Peter Paul. A

Senior DevOps Engineer

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Professional Summary:

Around 10+ years of experience in IT Industry where I focused on Automation of Build, Deployment, and Environment Management by implementing CI/CD pipelines, Configuration Management, Containerization and Orchestration, and monitoring to help teams deliver a better, reliable Production environment.

➢ Responsible for managing Amazon instances by taking AMIs and performing administration and monitoring of Amazon instances using Amazon Cloud Watch.

➢ Good understanding of the principles and best practices of Software Configuration Management (SCM) in Agile, scrum, and Waterfall methodologies.

➢ Deployed highly available and scalable applications on GCP, utilizing services such as Compute Engine, Kubernetes Engine, and Cloud Functions.

➢ Working on scripts & implemented auto deployment process and reduced the amount of time experience on Bash/Shell, Ruby, Perl, PowerShell, JSON, YAML and Groovy.

➢ Deployed Azure IaaS virtual machines (VMs) and Cloud services (PaaS role instances) into secure VNets and subnets.

➢ Experience in writing Infrastructure as a Code (IaC) in Terraform and creating its reusable modules in Azure and AWS Cloud environments and also used for Executing plans, Resource Graphs, Change Automation.

➢ Extensively worked on installing, troubleshooting and performance tuning of various Application Servers/Clients like WebSphere, Web Logic, Tomcat, Apache, JBoss, Oracle, DB2.

➢ Deploying and scaled web applications that are developed on Programming languages such as java/J2EE, .Net, PHP, Node Js, Python, Ruby, Go.

➢ Creating reusable modules and templates for infrastructure provisioning with Terraform.

➢ Administrating and supporting Azure Kubernetes infrastructure, ensuring it is secure, resilient and performance and responsible for complete DevOps activities.

➢ Automated backups, snapshots, and data retention policies for GCP resources, ensuring data durability and easy disaster recovery.

➢ Extensively worked on Azure services such as Azure AD, ARM Templates, Functions, Application Gateways, App in Java application development and manage software configuration and builds in a UNIX environment.

➢ Implemented Terraform modules for deployment of various applications across multiple cloud providers and managing infrastructure.

➢ Good experience in the design and implementation of fully automated Continuous Integration, Continuous Delivery, Continuous Deployment pipelines and DevOps processes for Agile projects (CI/CD).

➢ Expertise in database modeling and development using No SQL Database such as MongoDB and Cassandra implemented automation tasks by writing Scripts in Shell and python.

- Good Experience in automation and securing the infrastructure on AWS using Cloud Formation, Terraform and AWS Lambda and building CI/CD on AWS environment using Jenkins Pipeline.
- Good knowledge on Configuration Management Tools such as Chef, Ansible, Puppet and Automated Linux production server's setup using the chef cookbooks, Ansible playbooks.
- Experience in integrating Jenkins with Docker container using Cloud bees Docker, Kubernetes pipeline plugin and provisioned the EC2 instance using Amazon EC2 plugin.
- Worked with Ansible Playbooks for virtual and physical instance provisioning, Configuration management, patching, and software deployment.
- Building/Maintaining Docker container clusters managed by Kubernetes, Linux, Bash, GIT, Docker, on GCP.
- Experience with Docker containerized environment, hosting web servers on containers, building docker images using Docker and automating operations across multiple platforms (UNIX, Linux, Windows and MAC.
- Expertise working with Kubernetes to automate deployment, scaling and management of web Containerized applications experience in working on Docker and Vagrant for different infrastructure setup and testing of code.
- Working on Kubernetes to orchestrate Docker containers of new and existing applications as well as deployment and management of complex run time environment.
- Proficient in the AWS Cloud platform and its features, which include EC2, VPC, EBS, Cloud Watch, Cloud Trail, Cloud Formation, CloudFront, IAM, S3, Route 53, SNS, SQS.
- Expertise in working with Terraform key features such as Infrastructure as a code,
- Extensively worked with Scheduling, deploying, and managing container replicas onto a node cluster using Kubernetes with building Kubernetes run time environment of the CI/CD system to build, test and deploy in an open-source platform.
- Deploying and scaled web applications that are developed on Programming languages such as java/J2EE, .Net, PHP, Node Js, Python, Ruby, Go.
- Experience in administrating, deploying, and managing and monitoring and troubleshooting almost all flavors of Linux like UBUNTU and CentOS and Red Hat servers.
- Implemented monitoring with Grafana visualization infrastructure in Azure Kubernetes cluster.

