**Manisha K**

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**DevOps/Cloud Engineer | Build and Release Engineer | System Administrator**

**Professional Summary:**

* DevOps/Cloud Engineer having 6+ **years** of experience in **System Administration, Build** **and** **Release Engineering, Configuration Management, Continuous Integration (CI), Continuous Deployment (CD), Cloud Implementation (Azure, AWS** and **GCP)** and **DevOps Engineering.**
* Experience on complete software development life cycle **(SDLC)** along with software development methodologies like **Agile, Scrum** and **Waterfall**.
* Experience in Architecting and Implementing migration strategies for **Azure Service** Offerings such as **Azure storage, IIS, Active Directory (AD), Azure Resource Manager (ARM), Azure Storage, Blob Storage, Azure VMs, SQL Database, Azure Functions, Service Fabric, Azure Monitor, and Azure Service Bus**.

Expertise on **Azure Scalability**and **Availability**- Built VM’s availability sets using the **Azure**portal to provide resiliency for **IaaS** based solution and **Virtual Machine Scale Sets (VMSS)**using **Azure Resource Manager (ARM).**

* Hands-on experience in implementing various resources in Azure using **Azure Portal**, **PowerShell** on Azure Resource Manager deployment models and deploying **Infrastructure as Code (IaC)** applications using **ARM** Templates.
* Experience in **AWS** **Cloud** platform and its features which includes **S3,** **EC2, VPC, EBS, AMI, SNS, SQS, RDS, Cloud Watch, Cloud Trail, Cloud Formation, AWS Config, Autoscaling, Glue, Cloud Front, IAM and Route53.**
* Skilled in configuring **AWS** **EMR** Cluster, used Hive script to process the data stored in **AWS** **S3** also configured **AWS Glue** and used **Glue** Catalogue to scan the data in **S3 Buckets**.
* Experience in creating and maintaining highly scalable and **fault-tolerant** multi-tier **AWS** and **Azure** environments spanning across multiple availability zones using **Terraform** and **CloudFormation**.
* Experience in using **Google Cloud Platform (GCP)** services like **Compute Engine, Cloud Functions, Cloud DNS, Cloud Storage**and**SaaS, PaaS**and**IaaS** concepts of Cloud computing architecture and implementation using **GCP**.
* Extensively worked on **Jenkins CI/CD pipeline**jobs for end-to-end automation to build, test and deliver artifacts and troubleshoot the build issue during the Jenkins build process.
* Expertise in setting up **Kubernetes (k8s)**clusters for running **microservices** and pushedmicroservices into production with **Kubernetes** backedInfrastructure. Development of automation of **Kubernetes**clusters via playbooks in **Ansible**.
* Expertise in performing automation tasks on various **Docker** components like **Docker Hub, Docker Engine, Docker Machine, Compose and Docker Registry**.
* Experience on Backup and restore Azure services also in design and configure **Azure Virtual Networks (V Nets), subnets, Azure network settings**, **Azure Service Bus**, **DNS** settings, **Security Policies** and **Routing**.
* Experienced with **OpenShift** application scaling, OpenShift administration, OpenShift handling Docker and Kubernetes and OpenShift Security Context Constraints **(SCC)** and service account.
