**Deekshitha**

**Sr.Cloud/DevOps Engineer
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**Professional Summary**

Experience of **over 6 + years** in the field of Information and Technology that includes System Administration with a foremost focus on **DevOps, Continuous Integration/Deployment, Configuration Management, Source Code Management, and Virtualization technologies** which includes Troubleshooting Performance issues.

* Experience in **AWS** Services like **EC2, IAM, Subnets, VPC, Cloud Formation, AMI, S3, SNS, SES, RedShift, CloudWatch, SQS, Route53, CloudTrail, AWS** **Kinesis, Lambda, Network ACLs, Security Groups, Route Tables, Route53, Elastic Beanstalk** and **RDS** and obtaining High Availability, Fault Tolerance and autoscaling for AWS EC2 instances utilizing the services like **Elastic IP, EBS** and **ELB.**
* Worked on **Configuration Management tools** like **Ansible, Chef, Puppet** to automate the environment that included developing **playbooks, cookbooks,** manifests in Ruby and **YAML scripts**.
* Experience on puppet/chef configuration management of several hundreds of servers across multiple platforms like **AWS** cloud, **VMWare and physical servers**.
* Proficient in designing high performance and Available applications on AWS across Availability Zones and Experience on **fault tolerance, Disaster Recovery** and **auto-scaling** in AWS **Cloud Formation.**
* Knowledge on Infrastructure as a serviceconcepts of cloud computing architecture and Implementation using **AWS**, **OpenStack, OpenShift, Pivotal Cloud Foundr+y (PCF).**
* Experience in Ansible Tower dashboard, role-based access control, access to Ansible for deployments and connected multiple ansible tower nodes into a Ansible Cluster.
* Experience in Ansible setup, managing hosts file, Using YAML linter, authoring various playbooks and custom modules with Ansible and Ansible Playbooks to automate in **AWS** services like Launching EC2, Provisioning **IAM, Configuring VPC, EBS,** Monitoring using **CloudWatch** and **CloudTrail.**
* Experience in automation of different deployment tasks with Ansible Playbooks and also knowledge on Ansible inventory files and Ansible Galaxy.
* Experience in dealing with Windows Azure IaaS-Virtual Networks, **Virtual Machines, CloudServices, Express Route, Traffic Manager, VPN, Load Balancing,** **Application Gateways**, Auto-Scaling.
* Proficiency in migrating on premise to Windows Azure using Azure Site Recovery and Azure backups and also having good knowledge on **Azure Fabric, Micro services** in Azure.
* Working experience on various Azure services like Compute (Web Roles, Worker Roles), **Azure Websites, Caching, SQL Azure, NoSQL, Storage, Network services, Azure Active Directory**, API Management, Scheduling, Auto Scaling, and **Power Shell Automation**.
* Experience in designing 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.
* Exposure to REMEDY, BUGZILLA and JIRA defect tracking tools and monitoring tools like N**agios, Splunk** for monitoring server/app status, disk space issues and log parsing.
* Experience in **Orchestration tools** like Kubernetes, Docker Swarm; designing and deploying container-based production clusters using Docker, **Kubernetes, Docker Swarm.** Developed Docker images to support Development and Testing Teams and their pipelines; distributed **Jenkins, Selenium, JMeter** and **ELK stack images.**
* Building/Maintaining Docker containerclusters managed by Kubernetes, GIT, Docker, on AWS. Expertise in App Containerization technology **Docker, creating Docker images, Containers, Docker** Registryto store images, cloud-based registryDocker Hub, Docker Swarm to manage containers.
* Created images and containerized the application build using **Dockerfile** and Docker-compose YAML files. Created and built micro services using the **docker compose.**
* Experience in creating and managing Docker containers on a cluster hosted on a serverless infrastructure using **ECS** by distributing the application traffic in **ELB, Cloud Front** to distribute content to **edge locations, Cloud watch** to **set alarms** and **notifications.**
* Managing the micro services using its **nodes, pods, ConfigMaps**, selector and services by deploying docker containers through Kubernetes. Built largely open source technology such as **Docker, Kubernetes, Terraform** and leveraging multiple cloud platforms both public and private to deliver a ubiquitous and consistent global platform for continuously deploying applications.
* Hands on experience in Jenkins on creating **CI/CD pipelines** and creating freestyle projects **pipeline**, multi branch **pipeline Jobs.** Used Jenkins pipeline to provide **API** access to a private repo and deploy the **artifact** to EC2 instance. Integrated matrix Authorization Strategy plugin with Jenkins to specific permissions to Jenkins jobs.
* Integration of Jenkins with version control tool like **Git** for pulling remote repository to perform **CI/CD** **pipelines** and using the webhooks to trigger the Jenkins Pipeline from Github for the CI process.
* Experience in build tools like **MAVEN** and **ANT** for deploying **war, tar, ear artifacts** from the source code.
* Worked on version control tools like **Github, Gitlab, SVN, Bitbucket** on **Linux environment** by performing **pushing** and **pulling**, checking out the repository, **merging** the **branches**. Writing some **pre-commit** & **post-commit** hook scripts in GIT and Troubleshoot many branches & merge conflicts and on Linux environments.
* Experience in Cloud Infrastructure automation tool, **Terraform;** managing service providers along with **versioning, building** and changing the infrastructure efficiently through variabilisation.
* Experience in integration of Terraform with **Ansible, Packer** to create and Version the AWS Infrastructure, designing, automating, implementing and sustainment of **Amazon machine images (AMI)** across the AWS Cloud environment.
* Developed **Python** and shell/bash scripts for **TC Server/Tomcat** web application servers and automation of the build and release process and to automate certain processes for the smooth process of build tool like **Maven.** Deployed **JAVA/J2EE** applications through **WebLogic/WebSphere** Application servers.