Certifications:

- Certified **Kubernetes** Administrator
- **Azure** Administrator - Associate
- **AWS** Developer - Associate

Technical Skills:

AWS Services	RDS, EC2, VPC, IAM, Cloud Formation, EBS, S3, ELB, Auto Scaling, Cloud Trial, SQS, SNS, SWF, Cloud Watch.
Azure Services	App Services, Key vault, function app, Blob storage, Azure Active Directory (Azure AD), Service Bus, Azure Container Registry (ACR) and Azure Kubernetes service (AKS), Azure SQL.
CI/CD	Jenkins, Azure Pipelines
Artifactory	Jfrog, Nexus, Dockerhub
Web Servers	Nginx, Tomcat
Tracking Tools	Jira and confluence
Networking	VPC, Route-53, LDAP, DNS, SSH
Code Scanning	SonarQube, Jfrog X ray, ECR Inspector

Databases	RDS, Cosmos DB, MySQL DB.
Logging & Monitoring Tools	Cloud Watch, Azure App Insights, Azure Monitor, Splunk, Prometheus and Grafana, ELK, Dynatrace.
Configuration & Automation Tools	Ansible, Puppet, Chef and terraform
Container Platforms	Docker, Kubernetes, Open Shift.
Languages	Python, Shell scripting, Java, .NET.
Cloud Platforms	Microsoft Azure, Aws Cloud, GCP.
Version Control Tools	GIT, Bit Bucket.

Work Experience:

Client: Wells Fargo, Dallas, TX   **Jan 2023 - Till Date**
Role: Senior DevOps Engineer/ SRE

Responsibilities:

- ➢ Worked on Azure services such as Azure Repos, Azure Pipelines, Storage accounts, Active directory, Azure Cosmos DB, AKS, App services and EventHub
- ➢ Designed and created Azure cosmos DB for MongoDB in testing, and production environments by setting up replica sets, sharding and also involved in Atlas MongoDB migration into Azure Cosmos DB for MongoDB.
- ➢ Restricted network access to MongoDB by configuring firewall rules and RBAC rules for user access.
- ➢ Managing repositories and branches on Azure repos and collaborating with developers to resolve merge conflicts.
- ➢ Involved in Azure Functions where I created and configured HTTP Triggers in the Azure Functions with Application insights for monitoring.
- ➢ Designed and configured Azure Virtual Networks (V-Nets), Subnets, Azure Network Security Groups, DNS Settings, Security policies and Routing.
- ➢ Created and configured Azure Front Door for content delivery network (CDN) and Load Balancing for app service which are in multiple regions.
- ➢ Wrote Ansible playbooks for Configuration management, patching, and software deployment on On-prem environments.
- ➢ Collaborated with development teams to ensure seamless integration of applications with GCP services, improving application performance and user experience.
- ➢ Written Terraform Custom Templates to provision Azure resources to build staging and production environments and defined Terraform modules such as Compute, Network, managed clusters reuse in different environments.
- ➢ Created Terraform Modules to automate AKS cluster creation, VM creation, storage account creation and integrated with Azure pipelines.
- ➢ Managed GCP resources efficiently, implementing auto-scaling policies and load balancing to optimize resource utilization and application performance.
- ➢ Created azure private end points and private DNS zones in VNet to access different azure services.
- ➢ Created and configured azure Devops pipeline to deploy containerized applications into azure Kubernetes services and implemented Rolling updated deployment strategy.
- ➢ Worked with Helm Package manager in creating custom charts as per application requirement and deployed them in Kubernetes Cluster.
- ➢ Created Terraform templates for provisioning Virtual Networks, VM scale sets, Load Balances, and NAT rules, and used Terraform to deploy the infrastructure to create development, test, and production environments for software development projects.