* Hands-on experience working on **Docker hub**, **Docker files**, building **Docker images** and handling multiple images primarily for middleware installations, domain configurations & Managed containers using **AWS** **EC2, ECR** and **EKS**.
* Experience in setting up **Kubernetes (k8s)**clusters for running **microservices** and pushedmicroservices into production with **Kubernetes** backedInfrastructure. Development of automation of **Kubernetes**clusters via **playbooks** in **Ansible**.
* Skilled in creating **Cloud Watch** alerts for instances and using them in **Auto Scaling** launch configurations and experienced with **Docker container** service and managing containers using **Docker swarm**.
* Hands-on experience on Backup and restore Azure services and in Design and configure **Azure Virtual Networks (VNets), subnets, Azure network settings, DHCP address blocks, DNS settings, security policies and routing**.
* Experience in developing **Microservices** using **Golang** and worked on test cases also experience of various **Python** application development and **CI/CD** pipeline tools like **GitHub, Jenkins, AWS,** and **Unix** shell scripting.
* Proficient in automating the Build Infrastructure for deploying services in **Docker** environment using **Jenkins**, **SonarQube**, **Gradle**, **Groovy**, **Docker** and **Splunk**.
* Experience in writing **Groovy Scripts** for Continuous Integration, used **Jenkins** uploading Artifacts into **Nexus** Repository and deployed those artifacts into **Docker** containers.
* Experience using **Kubernetes** for container management that runs **Docker** containerized applications in a cluster of **EC2** **instances** in **Linux** Environment.
* Experience in set up also managed**ELK (Elasticsearch, Logstash & Kibana)** Stack to collect, search and analyze log files across servers, log monitoring and created geo-mapping visualizations using **Kibana** in integration with **AWS CloudWatch** and **Lambda**. Evaluated system logs using **ELK** software stack.
* Experienced with **GitLab CI/CD** and migrated many applications from **Jenkins** to **GitLab CI/CD.**
* Experience in migrating from **Chef** to **Docker** and **Kubernetes** by using **Blue/Green** Deployment and deployed production-ready **Kubernetes Clusters** on top of Amazon **EC2** instances using **KOPS**.
* Expertise in writing **Ansible Playbooks**from scratch using**YAML**functions and utilizing setup and automated the **CI/CD** pipeline and deployed microservices**.**
* Experience in configuring **IaC** using **ARM** templates, Deploying to Web App using Azure Pipelines, Load balancing in **Azure**.
* Good Knowledge of **networking concepts** **(DNS, TCP/IP, HTTP, SSH, OSI layers,** **Client/Server architecture and Firewalls).**
* Experience on working with on-premises network, server monitoring tools like **Nagios,** **Splunk, ELK Stack, Dynatrace, New Relic** and on **AWS**with **CloudWatch**.
* Experience in **JIRA administration** including user management, workflow & field creation/modification, issue migration/import/export, plugin installation, **Jira - Subversion (SVN), Jira-Git, Jira-Confluence integration.**
* Self-starter, Fast learner and a Team player with strong Communication and interpersonal skills and Provided **24/7** on call support for production.

