

SAMRACHHIKA M



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Professional Summary

*Skilled 7+ years DevOps Engineer with sound knowledge on the principles and best practices of **Software Configuration Management (SCM)** in **Agile, Scrum, and Waterfall** methodologies along with high focus in infrastructure security and cloud services such as **AWS and Azure**. Deep experience with **Configuration Management** tools like **Ansible, Continuous Integration and Continuous Delivery (CI/CD)** tools as **Jenkins and Containerization** solutions, **Docker and Kubernetes**.*

- Extensive Azure experience, including: **Azure Data Factory, Resource Groups, Express Route, Event Hub, Azure VMs, Virtual Networks, Log Analytics, Azure Synapse, Azure Functions, Application Gateways, Auto-Scaling, Azure DevOps, Azure DevOps Pipelines.**
- Experienced in designing **Azure Resource Manager (ARM) Template** to automate provisioning and resource deployment process.
- Extensive experience in designing custom build steps using **PowerShell** and developed **PowerShell scripts** and **ARM templates** to automate provisioning and deployment process.
- Created and maintained fully automated **CI/CD pipeline** using **Azure DevOps (VSTS, TFS)** in both cloud and on-premises with **Git, Docker, Maven** along with **Jenkins plugins**.
- Elicited and managed the customer feedback lifecycle to test the underlying software more flexibly without relying solely on formal test cases using **Azure DevOps Test Plans**.
- Responsible in deploying Web Apps, monitoring via **Azure Application Insights** and creating Web-Jobs.
- Migrated assets from **Team Foundation Version Control (TFVC)** to **Azure DevOps Git**.
- Engaged in frequent upgrade of Azure DevOps **CI/CD** for Deployment Projects and Release Pipelines using CI/CD to Prod and Non-Prod environments.
- Configured CI/CD Pipelines as Code with **YAML** in Azure DevOps to simplify the process of defining build and release tasks.
- Configured and implemented high-performance, scalable storage blobs and **Azure files** - Created Storage accounts, Configured the **Content Delivery Network (CDN)**, custom domain, Managing access and storage access key
- Proficient in writing **Infrastructure as a code (IaC)** in **Terraform, Azure resource management (ARM)**.
- Worked extensively with **Prometheus** and **Grafana** monitoring to eliminate the number of alerts in a system by prioritizing alerts only for major issues by watching over hundreds of microservices.
- Actively involved in managing and monitoring of AWS cloud infrastructure on **EC2, Load Balancer, Lambda, S3, RDS**, including backups, patches, and scaling.
- Strong experience with **AWS IAM** service in creating and integrating **IAM users and groups**, defining **Roles and Policies** and **Identity providers**.