- Worked on creating, configuring, and managing AKS clusters in Azure, including managing node pools, configuring networking, and setting up Azure Application gateway.
- Developed and executed Upgrade plans for AKS clusters to newer versions by ensuring compatibility with the latest features, security patches, and bug fixes and also involved in Monitoring and troubleshooting Azure resources using Azure app insights.
- Managing repositories and branches on GITHUB and Collaborating with developers to resolve merge conflicts.
- Worked with Terraform Templates to automate the Azure virtual machines using terraform modules and deployed virtual machine scale sets in production environment.
- Implemented Security in Web Applications using Azure and deployed Web Applications to Azure and did pilot migration of Dev/Test workloads via lift & shift to Azure using Azure Site Recovery.
- Implemented Infrastructure as Code (IaC) best practices, creating reusable Terraform modules for consistent and efficient provisioning of GCP resources.
- Maintained a robust disaster recovery strategy using GCP services like Cloud Storage and Google Cloud Backup.
- Developed a comprehensive CI/CD pipeline leveraging Jenkins and GitLab CI/CD, integrating automated testing, static code analysis, and deployment to GCP.
- Wrote Terraform-compliance test feature files and tested many modules to set some policy over the company rules and norms.
- Implemented monitoring and alerting solutions using tools like Prometheus, Dynatrace, Grafana, and CloudWatch to detect and respond to potential issues before they impact site reliability.
- Involved in Server less services (Azure Functions) where I created and configured HTTP Triggers in the Azure Functions with Application insights for monitoring. and performing the load testing on the Applications using Azure DevOps pipelines.

Client: Urban Outfitters, Philadelphia, PA.   **Oct 2021 – Dec 2022**
Role: AWS Devops Engineer / Site Reliability Engineer

Responsibilities:

- Configured and maintained an AWS Virtual Private Cloud (VPC), Public and Private Subnets, NACL's, Route Tables, Elastic Load Balancer, Security Groups and EC2 instances.
- Working with Jenkins for continuous integration and for End-to-End automation for all build and deployment.
- Implemented and maintained PostgreSQL high-availability setups using streaming replication and automated failover mechanisms.
- Developed custom scripts and automated tools to simplify data migration tasks that improves overall efficiency.
- Responsible for setting up from scratch and maintaining automated CI/CD Pipelines for multiple apps.
- Designed and created infrastructure in AWS cloud using Virtual Private cloud (VPC) by configuring Subnets in different areas for high availability and for security, Route Tables for internal communication between servers and Internet Gateway (IGW) to allow public traffic into own private network.
- Implemented data backup and restore procedures for Redshift clusters, including scheduling snapshots and configuring retention policies.
- Built complex CI/CD pipelines to automate the deployment of data migration scripts, reducing manual errors and accelerating the migration process.
- As a Site Reliability, conducted assessments of existing on-premises data, identifying dependencies and data transfer requirements before migration, ensuring minimal downtime and data integrity.
- Worked on designing and deploying a multitude application utilizing almost all of the main services of the AWS stack (like EC2, RDS, VPC, IAM, ELB, Cloud Watch, Route 53, Lambda and Cloud Formation).

