

# K Chandra Sekhar

Phone: +91 9390718326

Chandu.devops2828@gmail.com

---

## Professional Summary:

Over 4+ years of professional experience as a **DevOps Engineer** - Build and Release Engineer in Automating, Building, Deploying, Managing, and Releasing of code from one environment to other environment and maintaining Continuous Integration, Delivery, and Continuous Deployment in multiple environments like Developing, Testing, Staging & Production.

- As a DevOps Engineer worked on Automating, Configuring and Deploying instances on **AZURE, Data centers**.
- Experience in deploying, configuring and administering **NoSQL** Databases in **AWS/GCP** Cloud platform, MongoDB Atlas & On-prem, specifically in **MongoDB, Redis, Elasticsearch, Memcached, Amazon Elastic Cache, Neo4j**.
- Experience in deploying, configuring and administering RDBMS database PostgreSQL (EDB) in Cloud & On-prem.
- Experience in database migrations between on-premises and cloud platform.
- Performed database backup and recovery, database performance tuning and optimization, and database security management.
- Troubleshoot and resolve database issues, including system and application-level issues.
- Expertise in Setting up scalability for application servers using command line interface for Setting up and administering **DNS** system in **AWS** using **Route53** Managing users and groups using amazon Identity Access Management (IAM).
- Experience in migrating On-premises applications to the cloud and orchestrated cloud infrastructure using **Terraform**, CloudFormation and **Azure Resource Manager** (ARM) templates.
- Experience in using **Microsoft Azure** including **Azure CLI, Azure Management, Azure Portal, Azure PowerShell, Cloud Monix, Azure Management PowerShell Cmdlets, Red Gate Cloud Services**.
- Experience in **GCP** services such as **App Engine, Compute Engine, Kubernetes Engine, VM Instance, Firewall rules, Snapshots, Instance Templates, Health checks, Clusters, Storage, Workloads, Monitoring, VPC Network**.
- Experience with **Terraform** key features such as Infrastructure as code, Execution plans, Resource Graphs, Change Automation and extensively used Auto scaling for launching Cloud instances while deploying microservices and used Terraform to map more complex dependencies and identify network issue.
- Expertise in creating clusters using **Kubernetes**, creating pods, Replication controllers, Deployments, Labels, Health checks and ingress by writing **Ruby** scripts and hands on experience in building and deploying the application code using CLI of Kubernetes like **kubectI** and **kubelet**.
- Experience in working with **Kubernetes** to automate deployment, scaling and management of web Containerized applications and Integrated Kubernetes with Registry, networking, storage, security and telemetry to provide comprehensive infrastructure and orchestrate containers.
- Experience in configuring **Docker File** with different artifacts to make an image and using **Ansible Playbooks** deployed those **Docker Images** to different servers for running the applications on containers.

- Experience in setting up **Jenkins** as a service inside the **Docker Swarm** cluster to reduce the failover downtime to minutes and to automate the Docker containers deployment without using Configuration management tool.
- Experience in working on Jenkins by configuring and maintaining in Continuous Integration (CI) and for End to End automation for all build and deployments. Involved in writing **Groovy Scripts** for building CI/CD pipeline with **Jenkins file, Terraform scripts** and **Cloud Formation Templates**
- Experience on **Maven** to create artifacts from source code and deploy them in Nexus central repository for internal deployments.
- Experience in installing and configuring the application and web servers like **Apache, Nginx, Tomcat, JBoss, WebSphere, Web Logic** and deployed several applications on these servers.
- Expertise in **Shell, Perl, Ruby, Python** for Environment Builds and Automating Deployment on **WebSphere, Web Logic** Application Servers.

## Technical Skills

<b>Version control tools</b>	GIT, SVN.
<b>Cloud Technologies</b>	Microsoft Azure, AWS, GCP,
<b>Build Tools</b>	Ant, Maven, Gradle, MS Build
<b>Configuration Tools</b>	Ansible, Chef.
<b>CI and CD Tools</b>	Jenkins, Bamboo, VSTS.
<b>Languages and Scripting</b>	Python, Ruby, Shell.
<b>Networking</b>	HTTP/HTTPS, FTP, NFS, SMB, SMTP, SSH, NTP, TCP/IP, NIS, DNS, DHCP, LDAP, LAN, WAN.
<b>Web/Application Servers</b>	Web logic, Web Sphere, Jboss and Apache Tomcat
<b>Operating Systems</b>	Linux (SUSE, CentOS, RHEL, Ubuntu), UNIX, Windows
<b>Containerization &amp; Orchestration</b>	Docker, kubernetes, Terraform
<b>Monitoring Tools</b>	Nagios, Splunk, ELK
<b>Database</b>	Oracle11g, SQL, MySQL, DynamoDB, NOSQL
<b>Virtualization</b>	VMWare ESXi, Virtual Box, Vagrant.

