**VIVEK SAI N**

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**DEVOPS ENGINEER**

**SUMMARY**

* 8 years of experience as DevOps Engineer and Linux Administrator.
* Extensive Experience in the DevOps Engineer role involved from the Deployment to Production Phase.
* Worked on infrastructure team on Installation, Configuration and Management of Linux OS (**Centos, RHEL, Ubuntu, SOLARIS**).
* Experience in System Administration, Installs, Upgrades, Migrations, Troubleshooting, Security, Backups, and Performance Monitoring on Linux boxes.
* Experience in working on source control tools like **SVN, GIT, Nexus**
* Strong knowledge on source controller concepts like Branching, Merging and Tags
* Experience in working on Configuration Management tools like **Puppet, Ansible.**
* Extensively used Puppet & Ansible for deploying the application on DEV, QA and Prod Nodes.
* Installed, configured, upgraded and managed Puppet Master and Agents.
* Installed and managed the application through Puppet such as **TOMCAT, SQUID, GREASYSPOON.**
* Have very good experience on Roles and Profiles pattern for deploying application using Puppet.
* Used test-driven environment like Vagrant Kitchen for testing the puppet code locally before pushing to QA or PROD stack using librarian puppet.
* Good knowledge of key **AWS** components such as **EC2 Cloud Compute, S3, V.P.C** etc.
* Designed and Provisioned **Azure** **IaaS**, **PaaS** services as **IaC** using **ARM Templates**, **Terraform**.
* Configured Build and Release (CI/CD) processes using **Azure DevOps**
* Designed and integrated on-prem networks with **Azure networks** for **IaaS** needs.
* Managed **Azure services** using Azure native monitoring tools and integrated with monitoring solutions and third-party solutions such as **Dynatrace** full stack monitoring tool.
* Installed, Configured and setup the builds using **Jenkins** **CI/CD** pipeline. Automated process using **Ansible**
* Worked on setting up whole ELK (**Elastic Search, Logstash and Kibana**) Stack cluster environment, used to forward the application logs for monitoring. And also created the dashboard on kibana.
* Extensively worked on installing and configuring **Dynatrace** monitoring and setting up **oneagents** on clients for sending metrics.
* Worked on installing and configuring **Kafka** cluster in between our nodes and Elastic search to prevent failover.
* Experience in setting up **Grafana** metrics dashboard for monitoring the system metrics.
* Used **Telegraf** and collectd to collect the system metrics and forwarded the metrics to **Influx dB** and used Grafana to visualize the system metrics. Created very beautiful dashboard for monitoring the metrics.
* Designed, Deployed, Maintain & monitor **Cassandra** Architecture from scratch.
* Work on **Openstack** on a daily basis to manage the infrastructure, adding volumes and creating the user data for the set of commands that will be executed during the instance creation.
* Have good knowledge on **AWS**.
* Experience in deploying **Containerized Apps** with **Docker**.
* Built many dashboards on **splunk** and **ELK** for the log analysis, which helped the supervisor’s analyst the data.
* Built an entire monitoring framework for our team with a lot of plugins (written in shell) to alert if we have an issue with any of our physical or cloud servers like **SENSU, NAGIOS & ICINGA.**
* Have good experience with **Shell** and **Python** **Scripting**.
* Day to day administration of the Development environment and Production and Test environment systems. 24x7 on-call support
* Managing DNS, LDAP, FTP, Tomcat & Apache web servers on Linux servers.
* Worked on Configuring **A10 load balancer** for physical servers.
* Worked on sending Hardware Information form (HIF) to Datacenter team for setting up bare metal servers (Physical nodes).
* Installed and configured Apache Mesos, Marathon and Chronos using Puppet.

**TECHNICAL SKILLS**

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| --- | --- |
| Operating Systems | Linux OS (Centos, RHEL, Ubuntu), Windows NT, 2000, XP |
| DevOps Tools | OpenStack, Ansible, AWS, Terraform, Docker, ELK, Apache Kafka, Apache Spark (Thrift), Kitchen (Hashicorp). |
| Languages | Shell (BASH/KSH), Python, |
| Versioning Tools & Virtualization Tools | GIT, SVN, VMWare Vsphere 5.5, AWS (EC2, S3, V.P.C etc.), Open Stack, AZURE. |
| Log Monitoring Tools, Incident Management Tools & CI/CD | ELK, Splunk, Puppet, Ansible, Ansible Tower, Jenkins & Concourse |
| Distributed Databases & RDBMS | Apache Cassandra, HDFS, Oracle 11g, Sybase 10.x, 11.x, 12.5, SQL Server 2005,2008 |