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| Cloud Technologies | AWS, OpenStack, Azure, GCP |
| Scripting | Perl, Python, YAML, Ruby, PHP, Bash, Shell, PowerShell, JSON. |
| Frameworks | Django, Flask, Spring Boot, Microservices  |
| Networking/Protocol | TCP/IP, NIS, NFS, DNS, DHCP, WAN, SMTP, LAN, FTP/TFTP |
| Virtualization Tech | VMware vSphere ESXi 5.x/4.x, ESX /3.x, VMware Workstation, Oracle Virtual box |
| Operating Systems | Linux (Red Hat 4/5/6/7, CENTOS & SUSE), Solaris 11/10/9/8, HP-UX 11.0, 11.23, 11.31, IBM AIX (5.x/6.x/7.x), HPUX11i V1, V2 & V3, Ubuntu 12/13/14, Windows NT /2000/2003, DEBIAN, Mac OSx |
| Databases | My SQL, MS Access, Oracle 9i/10g/11g, DB2, NoSQL (MongoDB, DynamoDB) |
| Version Control Tools | GIT, CVS, SVN, |
| Build Tools | ANT, MAVEN, GRADLE |
| Containerization Tools | Docker, Kubernetes |
| Monitoring Tools | Nagios, Splunk, Zabbix, CloudWatch, New Relic, Elasticsearch, Logstash & Kibana (ELK) |
| Configuration Management Tools | ANSIBLE, CHEF, PUPPET,  |
| Automation Tools | Terraform, Ansible, Chef  |
| CI/CD tools | Jenkins, Hudson, Bamboo |
| Web Servers | Tomcat, APACHE 2.x, 3.x, JBoss 4.x/5.x, Web Logic (8/9/10) & Web Sphere 4.0/5.0 |
| Web Services  | REST API’S, SOAP API’S, RESTFUL SERVICES |
| Ticketing Tools  | Jira, Bit-Bucket |
| Testing Tools | Selenium, Unit Testing, Integration Testing |