## Professional Experience:

**Mindtree Bangalore**

**Role: Cloud/DevOps Engineer**

**May 2018 –Till Date**

### Responsibilities:

- Creating automated build and release environment using **CI/CD Tools like Jenkins & Chef**.
- Created chef recipes to automate the deployment process.
- Designed and configured **Azure Virtual Networks (VNETs)**, subnets, **Azure network settings**, DHCP address blocks, DNS settings, security policies and routing.

- Extensively involved in infrastructure as code, execution plans, resource graph and change automation using **Terraform**. Managed **Azure infrastructure** as code using **Terraform**.
- Azure Storage development and design utilizing Blobs, Pages, Queues, Tables and VM's.
- Established connection from **Azure to On-premise** datacenter using Azure Express Route for Single and Multi-subscription connectivity.
- Worked in Private Cloud and Hybrid cloud configurations, patterns, and practices in Windows Azure and SQL Azure and in **Azure web and database** deployments.
- Build and automate infrastructure deployments in Azure for creation of subscription, Storage Account and tables using Windows PowerShell.
- Setup Docker to automate container deployment through Jenkins and Dealt with Docker Hub, making Docker Images and taking care of various Image essentially for middleware establishments and space setups.
- To achieve Continuous Delivery goal on high scalable environment, used Docker coupled with load-balancing tool Nginx.
- Developed and implemented a migration tool to automate projects creation and migrated projects and data from Plan View and Excel to Azure SQL.
- Leveraged VNET system routes and underlying route table that holds Local VNET Rules, On-premise Rules, Internet Rules and IP Forwarding as design basis.
- Experienced on creating **Azure VM**, Cloud Services and Storages by using **Azure Power-Shell** Script.
- Implemented a Continuous Integration and Continuous Delivery (CI/CD) pipeline with Jenkins and GitHub and Azure Container Service
- Installed and administrated **CI/CD tools** like Jenkins for managing weekly Build, Test and Deploy chain, GIT with Dev/Test/Prod Branching Model for weekly releases.
- Convert multiple onsite Data Centers to Virtual Infrastructure using Microsoft Hyper-V reducing physical server footprint, while improving management, efficiency and performance.
- Good working experience in **Azure App Service**, **Azure Logic apps**, Service Bus, Document DB, Azure Cosmos DB and SQL Database
- Configure ADFS and AD for on-Premise domain, configure **Azure VPN** for Virtual Network Creating Azure Backup vault and protecting required VMs to take the VM level backups.
- AD sync between On-Premise & Azure AD, manage users and groups and monitor AD Connect
- Configuring **Azure backup** service for taking backup of **Azure vm** and data of on premises to Azure.
- Administered **Jenkins-Jira-GitHub** Automation by using Python scripting, Jira API and Webhooks.
- Generated keys for CA signed SSL certificates, converted CRT file to PKCS12 & JKS followed by modifying Jenkins config file to enable HTTPS port and configured PORT forwarding using iptables to forward 8080 to 443.
- Configured SonarQube scanner 7.7 for JAVA projects using JACOCO plugin and also for python projects using coverage.py tool. Also, Modified python test files to export coverage.xml from unit tests.
- Used Python SDK BOTO3 for AWS functions, integrated them to Automate most of the complex task's through Ansible.
- Integration of Ansible Dynamic Inventory for reusable Infra setup by Terraform from its TF state file or on AWS cloud based on the Tag names.
- Pass run-time secrets to the deployment code through Ansible Vault and developing Python snippets for supporting configurations.

- Worked on **Azure Site Recovery** and Azure Backup- Installed and Configured the **Azure Backup** agent and virtual machine backup, Enabled Azure Virtual machine backup from the Vault and configured the ASR and created multiple Virtual Machines using Power Shell scripting for the testing purposes.
- Created multiple resources in **Microsoft Azure**, including **Resource Groups**, configured **Azure Virtual Networks (VNETs)**, **subnets**, Site to Site connectivity, Storage Accounts, and other resources. Performed health check of existing SCCM structure managing servers in both subdev and prod subscriptions.
- Involved in **migration from on-premises to Azure Cloud** and created custom sized images for VM's and configured **Azure Backup Service** for taking backup of Azure VM and data of on premise to Azure.
- Involved on migrating SQL Server databases to SQL Azure Database using **SQL Azure Migration Wizard** and used **Python API** to upload agent logs into Azure blob storage and in migration from on-premises to Azure Cloud and created custom images for VM's and Configured Azure Backup Service for taking backup of Azure VM and data of on premise to Azure.
- Implemented **Kubernetes** to deploy scale, load balance and manage docker containers with multiple name spaced versions and implemented a production ready, **Load balanced, Highly available, Fault tolerant Kubernetes infrastructure**.
- Configured **Kubernetes Services type load balancer and Cluster IP** to expose UI based application and migrated cluster CNI from Flannel to Kube Router to support Kubernetes network policies.
- Deployed and configured **Prometheus** to monitor **Kubernetes** nodes with node-exporter, monitor Kubernetes API Deploying the OpenTelemetry Operator to Kubernetes cluster, and automatically instrument and collect Telemetry data for the application
- Worked on Docker service for our **Docker images** and worked with Docker container networks communications using Docker Weave rolling updates to implement zero downtime PROD deployments and worked with **Docker Trusted Registry** as repository.
- Worked on **Docker-Compose**, Docker-Machine to create Docker containers for Testing applications in the QA environment and **automated the deployments, scaling and management of containerized applications** across clusters of hosts using Kubernetes.
- Automated configuration management and deployments using **Ansible playbooks** and **YAML** for resource declaration. Created roles and updated Playbooks to provision servers by using Ansible.
- Experienced in various SDLC project phases: Requirement/System gathering, Requirement/System Analysis, Test plans, Coding, Code review, Testing.
- Creating different work items like Feature, Epic, Bugs, issues, etc., and linking with VSTS as per the requirement.
- Creating **Azure repos** using Git and TFVC and uploading VSTS content to Azure repos.
- Experience in VSTS, TFS, Gated Check - ins, Build Definitions, Release Management, PowerShell.
- Planning and implementation of data and storage management solutions in Azure (**SQL Azure, Azure files, Queue storage, Blob storage**). Implementing scripts with **PowerShell** for Runbooks.
- Working with **Azure CI/CD** Build and Release pipelines. Worked on CI/CD for .Net and MySQL Applications.
- Creating dashboards in VSTS for CI/CD pipelines, Work items and bugs.
- Resolved Merge Conflicts, configured triggers and queued new builds within the release pipeline.
- Creating and maintaining Artifacts. Create and publish NuGet packages and maintain the NuGet infrastructure that several teams use at build time.

