******Manasa K**

**Sr. Cloud DevOps Engineer**

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# **Professional summary**

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| Sr. Cloud DevOps Engineer with **7+** years of experience in IT industry with the major focus on Cloud/DevOps, Continuous Integration and Continuous Delivery (CI/CD pipeline), Build and Release management, Linux/Windows administration, and support.* Strong knowledge of SDLC methodologies such as Water Fall and Agile. Assisted development and production teams by determining application design flaws thereby enhancing **SDLC**.
* Expertise in Infrastructure Development and Operations, involved in designing and deploying Infrastructure utilizing AWSservices like **IAM**, **EC2**, **EBS**, **S3**, **VPC**, **RDS**, **ELB**, **Auto** **scaling**, **Cloud** **Front**, **Cloud** **Formation**, **Elastic**-**IP’s**, **NAT** **Gateway**, **Cloud** **Watch**, **SNS**, **Route** **53**, **Glacier, SQS, Elastic search**.
* Experienced in creating and running applications on a serverless infrastructure and implemented CI/CD using **AWS Lambda and Jenkins** and used **AWS Elastic Beanstalk** for deploying web applications.
* Created **AWS S3**buckets, performed folder management, managed **CloudTrail**logs and objects within each bucket.
* Handled creation of **AWS VPC** automatically by using **infrastructure as code tool** called **terraform** and worked with Terraform to create stacks in AWS, and updated scripts based on the requirements.
* Worked on Migrating Linux environment to AWS by creating and executing a migration plan, deployed EC2 instances in VPC, attached profiles and roles using **AWS Cloud Formation templates**.
* Expertise on **Azure storage**, **Azure Database**, **Virtual machines**, **Azure AD**, **Azure search**, **notification hub**, **Fabric Controllers**, **Azure Runbooks, Azure Data Lake, Azure data factory, RPM.**
* Premeditated **Azure Virtual Networks**, **subnets**, **Azure network settings**, **DHCP** address blocks, DNS settings, configured BGP routes to enable Express Route connections between on-premise data centers and Azure cloud.
* **Designed GCP** **Firewall** rules to allow or deny traffic from the **VM's**instances, used **GCP** cloud **CDN**to deliver content from **GCP** cache locations in order to improve user experience.
* Designed full stack **Kubernetes environment** on GCP for local deployment, used it to create **Kubernetes**cluster and configured workloads, storage for microservices and setup alerting and monitoring using Stack Driver.
* Architected **Terraform** and deployed in deployment manager to spin up resources like cloud virtual networks, **Compute Engines** in public and private subnets along with **Auto Scaling**in **GCP**.
* Expertise in creating Pods using **Kubernetes** and worked with Jenkins pipelines to drive all micro services builds out to the Docker registry and then deployed to **Kubernetes. Used Kubernetes as a** platform for automating deployment, scaling and operations of application containers across clusters of hosts.
* Familiar with Scheduling and managing container replicas onto a node cluster using **Kubernetes** and experienced in creating **Kubernetes** clusters work with frameworks running on same cluster resources.
* Implemented a highly available **Kubernetes** AWS infrastructure and **microservice** container orchestration. Provided fine-grained resource allocations for pods across nodes in a **Kubernetes cluster**.
* Expertise on several **Docker** components like **Docker Engine, Hub, Machine, creating Docker images, Compose, Docker Registry** and handling multiple images for installations and domain configurations.
* Worked on **Docker** for virtualization, run, ship, and deploy the application to runand scale containerized applications on AWS*.* Knowledge on Creating Docker Containers leveraging Linux Containers.
* Configured **Jenkins** jobs for building the Java based code and deployed it to various test servers and production environments. Through Jenkins, we automated webserver content deployments via shell scripts.
* Experienced in installation, configuration and security of **Jenkins** for automation of build and deployments and worked with integrating **Jenkins with** AWS Code Deploy plugin to push data to cloud storage.
* Monitored the integration of **Jenkins** with various tools like **Maven**, **Git**, **Nexus** and implemented **CI/CD** automation for creating **Jenkins** pipelines programmatically architecting **Jenkins** Clusters.
* Possessing strong knowledge in implementing Jenkins with the help of build tools like Ant and Maven build tools and Integrated **GitHub webhooks** into **Jenkins** to automate the code check-out process.
* **Worked on Ansible** to Manage Configurations, Created and deployed **Ansible** playbooks in AWS environment. Installed **Ansible Tower**, which provides a role-based access control.
* Used **Ansible** Playbooks to Manage Configurations of AWS Nodes and test Playbooks on AWS instances using Python. Run **Ansible** Scripts and Worked on **Ansible** for infrastructure automation.
* Developed **Ansible** playbooks from scratch in **YAML**, created inventory in Ansible for automating continuous deployment, automated configuration management and deployments using Ansible playbooks and YAML.
* Trained in supporting **Chef** Environment with 40+ servers, developed **recipes** and **cookbooks**, Installed Workstation, Bootstrapped Nodes and **Cookbooks** and uploaded them to **Chef**-**server**.
* Expertise on source code and version control management tools like **SVN, Bitbucket, Git Bash, GitHub Desktop, GitLab,** Managing Users, Groups in **GitHub**and troubleshooted client and user issues.
* Familiarity with Monitoring tools like **Cloud Watch** to create the Dashboards to view the resource monitoring and the environment monitoring across different environments.
* Experienced in developing scripts using **Python, shell (Bash) and PowerShell** and Capable to build web applications using **JAVA/HTML.** Developed multi-tenant SaaS solutions with responsive UI using React with **NodeJS**.
* Worked with Splunk GUI, Installed and clustered **Splunk** to monitor application related logs and clustered **Splunk search head** to maintain high availability of knowledge objects.
* Proficiency in setting up **JIRA** as defect tracking system and configured workflows, customizations and plugins for the JIRA bug tracker. Configured **JIRA** projects to maintain existing projects.
* Solid experience in configuring Databases like **Oracle, SQL Server, MySQL, Postgres**, **MongoDB**, managing reports using **SQL Reporting Services**, **Monitoring**, **Performance Tuning**, **stored procedures**, **triggers**, **functions**, **constraints and views**.