**Technical Skills:**

**Work Experience:**

***Sr. DevOps/Cloud Engineer January 2020 - Present***

***J.B. Hunt Transport Services Inc - Lowell, AR***

**Responsibilities:**

* Worked on Architecting and Implementing Azure Service Offering, such as Azure cloud services, **Azure storage, Azure Active Directory (AD),** **Azure Resource Manager** **(ARM),** **Azure Storage**, **Blob Storage, Azure VMs, SQL Database,** **Azure Functions**, **Azure Service Fabric** and **Azure Service Bus.**
* Written templates for **Azure Infrastructure as code (IaC)** using **Terraform** to build staging and production environments.
* 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.**
* Used **Jenkins as Continuous Integration** tools to deploy the Spring Boot **Microservices to Pivotal Cloud Foundry (PCF)** using build pack. Migrating from **GitLab** to **docker** and implementing **GitLab** inside **Docker**.
* Employed **Terraform**templates for automation of **Azure** IaaS Virtual machines using **Terraform** modules and deployed **VM**scale sets.
* Configured '**Nginx**' for proxying and created **REST** **APIs** for calls to micro-services in **Docker containers**.
* Used **Jenkins** and pipelines to drive all micro-services builds out to the **Docker**-**registry** and then deployed to **Kubernetes**, Created **Pods** and managed using **Kubernetes**.
* Setting up of **GCP** Firewall rules and worked on **GCP Cloud CDN**(Content Delivery Network) to deliver content from **GCP** Cache location.
* Building/Maintaining Docker container clusters managed by **Kubernetes, Linux, Bash, GIT, Docker on GCP.**
* Configuring and deploying instances on **GCP** environments and Data Centers and building/maintaining **Docker** container clusters managed by **Kubernetes, Bash, Git, Docker on GCP.**
* Used **Chef** for configuration management of hosted Instances within **GCP**. Configuring and Networking of **Virtual Private Cloud (VPC).**
* Leveraged **GCP**cloud services such as **Compute**, **auto-scaling**and **VPC** to build secure, highly scalable, and flexible systems that handled expected and unexpected load bursts. Setup **Alerting** and **monitoring** using **Stack driver** in **GCP**.
* Managed local Deployments in **Kubernetes** using **OpenShift** platform, creating local cluster and deploying application containers.
* Skilled in maintaining docker container clusters managed by **Kubernetes** and deployed **Kubernetes** applications using **helm charts**.
* Created Maven **POM**s to automate build process for the new projects and integrated them with third party tools like **SonarQube** and **Nexus.**
* Used monitoring tools like **Nagios and Splunk** to improve application performance, helps to get the visibility and to meet business demands and implemented Spark communication tool chat BOT for triggering alerts.
* Experience with Build Management tools **Ant and Maven** for writing **build.xml** and **pom.xml.**
* **Installed/Configured/Managed Puppet Master/Agent**. Wrote custom Modules and Manifests, downloaded pre-written modules from **puppet-forge**. Upgradation or Migration of **Puppet** Community and Enterprise.
* Worked on creating pipeline to automate application deployment on **Kubernetes using Jenkins**.
* Installed **Prometheus and Grafana** using **Helm** to monitor the application performance in the **Kubernetes** cluster.
* Developed multiple AWS services that have **API’s** available for use. Implemented the functionality of **EC2 API’s** and **DynamoDB APIs** in depth through **AWS CLI.**
* Using **Chef**deployed and configured **Elasticsearch, Logstash and Kibana** (**ELK**) for log analytics, full text search, application monitoring in integration with **CloudWatch.**
* Wrote **Ansible** **Playbooks** with Python SSH as the Wrapper to Manage Configurations of AWS nodes and Tested Playbooks on **AWS instances** using **Python.**
* Development and Automation for Deploying Containers, Applications, and Provisioning Public Cloud Environments with **Terraform, Ansible, Docker** and **Kubernetes.**
* Worked with containerization tools, can implement transition to **Docker** and develop distributed cloud system using **Kubernetes** and **Helm package manager** for **Kubernetes**.
* Installed Monitoring tools like **Dynatrace** for application monitoring. Used Dynatrace alerting profiles to notify on job support team when increase in error rate.
* Worked with Configuration Management automation tool **Ansible** and has worked on integrating **Ansible YAML Scripts** andwrote **Ansible Playbooks** with **Python SSH** as the Wrapper to Manage Configuration of AWS nodes and tested playbooks on AWS instances using **Python**.
* Installed and configured **Chef** Enterprise Server, Workstation, and bootstrapped Nodes with **AWS CLI**.
* Launched Docker containers on pods on top of multi-node **Kubernetes cluster** in AWS environment with help of **Kops and kubectl** and managed **Docker orchestration** and **Docker containerization** using **Kubernetes.**
* Installed application on **AWS EC2** instances and configured the storage on **S3 buckets** and **AWS** server provisioning using **Chef** **Recipes**.
* Configured and maintained automated environment using **Chef Recipes** and **Cookbooks** to **manage system configuration** within **AWS** environment.
* Created Ansible supported **YAML** scripts to restart **JBoss, Tomcat**, and **Jetty servers** through **GUI**.
* Deployed **Microservices**, including provisioning **AWS** environments using **Ansible Playbooks**.
* Used **AWS** Beanstalk for deploying and scaling web applications and services developed with **Java, PHP, Node.js, Python** and **Docker** on familiar servers such as Apache, and IIS.
* Worked with **Nexus** and **Artifactory** Repository for **Maven** and **Ant** builds.
* Installed **Groovy plugin** to Jenkins and worked on **groovy scripts** to add support for groovy projects.
* Managed iterative product delivery on time and on budget with **AGILE/SCRUM framework**.
* Used **Bitbucket** source control systems to manage code and configured **Nexus** for repository management of **artifacts**.

