**Swetha R**

DevOps/Cloud Engineer

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**PROFESSIONAL SUMMARY:**

* Over 14 years of experience in IT industry with major focus on Azure, AWS Cloud/DevOps, Continuous Integration and Continuous Delivery (CI/CD pipeline), Build and Release management, Linux/Windows administration and support.
* Experience in configuring Azure Function App, Azure App services, Azure Application insights, Azure Application gateway, Azure DNS, Azure Traffic manager, Analyzing Azure Networks with Azure Network Watcher, and Implementing Azure Site Recovery, Azure Backup, Azure Key Vault and Azure Automation.
* Experience in Architecting and Implementing Azure Service Offering, such as Azure cloud services, Azure storage, IIS, Azure active directory, Azure resource management, Azure VM, Blob Storage, SQL Database, Azure Files and Azure Functions, Azure service bus and experience in Azure Availability and Scalability - Configured VMs availability sets using Azure portal to provide resiliency for IAAS based solution and scale sets using Azure Resource Manager to manage network traffic
* Experience in dealing with Windows Azure IaaS – Cloud Services, Virtual Networks, Virtual Machines, Resource Groups, Express Route, Traffic Manager, VPN, Load Balancing, Application Gateways, Virtual Machine Scale Sets and Auto-Scaling configuring SonarQube, Sonar cloud on VSTS pipeline with Azure app container services.
* Proficient in administrating Azure IaaS/PaaS services like Compute Azure Virtual Machines, Web and Worker roles, VNET, Network services, Azure DevOps, Active Directory, Azure Storage, Azure SQL Database, Fabric Controller, API Management, Scheduling, Autoscaling, PowerShell Automation, Azure Search, and notification hub.
* Expert in migrating On-premises infrastructure to Azure and involved in virtualization using (VMware), OpenStack services such as Nova Compute, Network, Swift Storage, Dashboard, image, Identity, Monitoring and infrastructure orchestration using containerization technologies like Docker and Kubernetes.
* Experience in using Azure service fabric to package, deploy, and manage scalable and reliable
* Microservices and containers. Also experience in developing different types of Azure Functions such
* as Http trigger, Timer trigger, service bus trigger, Event-Hub trigger.
* Experience working with Amazon Cloud Administration which includes services like: EC2, S3, EBS, VPC, ELB, SNS, RDS, IAM, Route 53, Auto scaling, Cloud Front, Cloud Watch, Cloud Trail, Cloud Formation, OPS Work, Security Groups by focusing on high-availability, fault tolerance.
* Designed, configured, and managed public/private cloud infrastructures utilizing Amazon Web Services (AWS) including EC2, Auto-Scaling in launching EC2 instances, Elastic Load Balancer, Elastic Beanstalk, S3, Glacier, Cloud Front, RDS, VPC, Direct Connect, Route53, Cloud Watch, Cloud Formation, IAM, SNS.
* Creating snapshots and Amazon machine images (AMIs) of the instances for backup and creating clone instances
* Experienced in design and application deployment of AWS infrastructure utilizing services such as EC2, RDS, VPC and managed network and security, Route 53, Direct Connect, IAM, Cloud Formation, AWS Ops Works (automate operations), Elastic Beanstalk, AWS S3, Amazon Glacier and Cloud Watch monitoring Management Gateway.
* Created, managed AWS CloudFormation Stack and integrated it with CloudTrail for monitoring the infrastructure. Stored versioned CloudFormation templates in GIT, visualized CloudFormation templates as diagrams and modified them with the AWS CloudFormation Designer.
* Designed multiple VPC’s and public/private subnets with required number of IP’s using CIDR blocks, Route Tables, Security groups and Elastic Load Balancer. To grant granular permissions to specific AWS Users, Groups and Roles by creating IAM policies. Automated AWS deployment and configuration tasks using Lambda.

