Name: Lakshmi N

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Sr. Cloud/ DevOps Engineer

**Professional** **Summary**:

* IT professional with **8+ years** of experience in Installation, Configuration, Upgrading, Support and Maintenance of various platforms of Linux like RHEL, SUSE, CentOS, Debian, Ubuntu, Unix platforms like Sun Solaris, IBM AIX, and Windows Servers.
* Experience in DevOps and Cloud environment, where worked on tools for configuration manager (Puppet/Chef and Ansible), CI/CD (Jenkins), version control (Git) as well as experience in Cloud IaaS with AWS and AWS Cloud Administration including services such as S3, EC2, VPC, EBS, AMI, ELB, SNS, RDS, IAM, Auto Scaling, Route 53, CloudFront, CloudTrail and OPS Work.
* Experienced in working on DevOps/Agile operations process and tools area (Code review, unit test automation, Build & Release automation, Environment, Service, Incident and Change Management)
* Experience in creating DevOps strategy in a mixed environment of Linux (RHEL, CentOS), Windows along with creating and implementing a Cloud strategy based on Amazon Web Services (AWS).
* Maintained and optimized Azure infrastructure, including Azure VMs, Azure SQL Database, Azure Functions, and Azure App Service.
* Managed Ubuntu, Linux, and Windows virtual servers (Rackspace and AWS EC2) with Ansible, Chef (configuration Management tool) using Git.
* Expertise in Amazon Cloud Services: IAM, EC2, S3, EBS, VPC, ELB, RDS, Dynamo DB, Auto Scaling, Security Groups.
* Hands-on experience in working with Terraform to provision a data center infrastructure along with AWS.
* Expertise in automation of the continuous integration and deployment, with the help of AWS services such as Elastic Beanstalk, Lambda, Code Commit, Code Deploy, Code Pipeline, CloudFormation,
* Experience in Cloud automation using AWS Cloud Formation templates and Terraform.
* Experience working on Bash/Perl, Ruby, and Python scripts to perform change control automation.
* Expertise in source code management using GIT, CVS, SVN and well versed in code management using repositories.
* Experience working on Migration from a physical data center environment to AWS.
* Proficient in deployment of JAVA Applications using JBoss/Oracle, WebLogic, and Tomcat Application Server.
* 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 with monitoring and logging tools like Nagios, Splunk and New Relic for monitoring network services and host resources.
* Good understanding of OpenShift platform in managing Docker containers and Kubernetes Clusters.
* Experience working on Build, Deploy and Release of products built on Java, J2EE using technologies such as SVN, CVS, Ant, Maven, Gradle, Artifactory, Hudson, Jenkins, Web logic, Web sphere, Oracle, OSB, Perl, Python and Shell scripts, Terraform.
* Experience in building pipelines for application versions, using Jenkins Continuous Integration.
* Experience in using Nagios and Splunk for monitoring teams to identify and troubleshoot issues.
* Experience in working on container management and orchestration tools like Docker and Kubernetes.
* Experienced in Cloud automation using AWS Cloud Formation templates and migration to Amazon web Services from Datacenter.
* Worked on JIRA, ticketing tools for handling and generating tickets.
* Knowledge in using Nexus and Artifactory Repository Managers for Maven builds.

**SKILLS:**

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| --- | --- |
| **Amazon Web Services** | EC2, ELB, VPC, RDS, IAM, Cloud formation, S3, Cloud Watch, Cloud Trial, SNS, SQS, SWF, EBS, EMR, Dynamo DB, Elastic Beanstalk, Route53, Aurora. |
| **Azure** | Azure key vault, ARM Templates, Azure Kubernetes Service (AKS), Azure App Service, Azure VMs, Azure SQL Database, Azure Cosmos DB, Storage Blobs, VSTS, VPN gateway. |
| **SCM Tools** | Subversion, Bit Bucket, GIT, Clear Case. |
| **Build tools** | Ant, Maven, Gradle. |
| **Continuous Integration Tools** | Jenkins, Bamboo. |
| **Configuration Management Tools** | Chef, Ansible, Puppet. |
| **IAC Tools** | Terraform, Cloud Formation, Azure Resource Manager Templates |
| **Containers** | Docker, Kubernetes. |
| **Virtualization** | Oracle Virtual Box, VMware, Vagrant. |
| **Scripting languages** | Shell scripting, Python, Java, NodeJS, Ruby, Perl, Bash. |
| **Databases** | Oracle, MS SQL Server, MySQL, NoSQL, PostgreSQL. |
| **Operating System** | Linux (Red hat, Centos, Ubuntu), Windows |
| **Monitoring Tools** | Splunk, Nagios, ELK, Prometheus, Grafana, New Relic, Data-Dog |

