,  CloudFormation, CloudFront, CloudWatch, Auto Scaling, SQS, Elastic Beanstalk, etc. |
| **Microsoft Azure** | VM, Active Directory, ARM, App Service, AKS, ACR, Blob storage, Azure SQL,  Azure monitor, Azure Functions, Cosmos DB, etc. |
| **Google Cloud Platform** | Compute Engine, Cloud Functions, BigQuery, GCR, GKE, Data Proc,  DataFlow, App Engine, Knative, Cloud storage, Cloud Datastore, etc. |
| **Infrastructure as a Code (IaaC)** | CloudFormation, ARM, Terraform |
| **Containerization Tools** | Docker, Kubernetes, OpenShift |
| **Configuration Management Tools** | Chef, Ansible, Puppet |
| **Build Tools** | Maven, Ant, Gradle |
| **Continuous Integration Tools** | Jenkins, Bamboo, GitLab CI, GitHub Actions, TeamCity |
| **SCM/Version Control Tools** | GitHub, SVN, Bitbucket |
| **Artifactory Repositories** | Sonatype Nexus, JFrog |
| **Logging and Monitoring Tools** | Nagios, Splunk, Prometheus, Grafana, Log DNA, ELK, AppDynamics,  Dynatrace, Data Dog, Sysdig |
| **Databases** | Oracle, MongoDB, SQL Server, MS SQL, MySQL, NOSQL, Cosmos DB,  PostgreSQL, Cassandra, Snowflake |
| **Scripts/ Languages** | HTML, Bash, Shell Scripting, Ruby, Groovy, YAML, Python, Java, Perl,  PL/SQL |
| **Bug Tracking Tools** | Jira, Bugzilla, HP-ALM, Remedy, ServiceNow |
| **Virtualization Tools** | Oracle VM virtual Box, VMware, Vagrant |
| **Servers** | Apache Tomcat, WebLogic, WebSphere, Jboss, Wildfly, IIS, and Nginx |
| **Operating System** | UNIX, Linux (Ubuntu, RHEL, Centos), Windows |

# Professional Experience:

Client: Norfolk Southern, **Atlanta, GA** From April 2023- till date

Senior Azure/DevOps Engineer

**Roles and Responsibilities:**

* Experience with deploying and managing **containerized applications** on Azure Kubernetes Service (AKS) using **Terraform** as the infrastructure-as-code tool.
* Designed, configured, and deployed Azure Resource Manager (ARM) templates for multiple application**s** utilizing the Azure stack including **Compute**, Web App, **function app**, Blobs, **Data Factory**, Resource Groups, HDInsight Clusters, **Azure Cosmos DB**.
* Proficiency in writing **Terraform modules** to provision and manage **AKS resources**, including virtual networks, load balancers, **Kubernetes objects**, and **container Instances**.
* Involved in configuration **of** Web apps/Function apps, V-net integration, HCM, Application gateway, App Insights, Active directory, Azure Key Vault, Encryption and Security on Azure.
* Closely collaborate with security architects in developing cloud security frameworks for the enterprise and **Security Patching** on the **Azure IAAS VMs**.
* Proficient in using **Azure Key Vault's** versioning, key rotation, and **hardware security module** (HSM) features for enhanced security and compliance.
* Familiarity with **Chef Habitat** features such as packaging, service discovery, and runtime management.
* Strong understanding of **Chef** best practices and design patterns, and ability to automate infrastructure provisioning and configuration management tasks.
* Migrated servers like **relational databases (SQL)** and websites to **Microsoft Azure cloud** and deploying applications on multiple web servers and maintained load balancing, high availability and synchronized on premises **Active Directory** users to office 365 with **ADCONNECT**.
* Deployed**ASP.NET** web Application in **Azure** using Web App service, connected it to **Azure SQL Database** and used **AZDO** to provide CI/CD pipeline and created **Azure Active Directory (AD)** tenants and managed to restrict the access to **AZDO** (Azure DevOps).
* Worked on **azure log analytic workspace** where bulk logs are available once the **Kubernetes** is enabled, then used **logic app** to filter the required logs and used event hub to transfer the logs to **Splunk.**
* Deployed microservices based applications on **Azure Kubernetes** by using **Azure Kubernetes** service (**AKS), Ingress API Gateway, MySQL, SQL Databases** and **Cosmo DB** for stateless storage of external data, and setup reverse proxy Nginx servers and encrypting with **SSL** and **TLS.**
* Hands on experience with Provisioning Service Fabric Clusters and **Application Gateway** using **ARM, PowerShell** and **Azure Portal** which is a distributed systems platform to deploy and manage Microservices with high availability.
* Deployed and optimized two tier web applications to **Azure DevOps CI/CD** to focus on development by using services such as Repos to commit codes, Test Plans to unit test, deploy App Service, **Azure Application Insight** collects health performance and usage data of the process, stored **artifacts** in **blob storages**.
* Created **Azure** infrastructure using **ARM templates, Azure pipelines** to build, test, and release, and managed **Azure Container Registry** to store **private Docker images**, which are deployed. **Grafana Monitor** to collect metrics and logs. Configured Monitor to track performance and maintain security, and used **Grafana** tool to collect metrics, queries.
* Worked on implementing microservices on **Kubernetes** Cluster and Configured Operators on Kubernetes applications and all its components, such as **Deployments**, **Config Maps, Secrets** and **Services**
* Worked on multiple areas of **Jenkins** like Plugin Management, Securing **Jenkins,** Performance issues, Analytics, Scaling **Jenkins,** integrating Code Analysis and test Phases to complete the CD pipelines within **Jenkins.**