- Worked on AWS Elastic Beanstalk for fast deploying of various applications developed with Java, PHP, Micronaut Node.js, Python and Docker on familiar servers such as Apache.
- Developed CI/CD system with Jenkins on Kubernetes container environment, utilizing Kubernetes and Docker for the CI/CD system to build, test, deploy and configured Kubernetes (EKS) to deploy scale, load balance, scale and manage Docker containers with multiple names spaced versions.
- 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.
- Written Terraform templates, Chef cookbooks pushed them onto Chef for configuring GCE Instances
- Configured the Jenkins pipeline for creation of Images, pushing them to ECR and deploying the containerized applications on to Elastic Kubernetes Cluster (EKS) and worked in container-based technologies like Docker, Kubernetes and OpenShift.
- Used Bash and Python, included Boto3 to supplement automation provided by Ansible and Terraform for tasks such as encrypting EBS volumes backing AMIs and scheduling Lambda functions for routine AWS tasks
- Created AWS RDS-DynamoDB databases, performed monitoring and restoring of AWS RDS-DynamoDB databases. Performed migration of MySQL to RDS-DynamoDB.
- Created automation and deployment templates for relational and NoSQL databases (standalone and RDS), including MSSQL, MySQL, MongoDB, Redis and Neo4j.
- Building/Maintaining Docker container clusters managed by Kubernetes, Linux, Bash, GIT, Docker, using Kubespray. Utilized Kubernetes and Docker for the runtime environment of the CI/CD system to build, test deploy.
- Wrote Docker files for micro service applications and good understanding of volumes and Networking for containers.
- Experience in writing Yaml files for Micro services applications.
- Configured Ansible along with terraform on Jenkins pipeline to deploy certain application-level dependencies on the Worker Nodes of the EKS Cluster.
- As a SRE Facilitate Root cause analysis (RCA) related to production incident/defects and corrective action plans and worked as SRE to make sure environments have proper DR and Fault-tolerance and ensure environment maintain its SLA.
- As a Site Reliability Engineer, transitioned on-premises infrastructure to cloud-based environments, driving the adoption of Site Reliability Engineering (SRE) practices to enhance system reliability, availability, and performance.
- Enterprise Container Services, and today using AWS Faregate. Implemented Micro Services framework with Spring Boot, NODE.JS and OpenShift containerization platform (OCP).
- Implemented a production ready, load balanced, highly available, fault tolerant, auto scaling Kubernetes cloud infrastructure and microservice container orchestration.
- Worked for 5 scrum teams (Java, AEM, Jenkins, Ant, maven, svn, git, code hub, rally, Agile methodology, cucumber scripts, fortify scan, sonar, xl deploy and xl release, SharePoint, CI/CD automation from scratch, Docker, OpenShift)
- Created Clusters using Kubernetes and worked on creating many pods, replication controllers, replica sets, services, deployments, labels, health checks and ingress by writing Yaml files
- Worked Collaboratively with Client Personnel to design and document the appropriate Enterprise DevOps & SRE Solutions that will support business objectives and developer communities
- Configuring ' Nginx' for proxy RESTful API calls to micro-services in Docker containers. Experienced in containerizing Spring and maven applications using Docker and deployed to Kubernetes.
- Configured local Maven repositories and multi-component Ant projects with Nexus repositories and scheduled projects in Jenkins for continuous integration.
- Implemented and maintained monitoring and alerting of production and corporate servers using AWS cloud watch.
- Created inventory in Ansible for automating the continuous deployment and wrote playbooks using YAML scripting.
- Worked with Terraform key features such as Infrastructure as code, Execution plans, Resource Graphs, Change Automation

- Performed complex query optimization resulting in a 15% reduction in query execution time, enhancing application responsiveness.
- Created Python and Bash tools to increase efficiency of call centre application system and operations; data conversion scripts, AMQP/RabbitMQ, REST, JSON, and CRUD scripts for API Integration.
- Created a sentiment analysis script with Python that displays customer location and sentiment based off of tweets mentioning Nordstrom.
- Managing the OpenShift cluster that includes scaling up and down the AWS app nodes.
- Worked on Jenkins for Integrating Maven to generate builds, conduct unit tests with Junit Plugin to deploy the war files on Jfrog Artifactory, SonarQube for code coverage reports and deploy the application on tomcat and EKS for both Monolithic as well as Micro service applications.
- Implemented monitoring and alerting solutions to proactively identify and address performance issues or anomalies during the migration process.