- Automated build and deployment using **Jenkins** slaves for parallel job execution and to speed up production processes.
- Hand on experience in using **Jenkins** as a **Continuous Integration tool** for creating new jobs, managing required plug-ins, build trigger, build system, and post build actions, scheduled automation builds.
- Used Terraform to deploy the infrastructure necessary to create development, test, and production environments for software development project and used **Terraform graph** to visualize execution plan using the graph command.
- Experienced in writing reusable **Terraform templates** to setup AWS resources EKS, VPC, EC2, AMI, Images, Storages, VM Scale sets and Azure pipelines to automate the deployment procedure.
- Experience in configurations and automating deployment of microservices on **Docker Swarm Cluster** by pulling **Docker images** from the private **Docker Registry**.
- Involved in creating manual and customized Docker images or modifying base images from existing environment according to development team's needs. Also, competent in **Networking Docker Containers** including Bridging, Routing, and troubleshooting networking issues.
- Familiar with using **Kubernetes** to deploy scale, load balance, and manage Docker containers with multiple names spaced versions using **Helm charts**.
- 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, ConfigMaps, Selectors, Services**.
- Maintained logs of docker containers in **Kubernetes** for finding and fixing issues ensuring **Pods** are running.
- Worked with build tools like **Maven and Ant** for the building of deployable artifacts.
- Experience on **Ansible** and **Ansible Tower** to automate repetitive tasks, to deploy critical applications quickly, and proactively manage the changes and wrote several **Ansible playbooks** to manage web applications.
- Skilled in installing and configuring the **Ansible management node** to deploy the configuration to the end user nodes.
- Experience in configuring and managing **Chef master server**, upload cookbooks through **knife**, test recipes in Kitchen and other chef tools like Supermarket, Food critic and Inspect and building workflows with **Chef Automate**.
- Proficient in configuration management tool **Ansible, Tower, Playbooks, Inventory files** to setup servers, deploying software, orchestrate fault-tolerance updates and delivery incorporating **Ansible Tower** for access control.
- Performed all necessary **Git and GitHub** support for different projects and expert in creating branching strategies to maintain Git repositories and permissions.
- Proficient with **Shell, Python, PowerShell, Json, YAML, Groovy** scripting languages.
- Worked on configuration, deployment, and troubleshooting of **HTTP, DNS, TCP/IP, VLANs, Apache, Nginx**.
- Experience in System Administration, System Builds, Server builds, Installs, Upgrades, Patches, Migration, Troubleshooting, Security Backup, Disaster Recovery, Performance Monitoring and Fine-tuning on **UNIX (Red Hat Linux) Systems**.

Technical Skills

Cloud	AWS, OpenStack, Azure, GCP
Configuration Management Tools	Chef, Ansible
CI/CD tools	Jenkins, Azure DevOps
Build Tools	Maven, Ant
Container Tools	Docker, Kubernetes
Version Control Tools	Git, CVS, SVN, TFS, BitBucket
Monitoring Tools	Nagios, Splunk, CloudWatch, JIRA, Grafana and Prometheus
Databases	MySQL, MS Access, DB2, NoSQL (MongoDB, DynamoDB), Cassandra
Web Servers	Apache HTTP, Apache Tomcat, Nginx
Networking/Protocol	TCP/IP, NIS, NFS, DNS, DHCP, WAN, SMTP, LAN, FTP/TFTP
Operating Systems	Ubuntu, CentOS, RedHat Linux, Windows
Scripting	Python, YAML, Ruby, Bash, Shell, PowerShell, JSON, Groovy

Certifications

- **Microsoft Certified**, Azure DevOps Engineer Expert
- **Microsoft Certified**, Microsoft Azure Administrator Associate
- **Linux Foundation**, Kubernetes Administrator

Experience

AZURE CLOUD INFRASTRUCTURE ENGINEER | COX ENTERPRISES | ATLANTA, GA AUGUST 2019 – PRESENT

- Configured **Azure Virtual Networks**, subnets, DHCP address blocks, Azure network settings, DNS settings, security policies and routing. Also, deployed Azure IaaS virtual machines and PaaS role instances into secure Virtual Networks and subnet.
- Used **Azure Resource Manager (ARM)** to deploy, update, or delete all the resources for your solution in a single, coordinated operation.
- Designed, configured, and deployed **Microsoft Azure** for a multitude of applications utilizing **Blobs**, **Azure Data Factory**, **Resource Groups**, **HD Insight Clusters**, **Azure SQL**, **Cloud Services**, and **Databricks** focusing on high-availability, fault tolerance, and auto-scaling.
- Managed several types of objects like secrets, certificates, and storage account keys, in addition to cryptographic keys using **Azure Key Vaults**.
- Integrated **Azure Log Analytics** with **Azure VMs** for monitoring the **log files**, store them and track metrics.
- Worked with **Azure DevOps Artifacts** to provide integrated package management with support for **Maven**, Python and **NuGet** package feeds from public or private sources.
- Created **CI/CD** pipelines for .NET, python apps in **Azure DevOps** by integrating source codes GitHub, VSTS, and **artifacts**.
- Engineered data marts in **Azure Databricks Lakehouse** for data analyst team.
- Supporting advance test management solutions for customer feedback, UAT, Automation testing, and manual testing with **Azure DevOps test plans**.