Client: Whistle, Francisco, California From Sep 2022- To Feb 2023

Senior Azure Infrastructure Engineer

**Roles and Responsibilities:**

* Migrated the Data using **Azure database Migration Service** (AMS). Experience with cloud, hybrid, and IT-as-a-Service models including implementation and migration (Azure). Integrate **on-premises** **Windows AD** with **Azure AD**, configure multi-factor authentication (MFA) and federated **single sign-on (SSO**).
* Responsible for creating and managing **Azure AD tenants, manage users and groups**, and configure application integration with **Azure AD.**
* Managing Azure Infrastructure **Azure Web Roles, Worker Roles, SQL Azure, Azure Storage, Azure AD Licenses**. Virtual Machine Backup and Recover from a **Recovery Services Vault** using Azure **PowerShell** and **Portal**.
* Configured **Azure Traffic Manager** to build routing for user traffic Infrastructure Migrations Drive Operational efforts to migrate all legacy services to a fully virtualized Infrastructure. Configuring the **Load Balance Sets Azure Load Balancer, Internal Load Balancer** and **Traffic Manager** and worked on **Application Gateway.**
* Created **Azure** **Automation Assets, Graphical runbook, PowerShell runbook** that will automate specific tasks,
* deployed **Azure AD Connect**, configuring **Active Directory Federation Service** (AD FS) authentication flow, **ADFS** installation using **Azure AD Connect**, and involved in administrative tasks that include Build, Design, Deploy of Azure environment.
* Worked with **Azure ExpressRoute** to create private connection between Azure datacenters and On-premises Infrastructures in colocation environment.
* Experience with **Azure DNS**, including managing **DNS zones**, configuring **DNS records**, and integrating Azure DNS with other Azure services and experience with designing and implementing **Azure Firewall rules**, configuring network **traffic filtering**, and using **Azure Firewall** to secure resources in Azure.
* Monitored and responded to **security threats** by using security monitoring tools to detect and investigate security incidents and developing incident response plans to minimize the impact of security incidents.
* Experienced in **Bluegreen** Deployment and **Canary** Deployment**, Rolling** Deployment in the production. Managed **Kubernetes** cluster in the rollback and rollouts methods in the deployment strategies. Integrated **Istio** and packages with **Kubernetes** clusters for the **service mesh**.
* Validated deployments in **Kubernetes** by establishing a local development workflow that used **Minikube** and Implemented **Kubernetes** interface by creating **RESTful APIs** to read, delete, store and update bucket information on **Kubernetes Console.**
* Worked on **ingress** controller that provides reverse proxy, configurable traffic routing, and TLS termination for **Kubernetes** services. **Kubernetes** **Ingress** resources are used to configure the ingress rules and routes for

individual **Kubernetes** services.

* Containerized applications running on **Azure VMs** using the **Docker**, create the **Dockerfile** and version control to achieve Continuous Delivery goal on high scalable environment, used Docker coupled with load-balancing tool **Nginx**.
* Created cloud modules for interacting with **Azure** services which provides the tools to easily create and orchestrate infrastructure on **Azure** using **Ansible Playbooks** and **Roles** and automated cloud-native applications in **Azure** using **Azure** microservices such as **azure functions** and **Kubernetes.**
* Written **Terraform** code for **Azure Infrastructure** to build staging and production environments. Integrated **Azure Log Analytics** **with Azure VMs** for monitoring the log files, store them and track metrics.
* Developed and maintained **Perl/Shell** scripts for build and release tasks. Integrated **Maven** with **Jenkins** for the builds as the Continuous Integration process. Build **Java** code and **.NET** code on to different **Jenkins** servers as per the schedule.
* Integrated **JaCoCo** with **Jenkins** for code coverage analysis in **Java** VM based environments.

