**Mohit Malik**

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**DevOps Engineer**

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**PROFESSIONAL SUMMARY:**

* Overall 7+ years of experience in Build and Release Management, DevOps Engineering, Cloud, Linux and UNIX system Administrator with application configurations, code compilation, packaging, building, automating, managing and releasing code from one environment to other environment and deploying to servers.
* Excellent systems administration skills (Windows and Linux Servers – RedHat, Ubuntu, AIX, Solaris)
* Proficient in AWS Cloud platform and its features which includes EC2, VPC, EBS, AMI, SNS, RDS, EBS, Cloud Watch, Cloud Trail, Cloud Formation AWS Config, Autoscalling, CloudFront, IAM, S3, and Route53.
* Deployed applications on AWS using Elastic Beanstalk, Implemented and set up Route53 for AWS Web Instances.
* Implemented Amazon EC2 setting up instances, virtual private cloud (VPCs), and security groups.
* Set-up databases in AWS using RDS, storage using S3 bucket and configuring instance backups to S3 bucket.
* Implemented AWS Code Pipeline and Created Cloud formation JSON templates in Terraform for infrastructure as code.
* Designed, configured and deployed Microsoft Azure for a multitude of applications utilizing the Azure stack (Including Compute, Web & Mobile, Blobs, Resource Groups, Azure SQL, Cloud Services, and ARM), focusing on high - availability, fault tolerance, and auto-scaling.
* Expertise in Microsoft Azure Cloud Services ( PaaS & IaaS ), Document DB, Azure Monitoring, Key Vault, Visual Studio Online (VSO) and SQL Azure
* Experience in designing Azure Resource Manager Template and in designing custom build steps using PowerShell.
* Very good understanding of DevOps concepts and a critical thinker of its different application areas.
* Experience with deploying configuration management and CI/CD services such as (Puppet, Ansible, Power shell, Jenkins, Vagrant, Docker, JIRA, Cloud Formation, Elastic Beanstalk)
* Configured Continuous Integration by setting up Build and test automation Jobs in Jenkins by pointing to UI layer Repositories in GitHub
* Extensively used Jenkins to streamline CI/CD process , automated Master-Slave configurations using temporary slaves
* Provided servers virtualization using Docker for the test environments and dev-environments, also worked on configuration automation using Docker containers
* Used Docker coupled with load-balancing tool Nginx to achieve continuous Delivery goal on high scalable environment
* Used Kubernetes to orchestrate the deployment, scaling and management of Docker Containers.
* Developed Chef Cookbooks for Tomcat, MySQL, windows applications and versioned them on Git repositories and Chef Server.
* Responsible for creating puppet modules and manifest files from scratch and experience in editing existing puppet manifests and automated manual installation processes using puppet.
* Wrote different Ansible playbooks for installing, configuration, and upgrading different Applications on the Servers
* Experienced in MAVEN & ANT as Build Tool for building of deployable artifacts (war) from source code. Installation and deployment management repository generated by Maven and Ant artifacts, and store the build process using dependency jar.
* Automated the process of deployment to Apache Tomcat Application servers by developing python scripts. Experience in using Tomcat and Apache web servers for deployments and hosting tools
* Worked on monitoring tools like Nagios and Splunk to health check the various deployed resources and services.
* Networking (DNS, TCP/IP, HTTP, SSL), Support / Troubleshooting experience
* Strong hands-on background in database technologies (Oracle, Mysql, MS SQL, RDS, DynamoDB)
* Automated processes with custom built Python & Shell scripts.
* Familiarity with Agile Development Methodology
* Experience working with all phases of the software development lifecycle (SDLC).
* Strong working knowledge of storage environments (SAN, NAS)
* Good knowledge of security management, auditing methodology and technology risk assessment
* Experience with web deployment technology specifically including Linux, Apache, Tomcat, and Java.
* Expertise with IPsec, VPN, Load Balancing, Routing Protocols, SSH, Network Monitoring / Troubleshooting tools
* Experience building infrastructure as code.
* Hands-on experience migrating Oracle, SQL Server instances to AWS RDS (Oracle to Oracle migration, Oracle to Postgres migration, Oracle to MySQL)

**TECHNICAL SKILLS:**

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| **Operating Systems** | **Amazon Linux AMI, Linux (Ubuntu, Fedora, Centos, Red Hat, Debian), Solaris,****Windows**  |
| **Web and Middleware** | **Tomcat, APACHE, F5 Load Balancers, Web Logic & Web Sphere, Nagios, JBoss, Microsoft IIS server.** |
| **Languages** | **Java, Shell Scripting, Power Shell Scripting, HTML5, PHP, Python, JavaScript, Json, CSS3, Bootstrap, JQuery, XML** |
| **DevOps tools** | **Jenkins, GitHub, Maven, Docker, Ansible, Nagios, Chef, Puppet, SaltStack** |
| **Databases** | **Oracle, MySQL, SQLServer, MongoDB, Postgre SQL, RDS,DynamoDB** |
| **Networking** | **TCP/IP, FTP, SSH, SMTP, SOAP, SNMP, DNS, TELENT, Squid, HTTP and HTTPS.** |
| **Test and Build tools** | **Ant, Maven, Jenkins, Bamboo, Hudson and Gradle.** |
| **Cloud** |  **AWS, Microsoft Azure, Google Cloud, Rackspace, OpenStack** |