**SKILLS** *-DevOps -Configuration Management -AWS-Cloud Administrator*  *-Technical troubleshooting - Infrastructure Automation -Cloud Expert* |
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# **TECHnICAL** **SKILLS**

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| Cloud Environments | AWS, Azure, Google cloud platform |
| Containerization Tools | Docker, Kubernetes, Docker Swarm |
| Configuration Management Tools | Chef, Puppet, Ansible |
| Monitoring Tools | Splunk, Nagios |
| Databases | RDBMS, Oracle, MySQL, MongoDB, SQL Server, NOSQL. |
| Build Tools | ANT, MAVEN |
| CI/CD Automation Tools | Jenkins, Gitlab |
| Source code management & Version Control Tools | Subversion (SVN), GIT, GitHub, BIT BUCKET |
| Web Servers | Apache, Tomcat, Web Sphere, JBOSS, WebLogic Web |
| Languages/Scripts | Shell (Bash), PHP, Python, Ruby, Perl & PowerShell |
| SDLC | Agile, Scrum, Waterfall |
| Operating Systems | Red Hat, Ubuntu, Linux & Windows, CentOS, Debian |
| Bug Tracking Tools | JIRA, Service Now, Azure DevOps Server |

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| **Professional Experience** **EA Sports** ***Austin, TX | Jan ’20 – Present***AWS DevOps Engineer  |  |

EA Sports is a division of Electronic Arts that develops and publishes sports video games. As a DevOps Engineer, my role is to Migrate Data from On-Premise to Cloud, manage game servers and setting up new environments for game servers. Also worked on monitoring applications using Dynatrace.