**Environment:** Azure, GCP, IaC, Office 365, Git, GitHub, GitLab, Azure AD, Azure CLI, Terraform, Maven, Ant, Jenkins, Docker, Kubernetes, JBoss, Jira, Chef, Apache Tomcat, ELK, Ansible, Splunk, Nexus, Java, Helm Charts, Selenium, ReactJS, Golang, Python, SQL, Shell Scripting, OpenShift, LDAP, **Microservices,** Nagios, Ansible, Bitbucket, Kafka.

***DevOps/Cloud Engineer March 2019 ­­­- December 2019***

***Client: Macy’s, Atlanta GA***

**Responsibilities:**

* Configured **AWS IAM** and **Security Group** in Public and Private Subnets in **VPC** and created **AWS Route53** to route traffic between different regions. Managed **AWS EC2** virtual instances using **Puppet.**
* Created and managed **EC2** instances utilizing various AWS services like auto-scaling groups, **Elastic Load Balancing (ELB**), **S3** and Glacier for our **QA** and **UAT** environments and infrastructure servers for **Ansible**.
* Provisioned the highly available **EC2 Instances** using **Terraform** and cloud formation and wrote new **python scripts** to support new functionality in Terraform.
* Installed and configured configuration tool such as **Chef Server** / workstation and nodes via **CLI** tools to **AWS nodes.**
* Launched **Amazon EC2 Cloud Instances** using Amazon Web Services **(Linux/ Ubuntu/RHEL)** and Configuring launched instances with respect to specific applications.
* Automated **AWS infrastructure** via **Chef, Docker,** and **Jenkins** and managed software and services configuration via **Chef Cookbook** development on **Docker containers.**
* Worked on implementing **Data warehouse** solutions in **AWS Redshift** worked on various projects to migrate data from on database to **AWS Redshift, RDS** and **S3.**
* Using **Chef**deployed and configured **Elasticsearch, Logstash and Kibana** (**ELK**) for log analytics, full text search, application monitoring in integration with **CloudWatch.**
* Managed **AWS infrastructure as code (IaaS)** using **Terraform**. Expertise in writing new python scripts to support new functionality in Terraform. Provisioned the highly available **EC2 Instances** using **Terraform** and cloud formation and Setting up the build and deployment automation for **Terraform** scripts using **Jenkins.**
* Wrote **Ansible** **Playbooks** with Python SSH as the Wrapper to Manage Configurations of AWS nodes and Tested Playbooks on **AWS instances** using **Python.**
* Development and Automation for Deploying Containers, Applications, and Provisioning Public Cloud Environments with **Terraform, Ansible, Docker** and **Kubernetes.**
* Wrote **Terraform / Ansible code** for automating secure **VPC creation** as well as the deployment process of standing up secure **Jenkins Server, ELK stack, Security Monkey, Snort IDS, etc**.
* Launched Docker containers on pods on top of multi-node **Kubernetes cluster** in AWS environment with help of **Kops and kubectl** and managed **Docker orchestration** and **Docker containerization** using **Kubernetes.**
* Worked with containerization tools, can implement transition to **Docker** and develop distributed cloud system using **Kubernetes** and **Helm package manager** for **Kubernetes**.
* Created and deployed **Kubernetes** pod definitions, tags, labels, multi-pod container replication. Managed multiple Kubernetes pod containers scaling, and auto-scaling.
* Maintained **Dockers** container clusters managed by Kubernetes and deployed **Kubernetes** applications using **Helm charts**. Worked on **Docker hub**, creating **Docker images** and handling multiple images.
* Designed **AWS Cloud Formation** templates to create custom sized **VPC, Subnets, NAT** to ensure successful deployment of **Web applications** and database templates and participated in the installation of multi-node Oracle databases on **Linux OS** and **configured RDS**.
* Configured and maintained **Jenkins** to implement the **CI** process and integrated the tool with **Bitbucket, Maven, SonarQube, jFrog** to schedule the builds. Worked on **Microservice architecture** and tools such as **Consul**.
* Created function in **Lambda** that aggregates the data from incoming events, then stored result data in **Amazon Dynamo DB** and **S3.**
* Installed and configured **Chef** Enterprise Server, Workstation, and bootstrapped Nodes with **AWS CLI**.
* Installed application on **AWS EC2** instances and configured the storage on **S3 buckets** and **AWS** server provisioning using **Chef** **Recipes**. Used **AWS API Gateway**to make **REST API Call**to **Dynamo DB.**
* Configured and maintained automated environment using **Chef Recipes** and **Cookbooks** to **manage system configuration** within **AWS** environment.
* Worked with **Ansible** to manage **Web Applications, Config Files, Data Base, Commands, Users Mount Points,** and **Packages** also to assist in building automation policies.
* Worked with logging/monitoring tools such as **Splunk, Logstash, CloudWatch and Nagios**.
* Used **AWS** Beanstalk for deploying and scaling web applications and services developed with **Java, PHP, Node.js, Python** and **Docker** on familiar servers such as Apache, and IIS.
* Created scripts for system administration and **AWS** using languages such as **Shell,** **BASH, PowerShell, Python.**

**Environment:**  AWS (EC2, VPC, ELB, S3, RDS, IAM, Cloud Trail and Route 53), GIT, Bitbucket, VPC, Route53, EBS, ELB, Cloud watch, Terraform, Kubernetes, ELK, Packer, MySQL, Consul, Ansible, Docker, Maven, AWS CLI, AWS Auto Scaling, Unix/Linux, Shell scripting, Jenkins, Nexus, Puppet, Nagios, Python Scripts, Ruby Scripts, XML, Oracle, Jira, Unix.