**PROFESSIONAL EXPERIENCE:**

**Fiserv (Alpharetta, GA) August 2018– Present**

**Role: Devops Engineer**

**Responsibilities:**

* Developed scripts for AWS orchestration maintaining and expanding AWS infrastructure, and providing mentorship to others on my team
* Designed and managed public and private cloud infrastructures using Amazon Web Services (AWS) which include VPC, EC2, S3, Cloud Front, Elastic File System, RDS, Direct Connect, Route53, Cloud Watch, Cloud Trail, Cloud Formation and IAM which allowed automated operations
* Designed user defined routes with custom route tables for specific cases to force tunneling to the Internet via On-premise network and control use of virtual appliances in the customer's Azure environment.
* Provided high availability for IaaS VMs and PaaS role instances for access from other services in the VNet with Azure Internal Load Balancer.
* Leveraged "Azure Automation" and PowerShell, Chef and Puppet to automate processes in the Azure Cloud..
* Involved in branching, tagging and maintaining the version across the environments using SCM tools like GIT, Subversion (SVN) and TFS .
* Created Terraform scripts and used CloudFormation templates to automate the provisioning of AWS resources like IAM, EC2, S3, Route 53, SNS, RDS, ELB and Auto Scaling and made calls to Puppet scripts for configuration of servers on the instances.
* Setup 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.
* Created Ansible playbooks to automatically install packages from a repository, to change the configuration of remotely configured machines and to deploy new builds
* Lead transition from manual configuration and deployment to infrastructure as code using Chef, including design and implementation of cookbooks and tooling
* Created Docker images using a Docker file, worked on Docker container snapshots, removing images, managing Docker volumes and setting up Docker Host.
* Used Kubernetes as open source platform for automating deployment, scaling and operations of applications containers across clusters of hosts, providing container centric infrastructure.
* Implemented Cloud Infrastructure as a Service environment using open source technology Open Stack to enable portability of cloud services across hybrid cloud environments.
* Worked on Openstack threat modeling which takes a comprehensive look at the system at components, protocols and code.
* Deployed Applications into production and pre- production environments with various application server technologies like Weblogic, Jboss & Apache Tomcat.
* Worked with development team to migrate Ant scripts to Maven and Worked on authoring pom.xml files, performing releases with the Maven release plugin and managing Maven repositories.
* Developed automation scripting in Python (core) to deploy and manage Java applications across Linux servers. Worked on customization of existing Python scripts of some of the internal applications.

**TeleWorld Solutions (Chantilly, VA) Sep 2017– Aug 2018**

**Role: Cloud Infrastructure Engineer**

**Responsibilities:**

* Provided architectural designs based on the client requirements for their application hosting in the AWS Cloud Environments
* Provisioned AWS resources using management console as well as Command Line Interface(CLI)
* Setup specific IAM profiles per group utilizing newly released APIs for controlling resources within AWS based on group or user.
* Configured alarms in CloudWatch for monitoring the server's performance, health, CPU utilization, Memory and disk usage.
* Configured AWS Multi Factor Authentication in IAM to implement 2 step authentication of user's access using Google Authenticator and AWS Virtual MFA .
* Designed Azure Virtual Networks (VNets), subnets, Azure network settings, DHCP address blocks, security policies and routing
* Provided high availability for IaaS VMs and PaaS role instances for access from other services in the VNet with Azure Internal Load Balancer
* Provided consulting and cloud architecture for premier customers and internal projects running on Microsoft Azure and AWS platform taking high availability, fault tolerance, cost optimization and security in consideration.
* Implemented a continuous build-test-deployment (CI/CD) system with multiple component pipelines using Jenkins and Docker to support weekly releases and out-of-cycle releases based on business needs.
* Provided container management using Docker by writing Dockerfiles and set up the automated build on Docker HUB and installed and configured Kubernetes.
* Involved in implementing Ansible playbooks configuration and maintaining them in several environments on AWS cloud and Microsoft Azure
* Used CI/CD tools Jenkins, Git, Jira and Docker registry for configuration management and automation using Ansible.
* Installed, deployed and managed Linux RedHat Enterprise 7.x, CentOS, Ubuntu, and installed patches, packages for Red Hat Linux Servers.
* Installed Management Server (vCenter Server) instances to enable centralized management of multiple ESXi hosts. Linked different vCenter servers using linked mode to have a single instance of vSphere client to manage the whole Virtual environment