- Implementing **Azure Stream Analytics** for data analytic purposes with data stream modeling for data warehouse consumption.
- Creating and provisioning agent pools to simplify the build release and sharing of machine in Azure DevOps.
- Provisioning servers/instances using infrastructure as code such as **Terraform** and **CloudFormation**.
- Deploying **Windows** and **Linux** based **Docker** containers with popular container orchestrators like **Kubernetes** and **DCOS** provisioned by the **Azure Container Service** and integration of container registries, specifically **Docker Hub** and the **Azure Container Registry** into DevOps workflows.
- Creating **Pods** and services using Master architecture of **Kubernetes** and developing microservices build with **Docker** container using **Docker** pipeline plugin.
- Leveraging **Python** for creation and maintenance build jobs using **Kubernetes** to deploy services.
- Working on **Kubernetes** to manage containerized applications using its nodes, **Configuring Maps**, selector services and deployed application containers as **Pods**.
- Incorporated **Azure Kubernetes Service (AKS)** to easily migrate our existing apps to containers and run them and also to improve security and speed of development process.
- Utilizing **Calico**, to provide **secured network** connectivity to the containers. Built and deployment automation using **Docker**, **Kubernetes** containers.
- Assembling **Kubernetes Clusters** for running and pushing microservices into production with Kubernetes backed infrastructure. Development of automation of **Kubernetes clusters** via playbooks in **Ansible**.
- Creating **Kubernetes** cluster with objects like Pods, Deployments, Services and Config Maps and created reproducible builds of the **Kubernetes** applications, managed **Kubernetes manifest** files and Helm packages and implemented Kubernetes to deploy scale, load balance, scale and manage **Docker containers** with multiple namespace versions.
- Developing **Ansible** playbooks, inventories, and custom **playbooks** in **YAML**, and encrypted the data using **Ansible Vault** and maintained role-based access control by using **Ansible Tower** and Implemented IT orchestration using **Ansible** to run tasks in a sequence which can work on different **servers**.
- Integrating Playbooks to automate **Ansible** servers using **YAML** scripting for repeatable deployments of multi-tier applications, **artifacts**, and services to **Docker**.
- Implementing **Python** Scripts using stranded libraries for getting all the agent logs (Inventory, Remote connections, Network usage and performance counters) from the flavors of **LINUX**.
- Configuring post-commit & pre-push hooks using **Python** in **Bitbucket** repositories. Resolved merging issues during rebasing & re-integrating branches.
- Working on testing, evaluation & troubleshooting of **MongoDB** & **Cassandra NOSQL** database systems & cluster configurations to ensure high availability in various crash scenarios.
- Working on **Nagios** and **ELK** for server monitoring, also used Net Scalar and monitoring tools like **Nagios** for Load Balancing and Controlling Flow of Traffic.
- Experience in **JIRA** for ticketing and as well as defect tracking system and configure various workflows, customizations and plug-ins for **JIRA** bug/issue tracker, integrated Jenkins with JIRA, GitHub, Maven.
- Build **Data Sync** job on Windows **Azure** to synchronize data from **SQL 2012** databases to **SQL Azure**.
- Staged installation, configuration & administration of Microsoft **Windows 2012 R2** Servers and **Microsoft Visual Studio**, used **GitHub** or source control for data collection, reporting, and project tracking.

- Analyzing, troubleshooting, and resolving **RedHat Linux and Server** hardware, **Network problems** in a production server environment.
- Developing **PowerShell** scripts to automate the project creation, setting permissions for users and groups.