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| **Cloud Environments** | Amazon Web Services (AWS), Azure, OpenStack, PCF, Open Shift |
| **Configuration Management Tools** |  Ansible, Ansible Tower, Chef, Chef Automate, Puppet |
| **Containerization Tools** | Docker, Kubernetes, Elastic Kubernetes Services (EKS),Docker swarm, Docker compose |
| **Virtualization** | Windows Hyper-V, Virtual box, Vagrant |
| **Operating Systems** | Linux (Red Hat 4/5/6/7, CENTOS), Ubuntu 12/13/14, Windows NT 2000/2003 |
| **Automation Tools** | ANT, Maven, Jenkins, Terraform |
| **Web Servers** | Apache HTTP 2.x ,3.x, Nginx, IIS, Apache Tomcat |
| **Database** | AWS RDS, MongoDB, MySQL, Postgresql, Amazon Aurora, MYSQL SERVER 2008/12, DynamoDB |
| **Scripting languages** | Python, Ruby, Bash shell, Power shell, JSON |
| **Networking/Protocol** | DNS, DHCP, WAN, TCP/IP, NIS, NFS, SMTP, LAN, FTP |
| **Version Control Tools** | GIT, Bitbucket, SVN, GITLAB, GITHUB |
| **Monitoring Tools** | Splunk, Nagios XI, Cloud Watch, ELK, New Relic |
| **Volume Manager** | LVM, VVM |
| **Application Servers** | Oracle Web Logic (8/9/10), IBM Web Sphere (4/5), JBOSS |