**EDUCATION:**

**Bachelor’s in computer science** from **Jawaharlal Nehru Technology University.**

**Master’s in computer and Information Sciences** from **Sacred Heart University.**

**PROFESSIONAL EXPERIENCE**

**HYUNDAI AUTO EVER AMERICA JAN 2022 – Present**

**DEVOPS ENGINEER**

* Working in Connectivity Service team as a **DevOps Engineer** with **Production Support.**
* We work on setting up the infrastructure for the project and also provide **system administration support.**
* We follow **Agile Methodology** for assigning tasks by using **JIRA** ticketing system.
* We use **Jenkins** work on setting up Jenkins Pipelines and staging and production deployments.
* We handle staging deployments everyday and support the QA for testing.
* We use **Ansible** configuration management tool for application deployments.
* We create ansible roles and write **ansible** **playbooks** using modules. We check the code to **GitHub** and follow **branching** **strategies** for deployments.
* We setup the **Dynatrace** full stack monitoring tool. We worked on setting up **active gates** and **one agent installations** for Dynatrace via Ansible.
* Involved in end to end setup for Dynatrace cluster handled by using ansible.
* We handle the installation of **security** **patches** via Ansible.
* We work on writing the **Shell** and **Python** scripts for day to day tasks like log purge scripts.
* We use **ELK** for log monitoring, involved in setting up **Elastic Search Cluster, Kibana nodes** and **Logstash** on client nodes to ship the logs.
* We work on filtering the logs using **GROK** patterns in Logstash configurations.
* We use **Kafka zookeeper** data streaming pipeline in between elastic search and Logstash. This will help us to tackle the failover.
* We work on setting up the **Liquibase** on our servers for database deployments using **daticalDB** and **datical** **portal** to manage the deployment process.
* We use **Service Now** for all service request and incident ticket. We follow proper change process.
* We handle **production** deployments and **Hotfix** in maintenance windows, when the traffic on the servers are low. We have roll back scripts in place incase of roll back to older versions.
* We create **Root Cause Analysis** after the issue got fixed. RCA will state the issue information and actions taken to fix the issue.
* Working on source control tools like **SVN**, **GIT**.
* We provide **24/7** ON**-**CALL support**.**
* Handling troubleshooting issues like boating, RPM packages, User management and backup.
* IP bonding for load balancing and fail over, **Firewall, SELINUX**.
* Hosting and securing web pages using **Apache** (httpd) web server and **SSL**.
* User Administration & Quota Management
* Creating and deploying **LVM**, resizing the logical volume and volume group.
* Configuration and administration of **LDAP, NFS and FTP in** Red Hat Enterprise Linux.
* Helped the team in packet capturing using TCP dump and wire-shark.
* We monitor traffic from Load balancer in all different ports and In-bound/ Out-Bound traffic via Dynatrace setup.