# Client: Kin & Carta, NYC, NY from Oct 2021 to Aug 2022

# DevOps Engineer

Kin and Carta plc provides digital transformation services in the United Kingdom, the United States, and internationally. The company helps its clients to invent, operate, and market digital products and services. As a part of Data Engineering team that does development of cloud platform which is highly scalable and can be used to build/deploy software products. Involved in Software integration and automation from one environment to another environment and deploying the server.

# Roles & Responsibilities:

* Managed various IaaS offerings including EC2 Instances creation using Amazon Machine Image, **RDS, S3 buckets, Glacier, CloudWatch, CloudTrail, CloudFront, SQS, SNS,** and **Route 53.**
* Designed roles and security policies for new users using **AWS Identity and Access Management** (IAM). Using IAM roles and edited policies for users to manage the resources.
* Set up live alert system using messaging queue such as **Kafka**, as well as providing streams of API for real time connectors for easy integration with **AWS**.
* Implemented strategies to transfer resources using **Service Migration Service**. Also created **CloudFormation templates** for provisioning resources.
* Used Amazon **RDS** to perform basic Database Administration and managed networking using **Security Groups**. Worked in AWS life cycle management and later pushed the data to **Glacier**.
* Worked on Auto Scaling for **EC2** instance by providing high availability at the lowest feasible cost. Also created plans based on application load metrics and **CloudWatch**.
* Configured and deployed several hypervisors and **VM’s** running Open stack for **DevOps**, testing and production environments. Improved team performance and accelerated release cycle accelerate delivery of new features and increase overall product qualities.
* Experience in creating microservices and push the **docker containing images** to the private docker registry and worked on docker containers to create images for application.
* Managed **Kubernetes** charts using **Helm** and created reproducible builds of the **Kubernetes** applications, provide a set of configuration parameters to customize the deployments.
* Managed local deployments in **Kubernetes**, creating local cluster and orchestrate the deployment, load management of **Docker Containers** with multiple namespace versions. Using **Kubernetes** modules in AWS created cloud formation templates into **S3 bucket**.
* Implemented a production ready, load balanced, highly available, fault tolerance **Kubernetes** infrastructure and created **Jenkins** jobs to deploy applications to **Kubernetes Cluster**. Involved in managing **Kubernetes** manifest files and release of **Helm** packages.
* Experience using **Ansible** as a configuration tool and using **YAML** to develop **Ansible playbooks** to deploy infrastructure and deploy playbooks on target computers to reduce downtime.
* Configure **GitLab** masters and slaves on multiple machines and integrated **Git** with **GitLab pipelines** to automate builds using **triggers** such as **pull requests**, **tags** and **commits** for building **CI/CD pipelines**.
* Setting up Cloud watch to monitor the cloud infrastructure and used the generated metrics for analyzing the performance of the application and configured **SNS** for alerting the users on crossing the metric threshold.
* Configure and deploy **Java and J2EE** applications into application servers such as **WebLogic** and **Apache Tomcat**

and troubleshoot issues encountered during production.

* Built and managed **Nagios** log server for network device log collection, network device log visualization, **Nagios Network** analyzer for net flow collection and analysis of **IP** transactions.
* Extensive experience with **Splunk** searching and reporting modules, **Knowledge Objects**, **Administration**, **Clustering** and **Forwarder Management**, **Visualization**, **Alerts**, **Reports**.
* Involved, designed & managed **JIRA/Confluence** queries, dashboards for metrics reporting for various team.
* Used **Jira** as a **bug tracking** tool by triggering the issues and distributing the issues to developers to fix it. Created

# workflows, custom screens and custom fields.

**Environments**: AWS, Azure, Kafka, Terraform, Docker, Kubernetes, Ansible, GitLab CI, Maven, Git, Selenium, JFrog, Bitbucket, NodeJS, Nagios, Spark, Oracle, Cassandra, WebLogic, Apache Tomcat, Groovy, Java, bash, Python, Shell, Jira etc.