**InComm, Atlanta, GA** **Dec 2019 to Present**

**Sr. Cloud/DevOps Engineer**

**Responsibilities:**

* Involved in complete cycle on migrating physical Linux/Windows machines to cloud (AWS) and configured Apache webserver in the Linux **AWS** Cloud environment using Chef automation.
* Worked on AWS Auto Scaling in **VPC,** for providing high availability of applications and **horizontal** scaling of EC2 instances and monitoring the resources such as **EC2 instances** CPU memory through **Cloud Watch** based on a load of applications by using **AWS Cloud Watch.**
* Creating and utilizing the S3 buckets along with managing policies, versioning the **S3 buckets** and automated backups to S3 bucket by shell for Linux and **Glacier** for storage and backup on AWS.
* In order to perform data manipulation of incoming events created functions in Lambda and stored results in Amazon S3 and have setup triggers to inform via email through **SNS.**
* Using Amazon **Kinesis** and **Lambda** redesigned list management system to run as a scalable microservice within the Amazon cloud (AWS).
* CloudWatch for monitoring CPU, memory, disk space and store logs and setup alerts for thresholds using **Simple Notification Service (SNS)** Setup **CloudTrail** to record **API calls**.
* Wrote Terraform scripts to automate AWS services which include **Web servers, ELB, Cloud Front distribution, Database, EC2**, database security groups and **S3 bucket**.
* Configured AWS cloud infra as code using terraform and continuous deployment through Jenkins and automated the cloud formation using Terraform.
* Upload and download of **Docker images** from **Docker Hub**, created **Docker files** to automate the process of capturing and using the images. Defined a multi-container application in a single file, span the application up in a single command using **Docker Compose.**
* 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.
* Configured **Kubernetes** Replication controllers to allow multiple pods such as **Jenkins** master server in multiple minions. Managed Kubernetes charts using **Helm**, managed Kubernetes manifest files and created reproducible builds of the **Kubernetes** application.
* **Developed microservice** on boarding tools leveraging Python and Jenkins allowing for easy creation and maintenance of build jobs and **Kubernetes** deploy and services. Involved in **setting up Kubernetes (k8s) clusters** for running microservices. Took several microservices into production with Kubernetes backed Infrastructure.
* Built Elastic search, Log stash and **Kibana (ELK**) for centralized logging and then store logs and metrics into S3 bucket using **Lambda function** and also maintained and troubleshooted build issues with ELK.
* Designed, installed and implemented the **Ansible** configuration management system and used **Ansible** to manage Webapps, used **Ansible Tower** to automate repetitive tasks, quickly deploy critical applications and proactively manages change. Built **Jenkins** pipeline to drive all microservices builds to **Docker registry** and deploy to **Kubernetes**. Created **Jenkins** jobs to create **AWS** Infrastructure from **GitHub** repositories containing **Ansible** playbook.
* Automatic deployment of **SCM/CI/CD** applications and idempotently to reduce the time costs by creating and troubleshooting the **Ansible scripts** and **Kubernetes YAML files**.
* Deployed Jenkins servers for Deploying application version builds to dev, staging and prod across **VPC** subnets groups using VPC peering.
* Retrieval of code by building end to end **CI/CD Pipelines** in Jenkins, compiling applications, performing tests and built artifacts to **Nexus Artifactory**.
* Integrated version control tool **GIT** with Jenkins using the GitHub plugin to automate the process of source code check-out by providing the URL and credentials of the **GIT repository**.
* Experience in monitoring the availability & performance of **AWS** Linux servers through tools like vmstat, net stat, svmon, vmstat and iostat.
* Automatic spinning up the instances in **AWS EC2** through written **Python scripts** using the Boto3 library and used OpsWorksstacks to integrate with Auto scaling with configured **AMI’s.**
* Experience in **Python**, shell and ruby scripting including but not limited to writing scripts to automate AWS administration tasks viz., tagging instances, volumes, etc.

**Environment & Tools:** AWS EC2, S3, VPC, Route 53, CloudFormation, Docker, Kubernetes, Ansible, Terraform, Maven, ANT, Jenkins, GIT, SVN, JIRA, Nagios, Splunk, RHEL, CentOS, Shell scripting, Python Scripting and Perl scripting