Client: Chico's, Sacramento, CA.   **Dec 2019 – Sep 2021**
Role: Azure DevOps Engineer / Site Reliability Engineer

Responsibilities:

- Creating and maintaining containerized micro services and configuring/maintaining private container registry on Microsoft Azure for Hosting Images and using Windows Active Directory.
- Developed environments of different applications on AWS by provisioning on EC2 instances using Docker, Bash and Terraform.
- Planning and implementation of data and storage account solutions for azure files, Queue storage and blob storage.
- Designed and implemented database schema, created tables and indexes, and configuring security settings for Azure SQL DB
- Extensively involved in infrastructure as code, execution plans, resource graph and change automation using Terraform.
- configuring database-level security settings, creating users and roles, and implementing access controls to ensure that only authorized users have access to correct schema.
- Designed the project workflows/pipelines using Jenkins as CI tool.
- Worked on developing APIs using Kubernetes to manage and specify the copies of the containers to run the actual servers in the cloud environment.
- Deployed applications on Azure Cloud using Elastic services AKS and Azure Container Services.
- Involved in managing and maintaining the CI/CD pipeline using DevOps Toolset which includes Continuous Integration of GitHub, Jenkins, JFrog Artifactory and deploying through Ansible and Ansible Tower.
- Responsible to take backup of SQL Managed Instances to azure blob storage and restoring them.
- Managing and monitoring Azure SQL DB instances troubleshooting issues and optimizing performance of SQL Managed Instances.
- established SLOs for critical applications, ensuring alignment with business goals and customer expectations, and continuously monitored and improved SLO compliance.
- Used Azure Kubernetes service to deploy a managed Kubernetes cluster in Azure and created an AKS cluster in the Azure portal, with the Azure CLI, also used template driven deployment options such as Resource Manager templates and terraform.
- Managed configuration files and secrets securely in the cloud environment, preventing data leaks and unauthorized access.
- Implemented Security Scans like Static and Dynamic Application testing at each layer of DevOps life cycle and converted the existing DevOps methodologies/workflows to DevSecOps model.

- Responsible for implementing containerized based applications on Azure Kubernetes by using Azure Kubernetes service (AKS), Kubernetes Cluster, which are responsible for cluster management, Virtual Network to deploy agent nodes, Ingress API Gateway, MySQL Databases and Cosmo DB for stateless storage of external data, and setup reverse proxy Nginx in the cluster.
- Managed Kubernetes charts using Helm. Created reproducible builds of the Kubernetes applications, templatize Kubernetes manifests, provide a set of configuration parameters to customize the deployment and Managed releases of Helm packages
- Worked with Terraform for automating VNET, NSG, AKS, ACR, VMs, and Storage accounts to replace the rest of our infrastructure.
- Created Ansible roles in YAML and defined tasks, variables, files, handlers, and templates.
- Implemented a CI/CD pipeline with Docker, Jenkins and GitHub by virtualizing the servers using Docker for the Dev and Test environments by achieving needs through configuring automation using Containerization.
- Installs, configures, manages and administers queries in relational databases like MySQL, PostgreSQL, Oracle and MS SQL Server.
- Helped in Migration of Maria DB, Cassandra DB, MySQL By Setting up the database on the RHEL Platform.
- Good Knowledge in Azure cloud services, Azure storage, Azure active directory and Azure Service Bus. Managing Client's Microsoft Azure based PaaS and IAAS environment.
- Setup full CI/CD pipelines so that each commit a developer makes will go through standard process of software lifecycle and gets tested well enough before it can make it to the production.
- Experience on Power Shell scripts to automate the Azure cloud system creation including end-to-end infrastructure, VMs, storage, firewall rules.
- Worked on creating, configuring, and managing AKS clusters in Azure, including managing node pools, configuring networking, and setting up load balancing.
- Replaced the use of CloudFormation with Terraform to not be fully locked into a single cloud provider.
- Involved working with a PaaS solution such as RedHat OpenShift.
- Monitoring and troubleshooting Kubernetes clusters using Prometheus Grafana.
- Developed and implemented processes and procedures for Linux OS patching.
- Collaborated with other teams to ensure patching activities do not impact critical business operations.