**TECHNICAL SKILLS**

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| Operating Systems | Linux (RedHat 4/5/6/7, CentOS, SUSE), UNIX [Solaris 11/10/9, HP-UX 11.23, 11.31, IBM-AIX (4.3/5.x/6.x/7.x)], Windows,Ubuntu, CentOS. |
| Cloud Environments | Amazon Web Services(AWS), Microsoft Azure, OpenStack, Pivotal Cloud Foundry. |
| Application Servers &  Web Servers | Apache, Tomcat, WebLogic, WebSphere, JBoss, Nginx, Node.js. |
| Source/Version Control Tools | Git, Subversion(SVN), ClearCase |
| CI/CD & Build Tools | Jenkins, Bamboo, Hudson, Maven, ANT, Gradle. |
| Testing Tools | Selenium |
| Configuration Management Tools | Terraform, Ansible, Chef, Puppet, Maven, ANT. |
| Container and Orchestration tool | Docker, Docker Swarm, Kubernetes. |
| Monitoring Tools | Nagios, Splunk, Cloud watch, ELK (Elasticsearch, Logstash, Kibana), App Dynamics. |
| Networking/Protocol | TCP/IP, NIS, NFS, DNS, DHCP, WAN, SMTP, LAN, Telnet, HTTP, LDAP, POP3, FTP/TFTP,TLS/SSL, DHCP. |
| Virtualization | VMware Workstation, Oracle Virtual Box, Windows, Hyper-V, vCenter, vSphere. |
| Programming languages | Java, C, Python |
| Scripting Languages | Perl, Python, YAML, Ruby, PHP, Bash Shell scripting, PowerShell, JSON. |
| Bug Tracking Tools | Jira, Clear Quest. |
| Database | MySQL, NoSQL, PL/SQL, DynamoDB, Redshift, MongoDB Oracle 9i/10g/11g, IBM DB2 |

**PROFESSIONAL EXPERIENCE:**

**Client:** **Blue Planet, A CIENA division ,MD May 2023 - Present**

**Company: SeerSolutionInc, VA**

**Role: Senior Software Consultant |Technical Product Owner |Manager**

**Responsibilities:**

* Documented and maintained architectures, requirements, algorithms, interfaces and designs for CI/CD and Cloud ecosystems.
* Have experience and working knowledge of commonly used AWS components such as CloudFormation, EC2, S3, RDS, Object storage, IAM and VPC.
* Have familiarity with container technologies such as Docker and Kubernetes, Configuration Management, setting up build automation pipelines using Jenkins.
* Have experience in 1 click webapp deployment and configure a variety of SQL and NoSQL databases, web servers, application frameworks, caches etc.
* Practicing cross-functional collaboration while, leading the software development team from concept to customer delivery and support.
* Break down complex Architecture requirements through the full product Life Cycle (definition, development, delivery, maintenance, end-of-life) to Feature Stories.
* Act as a bridge between Applications and Infrastructure teams, fostering collaboration and ensuring seamless integration of technology solutions across the full-stack.
* Refactored old products to new architecture in order to improve their performances.
* Collaborated with the Customer Service teams, modified the process & reduced service time by 55%.
* Documented Standard Operating Procedures, Work Instructions, Configuration documents for the Software
* Defined Data Center(SDDC) - On Premise Cloudx, and Virtual Premise Cloudx environments.
* Ensuring end-to-end deliverable's/validation that should generally be produced for both regulated and non-regulated systems/applications are met, this includes: Compliance Analysis, Compliance Plan, Requirements Specification, Risk Assessment, Business Impact Assessment, Design Specifications, Test Protocols, Defect Forums, Test Report, Traceability Matrix, and Compliance Summary Report .
* Managed product backlog ,overseeing product team as it works on the Infrastructure services for RDI Team. Support the team with technology trends that impacts Product Roadmap.

