# Diwakar

# DevOps Engineer

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**Professional Summary:**

* Skilled professional experience of **8 Years** in IT industry as a **Cloud DevOps**, Build and Release Engineer with Linux Systems Administrator experience in variety of cloud settings - Private, Public and Hybrid Cloud AWS, **GCP**&**Azure** platforms along with using various tools like Docker, Kubernetes, Ansible, Terraform, Argo CD, Jenkins, Git, & JIRA. Enthusiastic to work in a knowledge gaining and sharing environment.
* Experience in working with multiple Cloud platforms like **AWS,Azure and GCP** to implement the automation of manual processes using various **DevOps** tools and technologies
* Experience in working as a **DevOps Engineer**, **Build & Release Engineer**, System Administrator operations process and tools area (**Code review**, **unit test automation**, **Build & Release automation**, **SCM**, Incident and Change Management).
* Experience on AWS platform and its dimensions of scalability including **EC2, S3, Route53, ELB, EBS, VPC, AMI, SNS, RDS, IAM**, **Auto Scaling, CloudFront**, **CloudWatch, CloudTrail, CloudFormation, OPSWork, Security Groups.**
* Experience in using build tools like **MAVEN** and **ANT** for the building of deployable artifacts such as war, jar& ear from source code.
* Extensively worked with automation tools like **Jenkins**, to implement the **End-to-End Automation**.
* 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**.
* Hands on experience on Azure VPN-Point to Site, Virtual Networks, Azure Custom security, Endpoint Security, firewall, Windows Azure name resolution, Scheduler, Automation and Traffic Manager, syncingOn-premises Windows Server Active Directory to Azure AD (AAD) using Azure AD connect.
* 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.
* Experience in **migrating** infrastructure and application from **onpremise** to **Azure** and from Cloud to Cloud such as AWS to Microsoft Azure.
* Experience working on Azure Cloud services, Azure Data Factory, Azure Data Lake Analytics, Azure Data Bricks, GIT, Azure DevOps. Managing Client’s Microsoft Azure-based PAAS and IAAS environment.
* Extensive experience in **WindowsAzure** (IaaS) migrating like creating Azure **VMs**, **storage accounts, VHDs, 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.
* Hands-on experience in Configuration management with **Ansible**, writing cookbooks and playbooks to install **Apache** server, **JBoss, WordPress** for the same.
* 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.
* Used Docker in Source Code Management Workflows. Experienced in Installing, Configuring and Managing **DockerContainers, Docker Swarm, Docker Images** for **Web Servers** and **Application Servers** such as **Apache Tomcat** using **Docker** and integrated with **AmazonMYSQLRDS** databases.
* Develop an understanding of TCP/IP **Networking concepts, Routing and Firewalls**.
* Expertise in Virtualization technologies like **VMWare**, **Vagrant** and worked with containerizing applications such as **Docker**, **Kubernetes, etc.**
* Extensive involvement in Designing Azure Resource Manager Template and in designing custom build steps using PowerShell.
* Worked on Building/Maintaining **Docker** container clusters managed by **KubernetesLinux**, Bash, **GIT**, **GITLAB, Docker**, on **GCP** (Google Cloud Platform). Utilized **Kubernetes** and **Docker** for the runtime environment of the CI/CD system to build, test deploy.
* Designed and deployed a highly available and fault tolerant infrastructure on **AWS** using **terraform** modules, these module's installs a web application in public subnet and database in private subnet which can communicate using the local route table in the **VPC**.
* Skilled in monitoring servers using Nagios, Splunk, Sumo Logic for Network **Monitoring**, Resource **Monitoring**and Log Trace **Monitoring**.
* Experienced on **Ansible** to configure the servers, **deploy** software, and orchestrate continuous **deployments or zero downtime rolling updates** and automated to **build, deploy** the infrastructure.
* Expertise in migrating the existing v1(classic) Azure infrastructure into v2 (ARM),scripting and templating the whole end to end process. Migrated on-prems to Windows Azure by building Azure Disaster Recovery Environment, Azure Recovery Vault and Azure Backups from the scratch using PowerShell script.
* Experienced in Scripts like **Perl, Python, Bash, Java, Shell, Ruby, Groovy** and **YAML**.
* Experience on various testing frameworks like **JUnit**, various **Application Servers** like **WebLogic, WebSphere, JBoss and Apache Tomcat, Nginx**.
* Deployed**Kubernetes** Clusters on cloud/on-premises environments using master/minion architecture and developed **YAML** files to build services like **pods**, **deployments**, **auto-scaling, load balancers, health checks, namespaces, etc.**
* Created and automated the **Jenkins pipeline** using **groovy script** for the micro service applications and owning the Activity of Upgrading, administering, plug-in management, and User Management and Job creation in **Jenkins**.
* Worked as Point of contact for production servers and provided **24X7 support** for production Env.
* Strong experience in **System Administration**, Installation, Upgrading Patches, Configuration, Troubleshooting, Security, Backup, Disaster Recovery, Performance Monitoring and Fine-tuning on **Red Hat** Linux System.