**Project Summary:**

**Client: E-Trade,** **Arlington, Virginia**

**Duration: Feb 2021 – Current**

**Role: Sr. DevOps Engineer**

**Responsibilities:**

* Support AWS cloud instances such as management & configuration of various AWS products.
* Perform all the Linux operating system management, patch management, configuration management on the Linux instances in AWS.
* Work on AWS cloud computing platforms and its versatile scalability such as VPC, EC2, ELB, IAM, S3, auto scaling, code deploy, RDS, Lambda, custom monitoring with cloud watch.
* Worked on AWS in creation of Autoscaling Group and launch configuration.
* Configured an AWS Virtual Private Cloud (VPC) and Database Subnet Group for isolation of resources within the Amazon RDS Aurora DB cluster.
* Work in Core Java, Messaging (JMS), XML, XSLT or JAXB, Web API.
* Work with databases such as SQL, MS SQL, MySQL, NoSQL.
* Working in an Agile environment with incremental code deployments (Agile, Jira, WorkFront, Scrum/Kanban/Safe, etc)
* Orchestrated and migrated CI/CD processes using Cloud Formation, terraform templates, and containerized the infrastructure using Docker setup in AWS and Amazon VPCs.
* Wrote the Terraform scripts to install the Kubernetes cluster and its dashboard on to AWS.
* Managed all existing servers and automated the build/configurations of new servers by integrating Ansible to manage and integrated Ansible with Jenkins, GitHub, and Maven.
* Wrote scripts on Python, shell and bash and modified existing scripts on automations.
* Centralized monitoring and logging for the systems that are running on cloud and on-premises, using tools such as New Relic / Splunk.
* Installation of Docker using Docker toolbox. Server setup and nginx including F5 load balancing and worked with OpenShift platform in managing Docker containers and Kubernetes Clusters.
* Wrote deploy hooks/scripts for code deploy to deploy code from Git using Jenkins to AWS EC2 instances and have written multiple Jenkins jobs in bash.
* Created and hardened an Amazon Machine Image (AMI) and installed google authenticator.
* Designed, configured, and deployed Amazon Web Services for a multitude of applications utilizing the Amazon Web Services focusing on high-availability, fault tolerance and auto-scaling.
* Wrote Docker files and created images out of it as well as pulling and pushing Docker images to various environments from Docker Hub Registry.
* Deployed Dockerized Applications in Kubernetes cluster using Helm Charts.
* Worked on setting-up continuous deployment pipelines using Jenkins across multiple Kubernetes clusters to stress the clusters with new infrastructure tools for Kubernetes in development environments. Automated these pipelines through Jenkins using pipeline script.
* Installed Jenkins on AWS EC2 instance and configured to run all the application cron jobs to run through Jenkins server.
* Worked with GIT to store the code and integrated it into Ansible Tower to deploy the playbooks.
* Worked on the concept of GIT cloning to create GIT repository.
* Developed AWS Cloud Formation templates to create custom sized VPC, subnets, NAT, EC2 instances, ELB, Security Groups.
* Used Ansible for central management of Linux configuration files and software package management.
* Managed Amazon Web Services (AWS) infrastructure with automation and configuration management tools Ansible.
* Configured Jenkins pipeline jobs workflows to improve reusability for building pipelines.
* Configured and managed Apache Web Server on Linux for web-based applications using REST/SOAP, Apache and WebLogic.

**Environment:** AWS EC2, VPC, S3, Web API, Java, SQL Databases, Tomcat Application, WebLogic, GitHub, Helm Charts.

**Client: Freddie Mac, McLean, VA**

**Duration: Mar 2018 – Dec 2020**

**Role: DevOps Engineer**

**Responsibilities:**

* Worked under Agile Methodology to reach organization goals.
* Designed, implemented, and optimized complex CI/CD pipelines in Azure DevOps, integrating automated testing, deployment, and release processes for the applications.
* Created 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.
* Installed and configured Ansible Configuration Management Tool with specific client requirements such as Create user/remove user, Install /Remove packages, and package updates, Configure multi nodes.
* Configured and implemented storage blobs and Azure files - Created Storage accounts, Configured the Content Delivery Network (CDN), custom domain, managing access and storage access key.
* Worked with Terraform key features such as Infrastructure as code, Execution plans, Resource Graphs, Change Automation.
* Worked on Azure Kubernetes Service, for deploying and managing Docker Containers as a container orchestration tool.
* Integrated Jenkins with Nexus, Ansible, and used CI/CD system of Jenkins on Kubernetes container environment, utilizing Kubernetes and Docker for the runtime environment for the CI/CD system to build and test and deploy.
* Created and managed Azure Web-Apps and provided access permission to Azure AD users.
* Virtualized the servers using the Docker for the test environments and dev-environments needs.
* Built a new CI pipeline for testing and deployment automation with Docker, Jenkins, and Ansible.
* Implemented and managed infrastructure as code (IAC) solutions using Azure Resource Manager templates and Terraform for scalable, efficient deployments.
* Created Continuous Build Process using Jenkins as Continuous integration tool.
* Implemented automated deployments of microservices to Azure Kubernetes Service (AKS), reducing manual intervention and enhancing application reliability.
* Implemented new projects build framework using Jenkins as build framework tools.
* Deployed application using Jenkins server and to troubleshoot build and release job failures, resolve, work with engineers on resolution.
* Developed automation scripts using Linux Shell script in supporting continuous build of WebLogic, Nginx, ActiveMQ.
* Worked on JIRA to create tickets, storyboarding, pulling reports from dashboard, planning sprints.
* Coordinated/assisted developers with establishing and applying appropriate branching, labeling/naming conventions using GIT source control.
* Established monitoring and logging solutions using Azure Monitor and ELK Stack, leading to faster issue detection and resolution.
* Used Nagios as an infrastructure monitoring tool to identify and resolve infrastructure problems before they affect critical processes.
* Experience in working Terraform, Hashicorp.
* Designed and executed automation scripts in PowerShell, Azure CLI, Python, and Bash for various DevOps tasks.
* Supported 24x7 production computing environments and provided on-call and weekend support.