***Build and Release Engineer July 2017 – December 2018***

***Merion IT – Hyderabad, India***

**Responsibilities:**

* Responsible for creating builds, staging & deploying software content across multiple environments (**DEV, QA, Demo, Test, Staging, UAT & Production**)
* Automated build process with **Continuous Integration Tool Jenkins/Hudson**.
* Involved in **designing/automati**ng proof of concept projects and version control tool migrations.
* Coordinate with Developers, Business Team and Project Management for **Production Releases**.
* Involved in periodic archiving and **storage** of the source code for **disaster recovery**.
* Handling **Version Control activities** - **ClearCase**. Automated branch-based builds using **Jenkins**.
* Implemented **Jenkins Master/Slave** concept in **Jenkins’s** dashboard.
* Implemented a **Git** mirror for **SVN** repository, which enables users to use both **SVN** and **Git**.
* Manage the **source code** repository system used by the engineering team.
* Created and owned Build and **Continuous Integration** environment with **Ant, Maven, Visual Studio and Jenkins.**
* Involved in editing the existing **Ant/Maven** files in case of errors or changes in the project requirements. Converted old builds using make to **Ant and XML** for doing **Java build**.
* Used **Maven** dependency management system to deploy snapshot and release artifacts towards **Nexus** to share artifacts across projects. Built and deployed **J2EE** application in **JBoss**.
* **Merged release branches to the master** after the production release and resolved the conflicts if any during the merge **in GIT**.
* Installed and Configured the **Nexus** repository manager for sharing the artifacts within the company.
* As a member of the Release Engineering group, redefined processes and implemented tools for software builds, patch creation, source control, and release tracking and reporting on **UNIX** platform.
* Automation of deployment and server bounce process by creating scripts using **WebLogic Scripting Tool (WLST).**
* Deployment of build **artifacts** into a **WebLogic** app server by integrating the WLST scripts to Shell Scripts.
* Participated in the Change Control Board Meeting to **Analyze the risk** and plan for the successful Releases.
* Generated scripts in **Maven,** **Perl**, **Bash**, and **shell** for build activities in QA, Staging and Production environments.

**Environment:** ANT, Maven, Web logic, Shell/Bash Scripts, SVN, Hudson, Java/J2EE, UNIX, CVS, Tomcat, WebLogic, Jenkins, Python scripting, Jira, Nexus.

***System Administrator Mar 2015– June 2017***

 ***ITC Infotech – Hyderabad, India***

**Responsibilities:**

* Linux system administration (**RedHat**, **CentOS, Ubuntu**) - package management, services administration, networking, firewalls.
* Assisted with maintaining current build systems, **developed build scripts,** andmaintained the source control system.
* Imported and managed multiple corporate applications into **GitHub** code management repository.
* Managed the source codes repository of multiple development applications using **Perforce, SVN** and **Git** version control tools.
* Worked on **Red Hat Linux, Ubuntu, CentOS, Windows environments,**and **VMware**. Experience in Installing, upgrading, and configuring **Red Hat Linux 5.x, 6.x and 7.x and Debian**using **Kickstart** Servers.
* Experienced in Branching, Merging, Tagging, and maintaining the version across the environments using **SCM** tools like **GIT, Perforce** and **Subversion (SVN)** on **Linux** platforms. Resolved **TCP/IP** network access problems for the clients.
* Extensively used **SVN** and **Git** as a Configuration Management tools to manage source code.
* Performed administrative tasks such as system startup/shutdown, backups, Printing, Documentation, User Management, Security, Network management, configuration of dumb terminals.
* Created **analytical matrices reports** for release services based on **Remedy tickets**.
* Experience in Installation and configuration of **JBOSS** on **Red Hat Linux** servers.
* Performed **weekly** and **on-call deployments of application codes** to production environments.
* Troubleshooting backup and restore problems and performed day-to-day trouble shooting for the end users on Solaris and **Linux** based servers. Configured and maintained **NIS**, **NFS** servers on **Linux**.
* **Coordinated application releases** with Developers, DBAs, QA’s, and Project Managers.
* Provided 24/7 on call support on **Linux Production Servers**. Responsible for maintaining security on **Red hat Linux**.

**Environment**: Linux (RHEL), CentOS, Windows, VMware, Perforce, GIT, SVN, TCP/IP, Hudson, Remedy, JBoss, Kickstart.

**Education Details:**

Master’s Degree in Computer Science from Texas A&M University ***–*** Kingsville, TX, USA.