**Environments:** Devops, Docker, Kubernetes, Azure Oracle 12c, Version one/Agility, HP ALM, MS office, SAFe,

Grafanna, ReadyAPI, GitLab, SharePoint, Smartsheet, Splunk

**Company: The Boeing Company, WA Nov 2018 – May 2023**

**Role: Sr. Cloud/DevOps Infrastructure Engineer**

**Responsibilities:**

* Designed, configured, and deployed Azure Automation Scripts for a multitude of applications utilizing the Azure stack (Including Compute, Web & Mobile, Blobs, ADF, Resource Groups, HD Insight Clusters, Azure SQL, Cloud Services, and ARM), Services and Utilities focusing on Automation.
* Built an application environment to operate at high availability in different Azure regions by using CDN, Azure Traffic Manager, App Services-Web Apps, Active Directory, Storage Queues, Cognitive Services, Azure Search, Storage Blobs, Redis cache, and SQL Database.
* Created and managed Azure AD (Active Directory) tenants manage users and groups and configure application integration with Azure AD. Integrate on-premises Windows AD with Azure AD, configure multi-factor authentication (MFA) and federated single sign-on (SSO).
* Created Azure Role-based Access Control (RBAC) to segregate duties within our team and grant only the amount of access to users that they need to perform their jobs.
* Created cloud modules for interacting with Azure services which provides the tools to easily create and orchestrate infrastructure on Azure and automated cloud-native applications in Azure using Azure Microservices such as Azure functions and Azure Kubernetes Services.
* Provisioned Azure resources of different providers Compute, Network, Service Fabric, using ARM template and implemented and maintained dev, test, staging and production environments leveraging infrastructure as code using Azure ARM templates (Infrastructure as code, JSON / YAML config).
* Created Network Security Groups (NSG) to filter the traffic to and from Azure Resources by configuring the Inbound and Outbound rules and associating them with Subnet and Network Interfaces.
* Worked on AWS to Azure migration, Jira to Azure DevOps Migration, GitHub to Azure DevOps Migration along with Experience in configuring and using PaaS offerings (like Azure Database services, Azure Kubernetes, Azure Containers, DNS, Application gateway rerouting, Application Insights, Azure Container Monitors, etc.).
* Involved in Serverless services (Azure Functions) where I created and configured HTTP Triggers in the Azure Functions with Application insights for monitoring and performing the load testing on the Applications using the Azure DevOps Test Plans, also configured Shared dashboards with required metrics and logs.
* Created CI/CD pipelines for .NET, python apps in Azure DevOps by integrating source codes GitHub, VSTS, and artifacts. Created deployment areas such as testing, pre-production and production environment in Kubernetes cluster.
* Managed Kubernetes charts using Helm, and built reproducible Kubernetes applications builds, managed Kubernetes manifest files and Helm package releases.
* Managed Docker Containers, Kubernetes Clusters, Mesos and implemented a production ready, load balanced, highly available, fault tolerant Kubernetes infrastructure and created Jenkins jobs to deploy applications to Kubernetes Cluster
* Deployed Kubernetes Cluster on Azure with master architecture and wrote many YAML files to create many services like pods, deployments, auto-scaling, load balancers, labels, health checks, Namespaces, Config Map, etc.
* Worked on implementing the Kubernetes Cluster API to manage, create, scale, upgrade and destroy of the Kubernetes clusters using a declarative API on both on-premises and Azure Cloud using BareMetal operator and Azure providers from CAPI.
* Created, managed, and performed container-based deployments using Docker images in the Docker Hub containing Middleware and Applications together and evaluated Kubernetes for Docker container orchestration.
* Worked on Kubernetes for creating new Projects, Services for load balancing, and adding them to Routes by accessing from outside, created Pods through new application and controlling, scaling, and troubleshooting pods through SSH, managed manifest files and releases of Helm charts.
* Integrated Jenkins with Docker container using Cloud Bees Docker pipeline plugin to drive all microservices builds out to the Docker Registry.
* Experienced with deployment automation of all the microservices to pull the image from the private Docker Registry and deploy to Docker Swarm Cluster using Ansible.
* configured Jenkins by identifying and installing required plug-ins. Wrote Seed. Groovy scripts to configure Build Jobs, Build Pipelines and by using Jenkins created a master and slave configuration to implement multiple parallel builds through a build farm.
* Managed and orchestrated complicated CloudFormation templates through Terraform and migrated enterprise infrastructure standard to Terraform.
* Integrated Terraform with Ansible and automated terraform life cycles with Ansible playbooks.
* Automated the tasks with Ansible Playbooks by using YAML functions and migrating the servers with the required configuration changes and testing and deploying the machines using Ansible Commands.
* Performed job scheduling using Ansible Tower. Automated various infrastructure activities like Continuous Deployment, Application Server setup, Stack monitoring using Ansible playbooks and has Integrated Ansible with Jenkins.