**Responsibilities**

* Migrated on-premise servers to the AWS Cloud by developing **AWS VPC** to configure **NAT gateways**, configured inbound and outbound traffic to Subnets. Managed network security using **Load balancer** **and NACLs.**
* Optimized volumes and **EC2 instances** and Used **IAM** to create new **accounts, roles and groups.** Created group policies according to user roles and ensuring the identity management using **IAM Service Account.**
* Integrated with a dev team and Designed fault tolerant systems using multiple **EC2 instances**, based on the load of applications, by using **AWS AMI’s** and launched instances with respect to Applications.
* Configured and managed AWS Glacier, to move old data to archives based on retention policy of databases.
* Defined AWS resources, Parameters and mappings in JSON and YAML using **CloudFormation**.
* Implemented **AWS Lambda** functions to run scripts in response to event in S3 buckets and to implement tasks like triggering an action to copy files in between S3 buckets and taking **EBS snapshots** in regular intervals.
* Created **AWS RDS Aurora DB** cluster and connected to database through **Aurora DB Instance** using Amazon RDS Console. Also, Migrated the production SQL server schema to a new **AWS RDS Aurora instance**.
* Created **S3 buckets** and policies for the buckets and Developed End to End solution for hosting the web application on AWS cloud with integration to S3 buckets and created S3 buckets to backup database instances.
* Developed **Kubernetes**Pod definitions, used Helm Charts to version control complete deployment strategies and Constructed reproducible builds of the **Kubernetes**applications and Managed releases of Helm packages.
* Proficient in Creating **Kubernetes Pods, clusters,** deployed applications by using helm charts, created **clusters** with Terraform to ensure Lifecycle management for game server containers on **Kubernetes clusters**.
* Used **Kubernetes** to provide a platform for automating deployment, scaling of application containers across clusters of hosts. Managed local deployments in Kubernetes, creating local cluster and deploying containers.
* Worked on several **Docker** components like **Docker Engine**, **Docker Hub,** created **Docker** **images**, **compose registry** and handling multiple images primarily for middleware installations and domain configuration.
* Virtualized servers in **Docker** as per test environments, Docker the **java Spring Boot micro service** applications by developing the Docker file and Containerized **Spring Boot Java and Node.Js**applications using Docker.
* Administered **Jenkins** pipeline jobs for end-to-end automation to retrieve code, compile applications, perform tests build, test and deliver artifacts and troubleshoot the build issue during the Jenkins build process.
* Worked on setting up **Jenkins** for new branches, **build automation**, **plugin management** and setting up master/slave configurations, Configured **Jenkins** Continuous Integration and deployments into AWS EKS Kubernetes clusters.
* Build **pipeline design** and Setting up continuous integration of applications in **Apache Tomcat servers** in EC2 using **Jenkins**plugins **GIT, MAVEN**. Implemented new deployment process with **Jenkins** using **groovy code**.
* Managed **Ansible Playbooks** with Ansible modules, Created Ansible playbooks to deploy **preconfigured EC2 AMI applications** with Security group attached to Elastic load balancer and Autoscaling and Route 53.
* Scripted **Ansible** Playbooks to automate the deployment process and to integrate them into Gitlab jobs for a continuous delivery framework, created inventories, job templates and scheduling jobs using **Ansible Tower**.
* Proficient in Configuration Management using **Ansible**, Automating Deployments using **Ansible Playbooks**, **Ansible Roles**, **Ansible Variables**, **Handlers**, And **Ansible Vault** for **Encrypting data** in **Playbooks**.
* Automated releases with **Maven** scripting for Debugging and Placing Builds into **Maven Repository**. Used **Maven** dependency management system to deploy snapshot and release artifacts to **Nexus** to share artifacts.
* Configured and deployed **GIT** repositories with branching, forks, tagging, merge requests, notifications and setting up Git repositories and Responsible for orchestrating CI/CD processes by responding to **Git triggers**.
* Experience in installing and configuring and server-side monitoring using **Dynatrace**, real time call inspection, analysis Dynatrace. Build dashboards, help teams and troubleshoot application issues with Dynatrace.
* Expertise on configuring **AWS Simple Notification Service** and **Simple Queue Service** in defined VPC.
* Implemented monitoring tools like **CloudWatch** alarms to notify users, for monitoring the EC2 server's performance like CPU Utilization, disk usage to monitor system performance cost of resources in AWS.
* Created **SQL queries**, Functions for the Database layer by studying the required business objects and validating them with Stored Procedures using DB2. Implemented web services for communicating by using **SOAP hosted in the AWS.**
* Created **Python scripts** to automate AWS services which includes web servers, ELB, EC2 and database security groups, S3 bucket. Wrote Python code embedded with **JSON** to produce HTTP GET request, parsing data.
* Developed Microservice API using NodeJS, Docker, and Kubernetes. Familiar with backend frameworks like Nodejs, GraphQL, MySQL Database and AWS Stack.
* Hands on Experience in using webservers tools like **Tomcat and Apache** for deployments and for hosting.

**Environment:** AWS (EC2, S3, ELB, EBS, VPC, IAM, RDS, Cloud Watch, Glacier, Lambda), Kubernetes, Docker, Ansible, Jenkins, Maven, Git, Python, Dynatrace, Apache.

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| **Wells Fargo**Cloud DevOps Engineer  |  ***Irvine, CA | May ’19 – Jan ‘20*** |

Wells Fargo is the nation’s multinational financial company, the key role of its business strategy is cross-selling, by that practice it got customer’s profitability to the bank. My role in the team is to build a Cloud infrastructure to store Mobile Application and Text Alerts Application Data, to Automate the entire process from polling for the source code to deployment by creating pipelines for QA, Dev and Prod teams.