**HSBC GLOBAL PRIVATE BANKING (Wipro Limited). Sept 2020 – Dec 2021**

**DEVOPS ENGINEER**

* Working in Data Platform Automation team from Wipro to HSBC Global Private Banking.
* We use **Agile Methodology** for assigning the tasking by using **JIRA** ticketing system.
* Working on Automation tools like **Puppet** and **Ansible** to Automate the **API calls.**
* We use **Ansible** for **Orchestration** where we create the ansible roles to make API call which parse required variables in Json format.
* Working on writing the ansible playbooks.
* We use Ansible Vault for Encrypting and Decrypting Confidential files which contains passwords and IPs.
* We use branching strategies using GIT for testing the code in **DEV/UAT/PRE-PROD/PROD** environments.
* Developed & maintained **Puppet Manifests**. Puppet code is classified into Roles & Profiles with each node getting only role and a role can have many profiles.
* Working on writing Puppet manifests to deploy the application into the servers.
* All the Firewall Rules - IP Tables are managed using puppet.
* Infrastructure Development on **AWS** by using EC2, RDS, Cloud Front, Cloud Watch, lambda.
* Work on AWS's autoscaling and cloud formation, work on **ELB, EBS, EC2, Cloud watch alarms, VPC, SUBNET** on a regular basis.
* Worked on developing and managing ARM templates to provision Azure resources in Azure cloud environments.
* Managed linux infrastructure in Azure environments.
* Managed Azure services using Azure native monitoring tools and integrated with monitoring solutions and third-party solutions such as Dynatrace full stack monitoring tool.
* Configured Build and Release (CI/CD) processes using Azure DevOps
* Worked on **Jenkins** by installing, configuring and maintaining for the purpose of continuous integration and continuous deployment (**CI/CD**) and for End-to-End automation for all build and deployments.
* Used **Jenkins** as **CI/CD** for creation of RPM packages. Whenever new pixels were pushed to GIT, **Jenkins** would then build the RPM and commit the newly built **RPM’s** to an **SVN repo**.
* Working on setting on **Splunk** for **Log Monitoring** and **Grafana** for **system metrics**.
* Working on creating the **dashboards** in Splunk and Grafana.
* We use **Telegraf** to ship the system metric from server to **Influx db.**
* We use and maintain **Physical** and **VMs servers** for Operations.
* Working on writing **Shell** and **Python** Scripts.
* Worked on developing pre-build scripts in python and shell.
* Working on source control tools like **SVN**, **GIT**.
* We use **Mule Soft** for creating the **API** **Console** using **Any point Studio**.
* Worked with developers to develop **REST APIs** using **MuleSoft Any point API Platform.**
* Tuned **MuleSoft** applications to obtain optimum performance and **CPU** **utilization**.
* Managing **DNS**, **LDAP**, **FTP**, **Tomcat** & **Apache** **web** **servers** on Linux servers.
* Setup & Deployment of **Splunk** for log monitoring using puppet configuration management tool and created the dashboards.
* Worked on building Cassandra Cluster and Spark integration.
* 24x7 on call support.

**Comcast Cable Communication, Philadelphia, USA JAN 2016 – SEPT 2019**

**DEVOPS ENGINEER**

* Worked in Data Sciences and Cyber Security Team at Comcast Cable Communication.
* Worked on NSE Cybersecurity Browser Notification Platform Project in DSCS team.
* Infrastructure Management of Production Servers. Servers include deployments in both **Open Stack and Physical Servers.**
* Worked in **Agile team** used **Kanban process** for assigning the task by using **Rally** and **Jira** Ticketing system.
* Using **Puppet** and **Ansible** to automate deployment of applications on all of the Production and QA stack.
* Installation, Configuring, Upgrading the Puppet Master and Agents.
* Used test driven environment like **Test Kitchen** and **Vagrant** to test and validate the puppet code locally.
* Developed & maintained Puppet Manifests. Puppet code is classified into Roles & Profiles with each node getting only role and a role can have many profiles.
* Designed, Deployed and maintain continuous data flow model using **Apache Cassandra**. This includes designing Cassandra Keyspace’s and Table Schema, using shell scripts to format data, transferring data through Logstash into Cassandra.
* Entire deployment and **SSL encryption** of Cassandra done with Ansible and self-signed internal certificates at Comcast.
* Created Simple Storage Service(**S3**), buckets and Utilized S3 bucket and Glacier for storage and backup on **AWS**.
* Created, Configured and Implemented the Virtual Private Cloud (VPC), Subnets, Gateway, Elastic Compute Cloud (**EC2**) instances, **Cloud Watch**, Elastic Load Balancer (**ELB**), **Route** **53** DNS, **Auto** **Scaling** configurations using the configuration management tool puppet and CLI.
* Deployed **Apache Spark Cluster** to connect Tableau with Apache Cassandra. Automated this procedure by replicating the code in Ansible and help it cluster over 3 nodes using MetaStore.
* Used **Jenkins** as **CI/CD** for creation of RPM packages. Whenever new pixels were pushed to GIT, Jenkins would then build the RPM (using bash shell) and commit the newly built RPM’s to an SVN repo.
* Setup & Deployment of **ELK Stack** from scratch using puppet for **log monitoring**. And created the dashboard for every site and automated the process.
* Setup & Deployment of **Grafana** metric dashboard for monitoring system metrics and created the dashboards.
* Using Telegraf and collectd to collect the system metrics, forwarded to **Influx dB** database and visualized the data on **grafana**.
* Deployed applications like Tomcat, Squid and Greasy spoon on **Physical** and **cloud** nodes for serving the browser notifications to customers.
* Using **Jenkins (CI/CD)** for creating building the **RPM’s** and deploying in Nexus repo. And used puppet here to install it on nodes.
* Working on configuring the **A10** Network **load** **balancers** for physical nodes.
* Worked in creating Hardware information form (HIF) for new physical server deployments.
* Worked on provisioning new physical nodes from ILO. Deployed all the required applications using puppet.
* Worked on real time traffic Migration from old nodes to newly provisioned servers.
* Also worked on decommissioning the old hardware from inventory.
* Worked on installing and configuring **Kafka** cluster in between our nodes and Elastic search to prevent failover.
* Worked on creating entire monitoring framework for our team with a lot of plugins (written in shell) to alert if we have an issue with any of our physical or cloud servers like **SENSU, NAGIOS and ICINGA**
* Used Monit tool for bringing the application up if it goes down. And added team email distro for **Monit** configuration to get the email notification if any application goes down.
* Used Concourse as the primary CI/CD tool and was run with standalone docker containers using **docker-compose**.
* One example is the creation of RPM packages. Whenever new pixels were pushed to GIT, concourse would then build the RPM (using bash shell) and commit the newly built RPM’s to an SVN repo.
* Since Concourse uses **docker** containers to perform the actual build, it was easy to leverage docker specific commands for building the pipeline
* Setup & Deployment of **Splunk** for log monitoring using puppet configuration management tool and created the dashboards.
* 24x7 on call support.