**KeySight Technologies (Chantilly, VA) June 2016 – Aug 2017**

**Role: Automation Engineer**

* Created automated pipelines in AWS CodePipeline to deploy Docker containers in AWS ECS using services like CloudFormation , CodeBuild , CodeDeploy , and S3 buckets.
* Designed AWS Cloud Formation templates to create custom sized VPC, subnets , NAT to ensure successful deployment of Web applications.
* Written templates for AWS infrastructure as a code using Terraform to build staging and production environments.
* Installed and configured an automated tool Puppet that included the installation and configuration of the Puppet master, agent nodes and an admin control workstation.
* Configured and integrated the servers for different environments to automatically provision and configuration management of Linux instances using provisioning tool Chef.
* Worked with Ansible playbooks for virtual and physical instance provisioning, configuration management, patching and software deployment..
* Applied the Clustering Topology that meets High Availability and Failover requirement for performance and functionality.
* Experience in migration of consumer data from one production server to another production server over the network with the help of Bash and Perl scripting.
* Installation, Configuration and administration of DNS, LDAP, NFS, NIS, NIS+ and Send mail on Redhat Linux/Debian Servers.
* Worked on installation, configuration and maintenance Debian/Redhat, CentOS and Suse Servers at multiple Data Centers.

**NetSmartz(Chandigarh, Pb) June 2014- Dec 2015**

**Role: Build and Release Engineer**

* Participated in the release cycle of the product which involves environments like Development, QA, UAT and production.
* Managed source code repository, build, and release configurations, processes, and tools to support daily development, test, and production build and software deployment operations.
* Developed builds using ANT and Maven as build tools and used CI tools to move builds from one environment to another environment.
* Used version control system GIT to access repository, and to manage and deploy project related tags by integration with Maven
* Implemented pipelines in Jenkins. Added multiple nodes to Jenkins and configured SSH for continuous deployments
* Designed and implemented fully automated server build management, monitoring and deployment using Chef
* Installed Tomcat instances and managed multiple application configuration by creating Puppet manifest files.
* Created the automated build and deployment process for application, leading up to building a continuous integration and continuous deployment system
* Modified the SCM database for software lifecycle process flow, user permissions, access and file attributes in response to user requests
* Maintained development infrastructure including Nexus artifact repository, Bamboo CI server, JIRA, and Confluence.
* Worked with development teams providing deployment services from initial development through production deployments
* Worked with the Release Manager to improve build automation and to reduce bottlenecks in the delivery pipeline.
* Redefined processes and implemented tools for software builds, patch creation, release tracking and reporting.
* Developed test environment that reduced integration issues and improved code quality.

**Busibud (Chandigarh, Pb) June 2013- June 2014**

**Role: AWS Admin**

* Worked with AWS service (EC2, ELB, VPC, S3, Cloud Front, IAM, RDS, Route 53, Cloud watch, SNS).
* Implemented roles and groups for users and resources using AWS Identity Access Management (IAM) and managed network security using Security Groups and IAM.
* Created Amazon EC2 instances using command line calls and troubleshoot the most common problems with instances and monitor the health of Amazon EC2 instances and other AWS services.
* Created customized AMIs based on already existing AWS EC2 instances by using create image functionality, hence using this snapshot for disaster recovery.
* Setup S3 buckets for Artifact management and Storage of batch files for multi cluster batch applications.
* Involved in designing and deploying multiple applications utilizing almost all the AWS stack (Including EC2, Route53, S3, RDS, Dynamo DB, SNS, SQS, IAM) focusing on high-availability, fault tolerance, and auto- scaling in AWS Cloud Formation.
* Datacenter migration to Amazon Web Services (AWS) infrastructure and provided initial support to Applications and Database teams.
* Data management in AWS cloud including disaster recovery, Backups, automated backups, storing log files etc.
* Monitored resources and applications using AWS Cloud Watch, including creating alarms to monitor metrics and configured notifications for the alarms generated based on events defined.
* Configured AWS cloud watch to monitor AWS resources and application, includes creating AWS Customized Scripts to monitor various application and system & Instance metrics.
* Provided troubleshooting of AWS EC2 Status check including System Status checks and Instance Status check alerts.
* Good understanding of AWS Elastic Block Storage (EBS), various volume types and utilization of different types of EBS volumes based on requirement.
* Configured cloud Watch to monitor EBS volumes including monitoring volume, queue, length to monitor applications/databases performance.
* Provided monitoring of RDS instances by metrics such as Database Connections, Disk Queue Depth, Free Storage Space, Replica Lag, Read/Write IOPs, Read/Write Latency.
* Created Cloud Formation templates to automate the provisioning of AWS resources like IAM, EC2, S3, Route 53, SNS, RDS, ELB and Auto Scaling and make calls to provision and configure servers on the instances.