**Cognizant Technologies, Hyderabad, India Feb 2020 to Jul 2021**

**Senior Technical Associate**

I was part of Analytics team, and I was responsible for build and automation process for continuous deployment. Maintaining web server, integrating source, control systems, and building software with open-source components and dependencies**.**

# Roles and Responsibilities:

* + Highly Involved into **Data Architecture** and **Application Design** using **Cloud** and **Big Data** solutions on **Azure**.
  + Automated the build process in order to streamline the **multi-platform**, build process and eliminate **build errors**, developed automated testing after each build.
  + Automated the build and release process management using Jenkins and Apache Maven in different Scenarios.
  + Maintained development infrastructure including Nexus artifact repository, Bamboo CI server, JIRA.
  + Managed branching, merging, tagging and other source control tasks in Git.
  + Performed configuration and automation of the build process for continuous integration and nightly builds.
  + Developed an effective build automation, continuous integration and test environment that reduced integration issues and improved code quality.
  + Responsible for working with the external Release Management team to ensure deployment and activation notices were properly performed.
  + Collaborated with QA and Development teams to identify needs and establish priorities. Troubleshooting
  + build breakages, tools and setting up of build servers in a timely manner.
  + Thoroughly documented release procedures, and new build processes in Confluence program. Integrated
  + JIRA and Jenkins with regards to Release Notes creation and updates.

**Environments:** AWS, SVN, Maven, Nexus, Jenkins, Chef, Terraform, Python, Shell, Bash, Ruby, Perl script, Nagios, Splunk, Bugzilla, Service Now etc.

# Tech Mahindra, Hyderabad, India Mar 2018 – Sep 2019

# Technical Associate

# Roles & Responsibilities:

* Setting up virtual machine for clients by installing **virtual machines** in their systems and besides that handling datacenter power planned maintenance and upgradation activities.
* **Created virtual machines** (**VMs**) and installed Linux and Windows operating systems according to the client's needs, as well as providing OS support.
* Within the **Linux** and Windows environments, configured web servers such as **Apache** with Tomcat servers and installed all dependencies and environmental settings.
* Used **SCP servers** to deploy Java web application across multiple webservers in the **Tomcat** and **War** files.
* Maintained system firewall rules and resolved frequent **OS** and network issues in the servers to accept and prohibit network traffic.
* Troubleshooted **Linux** and **Windows** server hardware, network, storage, file system, and application installation difficulties.
* Managed system routine backups, **scheduling jobs**, enabling **cron jobs**, enabling system loggings and network logging of servers for maintenance and examining daily traffic logs and direct reports from the end user.
* Worked closely with developers to answer technical inquiries or resolve difficulties with server-side performance, as well as assisting with **Linux-based program** installation and debugging.
* Daily system monitoring was performed to ensure the integrity and availability of server resources.

**Environment:** VMWare, ESXI, Linux, Windows, Shell, Apache Tomcat, War, Jar, TCP/IP, Confluence, Siebel CRM, SMP, BRM, SCP

TekWave Solutions LLC, Hyderabad, India **Feb 2015-Feb 2018**

**BUILD & RELEASE ENGINEER**

**Roles and Responsibilities:**

* Migrated out core repository from **SUBVERSION** to **GIT**. In this process, I was involved in individually migrating all the codebase from **subversion** to **GIT** ensuring that the health of our builds is not affected. Performed high-level merges of branches, codebases.
* Created and maintained **continuous Integration (CI)** and **Continuous Deployment (CD)** using tools **Jenkins/Bamboo** over different environments to facilitate an **agile** development process which is automated enabling teams to safely deploy code repeatedly.
* Worked on update and merge password authentication issues in **Jenkins** and **Jira** is involved in implementing **Atlassian Tool Suite** (**Jira, Jenkins**) especially for the issue tracking application (**Jira**).
* Connected continuous integration system with the **GIT**version control repository and continually build as the check-

in’s come from the developer. Integrated **GIT** into **Jenkins** to automate the code check-out process. Used both **GIT**

and **BIT bucket** source control systems to manage code.

* Experience in writing **Ansible playbooks** for installing **WebLogic** and **WebSphere** application and Managed **Nexus**
* **Artifactory** repositories to store **EAR, WAR, JAR** snapshots and dependencies.
* Involved in editing the existing **ANT/MAVEN** files in case of errors or changes in the project requirements.
* Worked on Setting up **puppet** master, client and wrote scripts to deploy applications on Dev, QA, production environment.
* Development of **Puppet modules** with **Jenkins** for continues integration and continues deployment of managed products, and related services.
* Participating in configuring and monitoring distributed and multiple platform servers using Puppet. Used **Puppet** server and workstation to manage and configure agents.