**Responsibilities**

* Built and configured a virtual data center in the **Google cloud platform**to handle Enterprise **Virtual Private Cloud** Public and Private Subnets, **Security Groups, Route Tables**, **Google Cloud Load Balancing.**
* Expertise in **Google Cloud Platform** services like **Compute Engine, App Engine, Firewall, Container Engine, Big Query, Cloud Functions**, **Cloud Storage, Cloud DNS, Cloud CDN and Stack driver**.
* Set up Auto Scaling of the instance group using **GCP CLI**, **GCP**cloud environments for DEV/QA environments and Provided proof of concept on designing serverless architecture using **Cloud Dataflow, Cloud Data prep.**
* Familiarity with**Azure** **VM creation, ARM Templates**, **Load Balancers**, **Azure Managed Disks**, **Azure SQL Data Warehouse**, **Azure Functions**, **Event Grid**, **Azure Resource Manager**, **Azure Blob Storage,** **PowerShell scripts**.
* Experience in configuring **Azure Application gateway, Azure DNS, Azure Traffic manager, Azure Network Watch,** involved in configuring Azure Virtual Appliances to meet security functions like intrusion detections.
* Created and managed pipelines using **Azure Data Factory, copying data,** configuring data flow in and out of **Azure Data Lake** Stores according to technical requirements.
* Created build and release pipelines using **Azure DevOps** for **.Net** based projects. Experience with **Azure Service Bus**, **Logic Apps, Application Insights, Azure Functions, Document DB and SQL**.
* Implemented **Azure Monitoring** for cloud and Remote Systems using Azure Diagnostics. Created **virtual networks** in **Azure** to assign VMs to specific networks, using **Azure Monitor** to keep track of data.
* Worked with **Terraform**key features such as Infrastructure as a code, Execution plans, Resource Graphs Converted AWS Infrastructure to Server less architecture deploying via **Terraform**.
* Strong experience in Orchestrating Docker Container Deployments with **Kubernetes** and Clustering with Docker Swarm and worked on Scheduling, deploying, container replicas onto a node cluster using Kubernetes.
* Monitored the Deployment of **Kubernetes Clusters** into **Production Environments,** managed **Kubernetes Replication Controllers**, **Kubernetes Deployment Configurations**, **Kubernetes Routes**, **DNS**, authorizing **Roles** and **Policies**.
* Created **Docker files,** ran **Docker containers** and deployed Micro services in Docker Containers using the Docker Images pushed to **Docker Hub** built by using Docker File.
* Built **CI/CD** **pipeline** and integrated **Docker Container** to deploy **Spring Boot** app into **AWS EC2.** Created custom Docker container images, tagging, pushing images, integration of **spring boot**.
* Hands on experience with configuring and maintaining **Jenkins** for Continuous Integration, created **Jenkins CI pipelines**, Contributed to CI automation by improving python framework to grab data from Jenkins builds.
* Implemented **Blue-Green** Deployment and Rolling Deployment, automated the **Jenkins pipeline** using pipeline groovy script for applications, Integrated **JaCoCo** with Jenkins to check code coverage and generated the reports.
* Responsible for installing **Jenkins master and slave nodes** and configure Jenkins builds for continuous integration and delivery. Configured GIT with **Jenkins**, schedule jobs using **POLL SCM** and Built forge for CI.
* Written **Chef Cookbooks** for various DB configurations to optimize product configuration, converting production support scripts to **Chef Recipes**, Automated creation and deletion of DEV and QA infrastructure.
* Installed **Chef Server and Chef Clients** to pick up the build from Repository and Deploy in target environments, Created & Handled cookbooks and recipes using **Ruby** in Chef Workstation & deploying them to various nodes.
* Experience in Developing **Chef Cookbooks**, recipes, data bags on chef-server using knife plugin and executed to automate the deployments in application servers like **Tomcat** by using Jenkins pipeline.
* Developed **Maven** dependency management system to deploy snapshot, Written **Maven** build tool for application layer modules, Managed Maven project dependencies by creating parent-child relationships between projects.
* Developed and maintained build environment, source code control system and managing build packages using **TFS**.
* Developed **Cronjobs** for scheduling of automatic repetitive jobs, executed **shell script in the Jenkins.** Prepared **Shell** scripts to automate admin jobs such as monitoring the servers, processes running, file handling.
* Migrated databases from **SQL Server to Azure SQL** Server, **production SQL server schema** to AWS RDS Aurora instance. Created **Azure Data Factory Pipeline** to load data from On-premise SQL Server to **Azure Data lake store**.
* Used **JIRA** for bug detecting and tracking. Developed JIRA project workflows, field configurations, screen schemes, permission schemes and notification schemes.
* Create automation to extend and innovate on microservices infrastructure supporting single sign on, user provisioning, multi-factor authentication, security and permission management.
* Expertise in customizing **Nagios** for Monitoring, Application Management and Security as per customer requirements and industry best practice. Developed **Nagios instances** and reports on Brute force attacks.