**Environment:** Agile methodology, Python, JIRA, Jenkins, Docker, Azure services, Azure Kubernetes Service, Red Hat, ARM templates, Kubernetes.

**Client:** **Careator Technologies Pvt Ltd Hyderabad, India   
 Duration: Jun 2016 –Oct 2017**

**Role: Site Reliability Engineer**

**Responsibilities:**

* Deployed and monitored scalable infrastructure on Amazon web services (AWS) & configuration management using puppet and Ansible.
* Provisioned tasks-based roles on Ansible playbooks for parallel deployment on multiple servers and provisioning of infrastructure with custom build plugins and modules.
* Worked with projects using OpenShift client for Jenkins builds for various configurations.
* Provisioned AWS resources like EC2, VPC, EBS, AMI, S3 buckets, creation of subnets, and all other operational tasks using Ansible.
* Provisioned entire on-premises infrastructure on AWS cloud using CloudFormation scripts for high availability and fault tolerance.
* Setup a Continuous Delivery pipeline using Ansible playbooks, which consists of sonar Server and Jenkins, the Infrastructure to run these packages, and various software components like Maven.
* Developed and supported the RHEL based infrastructure in the cloud environment.
* Migrated on premise Oracle database to AWS RDS using S3 and AWS VPC Peering.
* Supported AWS cloud instance, including management and configuration of various AWS services.
* Worked on creating EC2 instances, updating security group and IAM policies.
* Configured the entire existing stack in service-oriented architecture using Red Hat OpenShift’ s Kubernetes platform.
* Worked with Ansible and CloudFormation scripts to build the base infrastructure with all necessary AWS services like VPC and EC2 for master/infra and app nodes.
* Performed Shell and Perl scripting for automotive tasks in Linux and wrote scripts on Python.
* Created S3 bucket ad updated the bucket policies, versioning, and lifecycle. Setup static web content on S3 bucket.
* Used Jenkins to test the workflow of retrieving and running puppet modules from GitHub onto different test slaves.

**Environment:** AWS EC2, S3, VPC, Auto scaling, cloud watch, GitHub, Red Hat Openshift, Ansible, IAM policies, VPC Peering.

**Client: IBM, Bangalore, India**

**Duration: Feb 2015 - May 2016**

**Role: Linux System Administrator**

**Responsibilities:**

* Performed installation, configuration and maintenance of Red hat Linux.
* Handling HP and DELL servers running on Red hat Linux and SUSE Linux 9.
* Linux kernel, memory upgrades and swaps area. Red hat Linux Kickstart Installation. Configuring DNS, DHCP, NIS, NFS in Red hat Linux and other Network Services.
* Performed daily backups, restoration of data as per requests using Veritas NetBackup.
* Worked on Servers consolidation and virtualization using HPSA vSphere virtual infrastructure, HPSA vSphere ESX and performed Network Monitoring Using Nagios tool.
* Network trouble shooting using ‘ndd’, 'traceroute', 'netstat', 'ifconfig' and 'snoop' etc.
* Monitored system performance, user management, system updates and disk & storage management.
* Created users, managed user permissions, maintained User & File System quota on Red hat Linux.
* Production support of Apache and JBoss including installation, configuration, and troubleshooting.
* Implemented RAID 1 and 5 on mission critical servers such as domain controllers and file servers.
* Setup of full networking services and protocols on UNIX, including NIS/NFS, DNS, SSH, DHCP, NIDS, TCP/IP, ARP, applications, kick-start, and print servers to ensure optimal networking, application, and printing functionality.
* Performed troubleshooting of CPU bottlenecks, memory bottlenecks and gave suggestions on performance improvements. Analyzed performance issues through PERFPMR.
* Managing systems routine backup, scheduling jobs like disabling and enabling cron jobs, enabling system logging, network logging of servers for maintenance, performance tuning, testing.
* Log file was managed for troubleshooting and probable errors. Responsible for reviewing all open tickets, resolving and closing any existing tickets.
* Document solutions for any issues that have not been discovered previously.

**Environment:** Red Hat Linux, DNS, DHCP, NFS, HPSA vSphere, Nagios, SSH, TCP/IP.