Client: General Motors, Detroit, MI.   **July 2017 - Nov 2019**
Role: DevOps Engineer

Responsibilities:

- Experience in Software Integration, Configuration, building, automating, managing and releasing code from one environment to another environment and deploying to servers.
- Working on multiple AWS instances by setting services like Route53, SES, SQS, SNS and created and administered DNS system using Route53.
- Worked with full AWS stack (Lambda server-less, IAM, Blue-Green deployment).
- Developed a fully automated continuous integration system using Git, Gerrit, Jenkins, MySQL and custom tools developed in Python and Bash.
- Used Terraform in AWS VPC to automatically setup and modify settings by interfacing with control layer.
- Experience with S3 Bucket services like creating buckets, managing policies, configuring buckets with permissions, logging, versioning and tagging and used S3 Bucket and Glacier for storage and backup on AWS.
- Worked on AWS Cloud Watch for monitoring the application infrastructure and used AWS email services for notifying & configured S3 versioning and lifecycle policies to and backup files and archive files in Glacier.
- Worked on migrating the on-premises application from its physical Storage Racks to AWS by using EC2, S3.

- Implemented and maintained Ansible configuration management spanning several environments in VMware and AWS cloud.
- Responsible for Continuous Integration (CI) and Continuous Delivery (CD) process implementation using Jenkins along with PowerShell to automate routine jobs.
- Created Ansible playbooks to automatically install packages from a repository, to change the configuration of remotely configured machines and to deploy new builds and various automation purpose, file copy, permission changes, configuration changes, path specific folder creation.
- Experience in working in .Net application and branching, Tagging, Release Activities on Version Control Tool like GitHub and resolving issues of merge conflicts and develop Custom Scripts to monitor repositories and Storage.
- Installed Nexus repository tool to maintain the artifacts/dependencies jars.
- Knowledge of Splunk content development with the ability to create queries and dashboards.
- Maintained and managed assigned systems, Splunk related issues and administrators.

Client: Bravo Biz Solutions, Herndon VA   **June 2015 to Mar 2017**
Role: Linux Administrator

Responsibilities:

- Installed and configured RHEL, Solaris and Windows Servers.
- Monitored, analyzed, and responded to security events utilizing security event management and reporting tools.
- Worked on account, user and group administration, Permissions policy management and quota implementation.
- Oversaw System performance monitoring, tuning and log management.
- Aided in TCP/IP Networking troubleshooting and Linux Network Administration.
- Worked closely with network/incident analysts and IC analysts to monitor current attack and threat information to identify.
- Installed, configured, supported and security implementation on following service
- Implemented and maintained server virtualization using VMware and Oracle Virtual Manager.
- Coordinated with application team in installation, configuration and troubleshoot issues with Tomcat server.

Client: Riverbed Technologies, San Francisco CA   **Feb 2013 to May 2015**
Role: Linux Administrator

Responsibilities:

- Day to day duties involved Linux server maintenance and support to developer's team for their issue's application, tuning, troubleshooting, and software running.
- Installed the latest patches for, Oracle on Red hat Linux servers, Configured and administered Send mail, Samba, Squid servers in Linux environment
- Set up the Linux Cron jobs for automating various build related jobs and application data synchronization jobs.
- Responsible for building of Linux OS servers using kickstart automation application
- Configured Kickstart and Jumpstart servers to initiate installation of RedHat Linux and Solaris on several machines at once.
- Updated previous LDAP tools to work with version of Ruby Rails.
- Involved in Installing, Configuring and Upgrading of RedHat Linux AS 4/5, Solaris 9/10 operating systems.