**Environment:** Azure, GCP, Terraform, Kubernetes, Docker, Jenkins, CHEF, Maven, shell scripts, Splunk, Azure Monitor, Nagios, JIRA.

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| Client: MindTreeRole: Build & Release Engineer  |  ***Bangalore, IN | Oct ’15 – Aug ‘18*** |

**Responsibilities**

* Provisioned **AWS Cloud** which includes services such as **EC2, S3, EBS, VPC, ELB, AMI, RDS, IAM, Route 53, Auto scaling, and CloudWatch.** Created **AWS Route53** to **route traffic** between different regions.
* **Configured AWS IAM** and **Security Group** in Public and Private Subnets in **VPC**, configured and managed the **ELK**for log management within **EC2 and Elastic Load balancer.**
* Created four staged **CI/CD pipelines** with **AWS Code Pipeline** plugin for **Jenkins, GitHub Repository, Jenkins** build server **EC2** instance using **IAM** instance role, proxy to allow inbound connections on server.
* Hands on experience with **Docker images, Docker HUB, Docker Swarm, and Docker registries**. Proficient in container-based deployments, Infrastructure virtualization and app isolation using Docker.
* Responsible for installation & configuration of J**enkins** to support various Java builds and Jenkins plugins to automate continuous builds and publishing Docker Images. Monitored **CI/CD pipeline** through Jenkins.
* Developed **groovy scripts** in Jenkins to execute jobs for a continuous integration pipeline, used **Groovy Jenkins Plugin** and **Groovy Post-Build Action Plugin** as build step and post build actions.
* Acquainted with an agile development team to deliver an end to end continuous integration/continuous delivery product in an open source environment using tools like **Puppet.**
* Wrote **Puppet**manifests for deploying, configuring, monitoring to automate Configuration Management to the existing infrastructure, Also Managed Web Applications, Configured Files, Data Base, Commands using puppet.
* Constructed the **Puppet** modules for continuous deployment and worked on Jenkins for continuous integration, Expertise in Installation and configuration of Puppet which includes **Puppet** **Master**, **Agent Nodes, Console.**
* Automated Weekly releases with **ANT** scripting for Compiling Java Code, Debugging and Placing Builds into Maven Repository. Used **Ant scripts** to perform the builds and wrote **builds.xml** files for development teams.
* Worked with **Subversion**, implemented branching strategy suitable for agile development. Integrated Subversion for automating builds with Jenkins. Managed branching for applications by creating Release branches.
* Used **Shell** scripting to deploy artifacts that are built by Ant. Expertise in Configuration Management policies and practices with regards to **SDLC** along with automation of scripting using **Ruby, Bash scripting**.
* Monitored performance of applications, servers and performing capacity planning using **Nagios** and used to notify when it reaches the threshold limits.

**Environment:** AWS**,** Docker**,** Jenkins, Puppet, ANT, Maven, SVN, Scripting, Nagios.

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| Client: Zensar Technologies Role: UNIX/Linux System Administrator  | ***Pune, IN | May ’12 – Sept ‘15*** |

**Responsibilities**

* Performed system administration of **UNIX** servers by Managing Linux workstations and servers.
* Worked with design, configuration, installation, implementation, management, maintain and support for the corporate Linux servers **CENTOS** 5, **Ubuntu**, **Red Hat servers.**
* Worked in creating **python and shell scripting** for the automation of tasks.
* Worked on **RPM** package manager to **install, update, verify, query** and erase software packages on **Linux Servers** and worked on automation of activities using bash scripting.
* Remotely coping files using **SFTP, FTP, SCP** and regularly manage backup process for server and client data.
* Regular **disk management** like adding/replacing hard drives on existing servers/workstations, partitioning according to requirements, creating and managing new file systems.
* Usage of Service Management Facility for enabling, disabling and troubleshooting services in maintenance mode.
* Worked with DBA team for database performance issues, network related issue on Linux / Unix Servers and with vendors for hardware related issues.
* Monitored overall system performance, performed user management, system updates, file systems, network and disk & storage management using **NAGIOS** monitoring.
* Involved in Creation and maintaining user accounts administering file systems and recognizing file access problems.

**Environment:** UNIX, Linux, Shell, Windows XP, **Red Hat Linux**, CentOS, Nagios, Tomcat.

**Educational Qualification**

Master’s in Computer Science - University of Houston, Clearlake