**Technical Skills:**

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| --- | --- |
| **Operating Systems** | **Linux** (RedHat 4/5/6/7, CentOS, SUSE), UNIX [Solaris 11/10/9, HP-UX 11.23, 11.31, IBM-AIX (4.3/5.x/6.x/7.x)], Windows. |
| **Cloud Environments** | Amazon Web Services (**AWS**), Microsoft **Azure,GCP** |
| **Application Servers & Web Servers** | Apache, Tomcat, WebLogic, WebSphere, JBoss, Nginx |
| **SCM Tools** | **Git**, Subversion (SVN), Bitbucket. |
| **CI/CD & Build Tools** | **Jenkins**, Bamboo, Argo CD, Hudson,Helm,Flux, **ANT**, Gradle. |
| **Testing Tools** | Selenium,Sonarqube. |
| **Automation tools** | **Chef**, **Puppet**, **Ansible**, Cloud Formation. |
| **Container tools** | **Docker**, **Kubernetes**. |
| **Monitoring Tools** | **Nagios**, **Splunk**, Cloud watch, CA Wily Introscope, Zabbix, **ELK** (Elasticsearch, Logstash, Kibana), Dynatrace. |
| **Programming languages** | **Python** |
| **Scripting Languages** | Perl, **Python**, Go, YAML, Ruby, PHP, Bash **Shell** scripting, Power**Shell**, JSON. |
| **Bug Tracking Tools** | **JIRA**, Bugzilla, Confluence. |
| **configuration management tool** | **Terraform.** |

## Professional Experience:

**Abbvie,Chicago, IL Aug 2021 – Till Now**

**Role: . Devops Engineer**

**Responsibilities:**

* Experience on **AWS** cloud services like **EC2, S3, ELB, EBS, VPC, SQS, SNS, Red Shift, Route53, Auto scaling groups, Cloud Watch, Cloud Front, IAM** for installing configuring and troubleshooting various **Amazon images** for server migration from physical servers into cloud environment
* Created **AWS** cloud formation templates to create organization **AWS** network from scratch with customized **VPC,** subnets, **NAT** gateways, internet gateways, Route tables, **ACL’s EC2** instances, **ELB's**, security groups.
* Managed multiple **AWS accounts** with **multiple VPC's** for both production and **non-prod** where primary objectives included **automation, build out, integration and cost control.**
* Designed roles and groups for users and resources using **AWS** Identity Access Management **(IAM)** and managed **IAM** account (with **MFA**) and **IAM** policies to meet security audit & compliance requirements and managed network security using **Security Groups** and **IAM**.
* Writing **AWS Terraform** templates for any automation requirements in **AWS** services. Implemented multiple high-performance **MongoDB** replica sets on **EC2** with robust reliability. Managed and supported **AWS** Security related issues, such **IAM** and **S3** policies for user access.
* Developed and maintained highly scalable and fault-tolerant multi-tier AWS environments spanning across multiple **availability zones** using **Terraform.**
* Involved in configuration for Web apps/Function apps, V-net integration, HCM, Application gateway, App Insights, Active directory, Azure Key Vault, Encryption and Security on Azure.
* Installed **Docker** Registry for local upload and download of **Docker** images and even from **Dockerhub**. Worked closely with developers to pinpoint and provide early warnings of common build failures.
* Used to write**YAML** files in which I define multiple services of**docker** applications and used **docker compose** to launch those services in different Environments.
* Configuration of **Ansible** modules for **AWS** cloud deployment. Worked with **Ansible** playbooks for virtual and physical instance provisioning, configuration management, patching and software deployment on AWS environments through automated tools, **Ansible** / custom pipeline.
* Installed Splunk in production servers for logging purposes and built Splunk dashboards for application monitoring and used Splunk as a log monitoring tool for the Build, Test, and Deployment Environments.
* Involved in various aspects and phases of architecting, designing, and implementing solutions in IT infrastructure with an emphasis on Azure and AWS cloud.
* Created and configured management reports and dashboards in Splunk for application log monitoring.
* Created Azure Automation Asset Graphical runbooks, PowerShell runbooks that will automate specific tasks, deployed Azure AD Connect, configured ADFS authentication flow, ADFS installation using AD Connect.
* Monitored System/Application Logs of server using **Splunk** to detect Prod issues, responded to alerts, and configured threshold settings.
* Implemented & maintained the branching and **build/release** strategies using **SCM** tools **GIT, GitLab, Subversion, Bitbucket** and experienced in **migrating Bitbucket repositories to GitHub.**
* Developing and maintaining the build environment, the source code control system and managing build packages using **GIT and GIT Hub**.
* Developed Pipelines in Azure data factory using copy activity to load data.
* Developed Pipelines in Azure data factory to call stored procedures to transform data for reporting and analytics.
* Managed **Nexus** repository to download artifacts during builds in **Jenkins** and integrated **Ant** and **GIT** to deploy project related tags.Integrated Maven/Nexus, Jenkins, Urban Code Deploy with Release for Git, Jira, and Cloud Foundry.
* Developed build scripts using **Ant** as the build tool for the creation of (**WAR** files) build **Artifacts** and used **ANT** for perform daily and weekly Software Builds**.**
* Implemented **Python** Scripts using stranded libraries for getting all the **agent logs** (Inventory, Remote connections, Network usage and performance counters) from the different flavors of **Linux**.