**DELL EMC Hopkinton, MA Dec 2018 – Dec 2019**

**Sr. Cloud/DevOps Engineer**

**Responsibilities:**

* Responsible for creating **AWS** components like Amazon EC2 instances, **IAM, VPC, ELB, Security groups** using **Terraform** and also used Terraform to map more complex dependencies and identify network issue.
* Used the Amazon pluginto create and provision the **AWS EC2 instance** and created **AMIs**, rolesand groups for mission-critical production server’s backup and optimized volumes and EC2 instances & Created **multi AZ VPC** instances & Used **IAM** to create **new accounts, roles** and **groups**.
* Configured **S3** to **host static web content, versioning and lifecycle** policies to backup files and archive files in **Glacier** also performed encryption on the objects of **S3** using the **SSE-KMS.**
* My responsibility included installation and configuration of the **monitoring tool** **datadog**, to collect the observability data along with infrastructure metrics, traces and logs that reduced complexity of multiple platforms.
* Made use of Bird’s-eye view to simplify the infrastructure visualization, sorted and filtered the hosts using the automatically generate the tags, **monitored** the services interaction and mapped the dependencies of the application to find the bottleneck.
* Created and deployed Docker containers by using images stored in repository. Scheduled, deployed and managed **container replicas** onto a node cluster using Docker and Configured the Docker cluster to establish communication between pods and MySQL instance on **RDS of AWS.**
* Created virtual imagessimilar to production environment using Docker, developed andmaintained containers on a private **DockerHub.** Implemented multiple caching strategies to increase the average build speed of frequently used **Docker containers** from 35 min to 5 min.
* My role included Integration of **Puppet** with the Apache, developed load testing and monitoring suites in Python. Used Puppet to deploy **ELK** for automating continuous deployment (CD) and configured Slave Nodes and deployment failure reporting.
* Used to build automation **Jenkins server**, Install and configuration of Jenkins, **configure plugins, job setup,** and **build pipeline** and **delivery pipeline** views. Cloud infrastructure maintenance using a combination of Jenkins, Puppet and **Terraform** for automating CI/CD pipeline in **AWS**.
* Worked on a continuous integration tool **Jenkins** for daily automation process. Configured **CI/CD** pipeline for the automatic deployment of **artifacts**/application to the required servers or environments in Jenkins CI, and Clean for the new build process whenever code commits are done to **SCM tool Git**.
* Configured and maintained **Jenkins** to implement the CI process and integrated the tool with **Maven** to schedule the **builds**. Took the sole responsibility to maintain the CI Jenkins server.
* Wrote scripts in **python** to support and to set up an automated server infrastructure using the DevOps servicesand also wrote scripts in the user level to meet the customized requirement specifications.
* Performed **terraform** commands like apply and show, for necessary functions like changing the infrastructure safely through **variabilisation** and also deployed terraform templates on stack.

**Environment & Tools:** AWS EC2, S3, VPC, CloudFormation, Docker, Puppet, Terraform, Maven, ANT, Jenkins, GIT, SVN, JIRA, Nagios, Splunk, RHEL, CentOS, Shell scripting, Python Scripting and Perl scripting

**Genpact, Hyderabad, INDIA Jan 2017 to July 2018
Cloud/DevOps Engineer**

**Responsibilities:**

* Implemented Enterprise Integration architecture **using Azure ServiceBus, AppServices, Active Directory, Storage, hybrid connection manager, active directory authentication** for azure SQL server and other offerings by azure.
* Designed **Network Security Groups (NSGs)** to control inbound and outbound access to network **interfaces (NICs), VMs and subnets.**
* Provided high availability for IaaS VMs and PaaS role instances for access from other services in the VNet with **Azure Internal Load Balancer.**
* Conducted current state assessment of infrastructure framework to identify gaps and recommended solution. Leveraged assessment result to enhance existing framework and designed strategic solution for owners and users.
* Designed a robust future state Ingestion Framework solution leveraging **Azure Data Factory, Azure SQL database** & Data warehouse.
* Installed Workstation, Bootstrapped Nodes, Wrote Recipes and **Cookbooks** and uploaded them to **Chef Server**, Managed On-site OS Applications.
* Extensively worked on **Chef Roles, Cookbooks, Recipes, Templates, Resources, Attributes & Data bags** Proficient in the setup of Chef Servers, workstations & bootstrapping infrastructure Chef Nodes for configuration management.
* Automation and the deployment of **cookbooks** on nodes through wrapper scripts and running the chef client on them in a Chef-Solo environment. Rolled out **Chef** to all servers, used chef node database to drive host configuration monitoring, configured Chef Server, Chef Solo including bootstrapping of Chef Client nodes for provisioning.
* Involved on migrating SQL Server databases to **SQL Azure Database** using SQL Azure Migration Wizard and used **Python API** to upload agent logs into Azure blob storage.
* Worked on continuous integration tool like **Jenkins** for End to End automation for all build and deployments.
* Installed, tested, deployed monitoring solutions with **Splunk** services, deployment Server Topologies in Splunk.
* Used **Git** with **Jenkins** to integrate to automate the code checkout process. Coordinated developers with establishing and applying appropriate branching, labelling/naming conventions using **GIT source control**. Created the naming strategy for branches and labels and involved continuous integration system with **GIT version** control repository and Continually build as the check-in's come from the developer.
* Developed **Python, Perl** and **shell/bash scripts** for **TC Server/Tomcat** web application servers and automation of the build and release process and to automate certain processes for the smooth process of build tool like **Maven.** Developed Build related scripts in **Maven** and modified configuration files such as **Maven's Pom.xml**.
* Performed OS installations, OS Upgrades, & Server Patching by configuring **PXE & DHCP** server using Kickstart & Jumpstart scripts on **Red Hat Linux 5.x, 6.x & 7.x**