SR. DEVOPS ENGINEER/AZURE ENGINEER | WELLS FARGO | RALEIGH, NC MARCH 2017 – JULY 2019

- Configured and provided recommendation for the **Azure** policy leading to security audit/prevention and **Azure Active Directory** Privilege management, which will allow just in time privilege access escalation for various **PAAS** services.
- Ingested data into Azure through Azure Data Factory in batches using Apache **Kafka, Event Hub, or IoT Hub** for big data pipelines.
- Experienced working on **Azure Fabric**, microservices & Docker Containers in Azure along with additional ability to create scripts using Azure PowerShell during automation and built-in process.
- Used **Azure Data Lake Storage (ADLS)** for storing full & incremental data from all sources and used **Azure Data Explorer (ADX)** to import datasets for further processing.
- Involved in managing **Private Cloud** and **Hybrid cloud** configurations and practices in Windows Azure, SQL Azure, Azure Web and Database deployments.
- Designed and integrated **Pivotal Cloud Foundry (PCF)** on Microsoft Azure and deployed PCF using Cloud Foundry push and urban code deploy.
- Knowledge in implementation of **auto-scaling** use cases using **OpenStack** components such as Heat and Ceilometer to check stack and alarm present in tenants.
- Worked with **Kubernetes Ingress** to set routing rules to govern services access by external users running in a Kubernetes cluster.
- Created projects and services for **load balancing** and adding them to Routes to be accessible from outside in Kubernetes and creation of **Pods** through new application and control the scaling of pods, troubleshooting pods through **SSH** and **logs** using **Kubernetes**.
- Integrated container systems like **Docker** and container orchestration, **Kubernetes** to deploy scale, load balance, scale and manage docker containers with multiple name spaced versions.
- Integrated **Docker** container-based test infrastructure to **Jenkins CI** test flow and set up build environment integrating with **Git** and **JIRA** to trigger builds using **Web Hooks** and **Slave Machines**.
- Worked with various components of **Chef** including Chef Server, workstations, Nodes, configurations of **chef-client** and written cookbooks and recipes for Chef and assigning roles to nodes.
- Developed multiple **Chef Cookbooks** from scratch and implemented automation with Vagrant, Chef for application testing, deployment, and development.
- Administered **Jenkins** continuous integration server installation and configuration to automate application packaging and deployments by integrating it with **Git, Maven, Chef, JIRA** and Email servers.
- Automated **CI/CD** with **Jenkins**, build-pipeline-plugin, **Maven, Git** to set up Jenkins master/slave nodes and distribute builds on slave nodes.
- Managing to Set up **Jenkins** server and build jobs to provide Continuous Automated builds based on polling the **Git** source control system during the day and periodically scheduled builds overnight to support development needs using **Git**.

- Implemented **Jenkins** Workflow and Plugins for repeatable deployments of multi-tier applications, **artifacts**, and services to **Docker**.
- Developed build and deployment scripts using **Maven** and initiated them using Jenkins to move from one environment to other environments.
- Managed **Maven** pom.xml files and scripts for repository management tools **Artifactory** and **Nexus**.
- Developed automated jobs to migrate **SVN repository** to multiple **GitHub** repos with history and created one-way bridge to update Git contents and Automated merges to remote repository.
- Involved in monitoring System/Application Logs of server using **Splunk** to detect Prod issues.
- Involved in setting up **JIRA** as defect tracking system and configured various workflows, customizations, and plugins for the JIRA bug/issue tracker.
- Managed deployment procedures using middleware like **Apache Tomcat** by creating deploy scripts and setting for the Production Release.
- Developed automated processes that run daily to check **disk usage** and perform cleanup of file systems on LINUX environments using **shell scripting**.