**Kaiser Permanent,Pleasonton, CA Sep 2019 – July 2021**

**Role: . Azure Devops Engineer**

**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 onto 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.
* Implemented high availability with Azure Classic and Azure Resource Manager deployment models.
* Used **Google stack driver** for monitoring the logs of both **Google KubernetesEngine** (**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
* Written templates for **GCP** infrastructure as a code using **Terraform** to build staging and production environments and automated infrastructure provisioning with **Terraform** and **Packer** by automating the image build process.
* 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 server-less architecture with **GCP**.
* Experience in writing server-side code for **Google Cloud Platform** (GCP) based applications, create robust high-volume production applications and develop 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.
* Implemented **Kubernetes (k8s)**clusters for running **microservices** and pushedmicroservices into **GCPCloud** with **Kubernetes** backedInfrastructure and automation of **Kubernetes**clusters via playbooks in **Ansible**.
* 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.**
* 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.

**Menasha,Neenah, WI May 2017 – Aug 2019**

**Role: .Devops Engineer**

**Responsibilities:**

* Automated the deployments using scripts which execute the automated **CI** and release management process.
* Created a reusable deploy distribution for the system which can be ported to multiple environments without having the need to run separate builds.
* Automate **Deployment** using **Configuration Management** tool like puppet to provision amazon **AWS** Instances to enable continuous Deployments.
* Worked on Cloud automation using **AWS Cloud** Formation templates.
* Deploy and monitor scalable infrastructure on **Amazon web services** (AWS) & configuration management using **puppet**.
* Designed **Puppet** Modules to manage configurations and automate installation process.
* Worked on Installation and configuration of DevOps tool **Puppet**.
* Deployed DevOps using **Puppet**, **Dashboard**, and **Puppet DB** for configuration management to existing infrastructure.
* Worked on migrating on-premises applications to Azure cloud using Azure Migrate. Deployed Azure VM’s and other cloud services into secured VNet’s.
* Monitoring system based on **Docker**.
* Implementing a Continuous Delivery framework using **Jenkins**, **Puppet**, **Maven** and **Nexus** in Linux environment.
* Created monitors, alarms and notifications for **EC2** hosts using **Cloud Watch**.
* Created and maintained containerized micro services by configuring private container registry on Microsoft Azure for hosting images using Windows Active Directory.
* Wrote **Bash/Shell** scripts for managing day-to-day transactions & automation of routine tasks.
* Design solution from various system components using Microsoft Azure.
* Automate all the tool and Product and Integrate together required for company specific product through Cookbooks.
* Building RHEL 5.x, 6.x and SUSE Linux 10 as a 4-node cluster from scratch using **HPSA** tool.
* Setup monitoring and alerting mechanisms for **AWS** and private datacenter infrastructure.
* Transitioned Infrastructure from private data center to Cloud (AWS).
* Experience with configuration management and automation tools (**Puppet**/ **Docker**).
* Integrated **GIT** into **Jenkins** to automate the code check-out process.
* Responsible for Database build, release and configuration.
* Perform Deployment of Release to various **QA**&**UAT** in Linux environments.

Configured Elastic Load Balancers with **EC2** Auto scaling groups

**Charter, Stamford CT Oct 2015 – Mar 2017**

**Role: Devops / Build & Release Engineer.**

**Responsibilities:**

* Interacted with client teams to understand client deployment requests.
* Coordinate with the Development, Database Administration**, QA**, and **IT** Operations teams to ensure there are no resource conflicts.
* Worked closely with Project Managers to understand a code/configuration release scope and how to confirm a release was successful.
* Build, manage, and continuously improved the build infrastructure for global software development engineering teams including implementation of build scripts, continuous integration infrastructure and deployment tools.
* Managing the code migration from TFS, CVS and Star team to Subversion repository.
* Implemented continuous integration using **Jenkins**.
* Created automation tool using Anthillpro of daily weekly quarterly admin activities, build, patch and package tasks using AnthillPro.
* Created repositories according the structure required with branches, tags and trunks.
* Configured application servers (JBOSS) to deploy the code.
* Used sub modules in the **GIT** and educated users working with sub modules in **GIT**.
* Configured plugins for the integration tools to the version control tools.
* For check in process used **Tortoise SVN** as a migration tool.
* Involved in migration of **Bamboo server, Artifactory & Git server**.
* Responsible for writing Hooks and Triggers using **Perl**. Built Java application using **ANT**.
* Good in provisioning and deployment tools like **Puppet**.
* Developed unit and functional tests in **Python & Ruby**.
* Used configuration management tools **Chef, Puppet,** and CF Engine.
* Used Puppet and MCOfor Configuration Management tool.
* Developed and maintained Perl/Shell scripts for build and release tasks.
* Extensively used **ANT** tool to do the builds, integrated ANT to Eclipse and did local builds.
* Integrated **Maven with Jenkins** for the builds as the Continuous Integration process.
* Involved in Upgrade of **Bamboo& Artifactory Server.**