**Environment**: Azure, Chef, Python, Linux, Maven, Jenkins, Python, Shell scripts, Splunk, GIT, Red Hat Linux 5.x, 6.x & 7.x., SQL Server

 **KnoahSoft, Hyd, India Jan 2016- Dec 2016**

**System Administrator**

**Responsibilities:**

* Setting up, configuring and troubleshooting TCP/IP, DHCP, DNS, NFS, CIFS, NTPand Sambaservers on different multi-platforms (Windows, Linux).
* Local and remote administering of servers, routers and networks using Telnet and SSHlogin using SSH keygentools for password-less setup and agent forwarding on **Linux.**
* Used **ANT** build tool for scripts deployment and deploy processes using **Jenkins** to move from one environment to other.
* Automating various activities using scripting languages like **Perl, Python, PowerShell** based on the requirements. Provided technical solutions and investigated alternative methods for solving problem to configure, imaged, deployed, and integrated new equipment into the environment.
* Performed daily system monitoring, verifying the integrity and availability of all hardware, server resources, and reviewing system and application logs.
* Migrated the entire Application from **JBOSS** to **Tomcat environment**.
* Setup Squid Proxy Server for internet sharing and to block the unwanted sites.
* Managing HP-UX, Compaq and Linux workstations and servers.

**Environment:** Linux, UNIX, Microsoft Windows, LAMP, TCP/IP, DNS, NFS, NIS, SAMBA, Perl, Python, PowerShell Java, SQL, Oracle, Agile, Bash, Shell, WebLogic, Apache, Subversion

**S4 Consultants, Hyderabad, India Aug 2014 – Dec 2015 Linux Administrator**

**Responsibilities:**

* Installation and configuration of **Linux**, UNIX, SUSE & RedHat 5.x/6using Kickstartwith PXEfor LAMP (Linux, Apache, MySQL and Perl/PHP). Worked on Linux Package installation using RPM and YUM, provisioned system with LVM.
* Responsible for maintaining the various servers and Production Support of different applications in **RedHat Enterprise** **Linux** and Windowsenvironment.
* Developed, customized and build packages on Solaris and rpms on Linux for deployment on various servers through **Software Development Life Cycle (SDLC).**
* Installing, configuring, and implementing of **RAID 0, RAID 1, and RAID 5** levels using Logical Volume Manager (LVM), VERITAS Volume Manager (VVM)and Solaris Volume Manager.
* Creation and cloning of Linux VM’s, templates using VMware Virtual Client migrating servers between ESX hosts.
* Written **Python, Pearl and Bash** to **automate CRON** jobs and system maintenance.

**Environment:** Linux, UNIX, Microsoft Windows, LAMP, TCP/IP, DNS, NFS, NIS, SAMBA, Perl, Python, PowerShell Java, SQL, Oracle, Agile, Bash, Shell, WebLogic, Apache, Subversion