- Created manual Test Cases to check that each of the deliverables meet user's requirement.
- Monitor Disk Space and space as needed in LVM. Installation and configuration of **Apache**, Tomcat on Linux.
- Automated Continuous Integration builds, deployments and unit tests across multiple different environments (DEV, QA, Training, Production) each constituting different types of servers (DB, App, Web) and different number of servers of each type (for load balancing and such) using VSTS Build, Power Shell, and MS Build, MS Deploy.
- Configured **Hybrid Cloud** setup on GCP using **VPN** with two different regions and used Google Cloud console to create and manage GCP and GKE workloads.
- Used **GCP App Engine** for deploying and scaling web applications and configured and deployed instances on GCP environments and Data centers, also familiar with **Compute**, **Kubernetes Engine**, **Stackdriver Monitoring**, **Elastic Search** and managing security groups on both.
- Implemented **AWS Security Groups** which acted as **virtual firewalls** that controls the incoming traffic and configured the traffic allowing reaching one or more AWS EC2 instances Virtual private cloud (VPC), subnets, **Internet Gateways**, **S3 bucket** and **route53** under Amazon Cloud Environment.
- Setting up **scalability** for application servers using command line interface for Setting up and administering **DNS** system in **AWS** using Route53 Managing users and groups using amazon identity access management (IAM).
- Created **Python scripts** to totally automate **AWS** services which includes **web servers**, **ELB**, **Cloud Front distribution**, **Database**, **EC2** and **database security groups**, **S3 bucket** and **application configuration**, this script creates **stacks**, **single servers** or **joins web servers to stacks**
- Provided highly durable and available data by using **S3 data store**, **Versioning**, **Lifecycle Policies**, and create **AMIs** for mission critical production servers for backup.
- Created Clusters using **Kubernetes kubectl** and worked on creating many **Pods**, **Replication controllers**, **Services**, **Deployments**, **Labels**, **Health Checks** and ingress by writing **YAML** files and used to manage containerized applications using its nodes.
- Executed Kubernetes locally with **Minikube**, created local clusters and deploy application containers and **Config Maps**, Services and deployed application containers as Pods.
- Initiated **Microservices** application through **Docker** and **Kubernetes Cluster formation** for scalability of the application, creation of **Docker Images** to upload or download in and out from the **Docker Hubs**.
- Worked on end to end setup of the Artifactory pro as a **Docker** Container with a secure private **Docker Registry** and local Docker repositories for storing the built **Docker Images**.
- Installed **Docker Registry** for local upload and download of Docker images and from Docker Hub and created Docker files to automate the process of capturing and using the images.
- Achieved **Continuous Delivery** goal on high scalable environment, used **Docker** coupled with **load-balancing** tool **Nginx** and virtualized the servers using Docker for the test environments and dev-environments needs, also configuration automation using Docker containers.
- Installed and Configured **Chef Server**, Workstation, Client servers and nodes. Written several **Recipes**, **Cookbooks** in Chef to automate the environment provisioning, Middleware Infrastructure Installations.
- Worked and configured **Chef server**, **Chef-solo** along with creating **Chef Cookbooks** and implemented latest releases of Chef- Solo, Compliance, Habitat and written Chef Recipes to install and configure **Nagios** for monitoring Infrastructure.

**Education:**

**MBA (Finance) Avanthi Engineering Collage 2018**

**B.COM (Computers) -2015-Visakhapatnam Andhra Pradesh**