**JNIT TECHOLOGIES INC. NOV 2015 – JAN 2016**

**LINUX ADMINISTRATOR**

* Configuration and Administration of **Web Server** and **SSL**.
* Management of Red Hat Linux user accounts, groups, directories and file permissions.
* IP bonding for load balancing and fail over, **Firewall**, **SELINUX**.
* Creating and deploying **LVM**, resizing the logical volume and volume group.
* **NTP** server and client configuration for synchronization of timing of the entire server with the NTP server.
* Working on writing **Shell** and **Python** Scripts.
* Worked on developing pre-build scripts in python and shell.
* Working on source control tools like **SVN**, **GIT**.
* Used test-driven environment like **Vagrant** for testing the code.
* Expertise knowledge on the Installation, Configuration and administration of DNS, LDAP, NFS, NIS, NIS+ and Send mail on Red hat Linux/Debian Servers.
* Created and maintained network users, user environment, directories, and security.
* Worked on Monitoring tools like **Nagios** and **Splunk** for log Monitoring.
* Worked on Automation tools like **Puppet**.

**BPEX Solutions, Hyderabad, INDIA JUNE 2012 – AUG 2013**

**Linux Administrator as Intern**

• Yum configuration & package installation through **YUM**.

• Installation of **Red Hat Enterprise Linux**.

• Configuration and troubleshooting for Red Hat Linux.

• Handling troubleshooting issues like boating, RPM packages, User management and backup.

• IP bonding for load balancing and fail over, **Firewall, SELINUX**.

• Hosting and securing web pages using **Apache** (httpd) web server and **SSL**.

• User Administration & Quota Management

• Creating and deploying **LVM**, resizing the logical volume and volume group.

• Configuration and administration of **LDAP, NFS, FTP, SAMBA and POSTFIX Servers** in Red Hat Enterprise Linux.

• Performances, CPU and Memory monitoring of Red Hat Enterprise Linux.

• Create, deploy and manage Linux and windows VM using Red Hat Enterprise Virtualization Manager, which includes moving and migrating VM from one cluster to another cluster or within the same cluster.

• Experience in Windows 2003 and2008 Active Directory Installation and Configuration.

• Experience in implementing PowerShell scripts to automate creating contacts from **Active Directory** users

• Heartbeat clustering for high availability in Apache.

• Installed and configured **ESXi 5.0, 5.1 Servers** on Blade servers. Creating Virtual machines. Creation of templates from VMs and Creation of VMs from templates.

• Configure vCenter Server 5.0, 5.1 in production environment and created many clusters and enabling HA and DRS for Load balancing and High Availability. Worked on Migration concepts like **Vmotion, SVmotion** and cold migration.

• Performed physical to virtual (P2V) and (V2V) migrations for approximately 50 physical servers utilizing VMware Converter.

• Firmware upgrade, managing the servers, collecting Logs, open KVM console for troubleshooting.