**DEVOPS ENGINEER | PARK NATIONAL BANK | CHARLOTTE, NC
SEPTEMBER 2015 - FEBRUARY 2017**

- Designed highly available, cost effective and fault tolerant systems using multiple **AWS EC2 instances**, **Auto Scaling**, **AWS Elastic Load Balance** and **AWS Amazon machine image (AMIs)**, **DNS mapping** with subdomain using Route 53.
- Constructed roles and groups for users and resources using **AWS Identity Access Management (IAM)** and implemented **Multi-Factor Authentication (MFA)** on externally available servers.
- Migrated in-house DB to **AWS RDS** for high availability clustering, used read-replica data stream so that **RDS** automatically creates a primary DB instance and synchronously replicates the data to a standby instance in a different **Availability Zone**.
- Exported and stored DB snapshots (manual and/or automated system snapshots) in **S3** to make it available during Disaster Recovery.
- Configured **CloudTrail** with **CloudWatch Logs** to monitor trail logs and to get notified when specific activity occurs.
- Inscribed **Shell** and **Ruby Scripts** to manage CI/CD pipeline tools on rapid-provisioning and life-cycle management for Ubuntu Linux using **Amazon EC2**.
- Authenticated **Jenkins with AWS Lambda** to send data from one app to the other.
- Involved in setting up the backup server for **Jenkins** and prepared disaster recovery plans for **Jenkins**.
- Implemented building tools such as **Ant** and **Maven** to automate and enhance the overall operational environment.
- Integrated **Git** and **Maven** with **Jenkins** to implement the continuous integration (CI) process.
- Configured Nightly Builds using **SCM** polling option to ensure an updated version of artifactory generated in **NEXUS**.
- Configured **GitHub** web hooks to Java code repositories hosted in **GitHub** enabling automatic build triggers for a code commit with **JIRA** ticket preventing manual triggering options.
- Managed build failures by identifying the root cause for build failure quickly by checking the console output for stage at which the build failed.

- Implemented and configured **Nagios** for continuous monitoring of applications and enabled notifications via emails and text messages.
- Performed WebLogic Server administration tasks such as installing, configuring, monitoring and performance tuning on Linux environment.
- Automated different workflows, which are initiated manually with Python scripts and **Linux /CentOS** bash scripting.
- Administered **RedHat Linux 4.x/5 servers** for several functions including managing Apache **Tomcat Server**, **Mail Server**, **MySQL database** and Firewalls in both development and production environments.

SYSTEM LINUX ADMIN | UNITED TEXAS BANK | DALLAS, TEXAS MAY 2014 – AUGUST 2015

- **Linux Administrator** in a large team responsible for maintaining Linux operating systems such as **RHEL, CentOS and Ubuntu**.
- Updated and automated Release reports for Change Management. Created **SVN** configuration record for builds using derived objects generated during build audit process.
- Responsible for building and releasing packages for testing. Adding servers to the domain and managing the groups and users in **Active Directory**.
- Administered **RedHat** Linux servers for several functions including managing **Apache/Tomcat server**, Mail server, **MySQL** database and firewalls in both development and production.
- Expertise in **UNIX** shell scripting and python scripts used to automate day to day administrative tasks. Involved in writing **Python, Perl**, and Shell scripts for compilation and deployment process.
- Worked in an **Agile / Scrum** development team to deliver an end-to-end continuous integration and continuous deployment in **SDLC**.
- Performed OS and vendor software patching on servers and monitored physical and virtual server performance using monitoring tools and maintained security on RHEL.
- In charge of reviewing existing manual Software Builds, developing scripts to automate repeated tasks that are more susceptible to errors and risks using **Shell** scripting.
- Deployed **Java** applications into **Apache Tomcat** Application Servers. Used Test driven approach for developing the application and implemented the unit tests using **Python** Unit test framework.
- Provided **24/7 on-call support** on Linux Production Servers.

.NET DEVELOPER | CARESOFT NEPAL JUNE 2013 – APRIL 2014

- **Developed .NET** employee management payroll system project using **C#**, bootstrap following 3 tier architecture.
- Created different business classes and interfaces **using .Net** Framework 4.0 with Object Oriented Programming Methodology.
- Designed and developed the web forms using **ASP.Net 2.0**. and used CSS in ASP.Net Pages.
- Created project repository in **Git**, branching and merging code updates.
- Configured **SMTP** mail services to make the web page more responsive to the employees.
- Utilized **SQL Server** for database to maintain data storage and processing.