**Environment:** Azure, Azure AD, Azure SQL, CDN, ARM, Azure Traffic Manager, Azure Kubernetes, Azure DevOps.

**Client: US Department of education, MD May 2017 – Oct 2018  
Company: Tata Consultancy Services, India**

**Role: Sr. Cloud/DevOps Engineer**

**Responsibilities:**

* Configured VMs in Availability Sets using Azure Portal to provide resiliency for IaaS based solution and scale sets using Azure Resource Manager to manage network traffic.
* Implemented several POCs on Azure utilization and configured resources using Azure Key Vault to save high critical secrets and passwords. Also, worked on Azure App services, Azure storage, Azure SQL Database, Virtual Machines, Azure Key Vault, Azure AD, Azure search, and Azure Notification hub.
* Performed POT’s in Azure implementation and POC’s to implement in the Organization and involved in migration from AWS to Azure cloud.
* Migrated on prem to windows azure by building Azure disaster recovery environment, Azure Recovery Vault and Azure backups from the scratch using power shell script.
* Created and maintained Continuous Integration (CI) using tools like Azure DevOps (VSTS) over multiple environments to facilitate an agile development process which is automated and repeatable, enabling teams to safely deploy code in Azure Kubernetes Services (AKS) using Azure DevOps by YAML scripting.
* Acted as build and release engineer, deployed the services by VSTS (Azure DevOps) pipeline. Created and Maintained pipelines to manage the IAC for all the applications.
* Played a key role in the implementation of DevSecOps model across the organization and implemented security/vulnerability scans at multiple phases.
* Built servers using AWS includes importing necessary volumes, launching AWS EC2 instances, AWS S3 for object static webpages and created security groups, auto scaling, AWS load balancer, Route 53 and SNS as per architecture using Cloud formation JSON Templates.
* Created customized Amazon Machine Images (AMI) based on already existing AWS EC2 instances by creating image functionally snapshot which was used for disaster recovery as well. Also used Boto3 to automate, Auto scaling policy for automating auto-scaling groups, Elastic load balancer and launch configurations whenever there was high incoming traffic.
* Worked on multiple areas of Jenkins like Plugin Management, Securing Jenkins, Performance issues, Analytics, Scaling Jenkins, integrating Code Analysis and Test Phases to complete the CD pipelines within Jenkins.
* Implemented Jenkins pipeline jobs to create Azure Infrastructure from GitHub repositories containing Terraform code and created on-premises active directory authentication using automation with ansible play books.
* Developed Kubernetes manifests for various applications like Cassandra, Grafana, Prometheus, Kafka and setting up Kubernetes Clusters for running microservices and pushed microservices into production with Kubernetes backed Infrastructure.
* Worked on implementing clusters using Kubernetes and worked on creating pods, replication controllers, Name Spaces, deployments, labels, health checks, Ingress resources and Controllers by writing YAML files, integrated them using Calico SDN (software defined networking) and used Heapster monitoring platform on Kubernetes to report detailed resource usage information.
* Created Tekton pipelines in Kubernetes which was leveraged by developers to create and deploy images, manage version control of infrastructure, and perform easier rollbacks.
* Expertise in using Docker to containerize custom web applications and deploy them on Digital Ocean with Ubuntu instances through SWARM Cluster and to automate the application deployment in cloud using Vagrant.
* Configured and Integrated Docker container orchestration framework using Kubernetes by creating pods, deployments and used Python Scripts to schedule, deploy and manage container replicas onto a node cluster using Kubernetes.
* Migrated from Chef to Ansible and created Ansible playbooks which are the entry point for Ansible provisioning, where the automation is defined through tasks using YAML format to setup Continuous Delivery pipeline and ran Ansible Scripts to provision servers whenever required.
* Created Ansible roles in YAML and defined tasks, variables, files, handlers, and templates. Created inventory and configured the ansible files for parallel development in Ansible for automating the continuous delivery process.
* Profusely worked on GIT, Bitbucket to track changes made by different people in source code and configured GIT with Jenkins and schedule jobs using POLL SCM option.
* Implemented cluster services using Docker and Kubernetes to manage local deployments in Kubernetes and built a self-hosted Kubernetes cluster using Terraform and Ansible and deploying application containers.

**Environment:** Azure, ARM, Azure Key Vault, Azure SQL Database, VMs, Azure AD, AWS, Azure Cloud, Azure DevOps

**Company: Textron Aviation, KS Apr 2014 – Feb 2017  
Role: Sr. AWS Cloud Engineer**

**Responsibilities:**

* Setup and build AWS infrastructure using resources VPC, EC2, S3, RDS, Dynamo DB, IAM, EBS, Route53, SNS, SES, SQS, CloudWatch, CloudTrail, Security Group, Auto Scaling, and RDS using CloudFormation templates.
* Performed the automation deployments using AWS by creating the IAMs and used the code pipeline plugin to integrate Jenkins with AWS and created the EC2 instances to provide the virtual servers.
* Wrote Lambda functions in python for AWS Lambda and invoked python scripts for data transformations and analytics on large data sets in EMR clusters and AWS Kinesis data streams.
* Created all the required compatibility architectures and end-to-end migration plan for migrating 3500 Linux/Windows servers and 1500 applications into the AWS cloud using AWS Data Pipeline.
* Implemented ETL process to ingest analytical data stored in S3 into a Redshift data Warehouse cluster using AWS Lambda Microservices.
* Create resources in AWS to support infrastructure needs to the team using Terraform and Ansible tools.
* Used the Ansible Galaxy, a shared repository for the roles to download, share and manage the roles.
* Integrated Docker container-based test infrastructure to Jenkins CI test flow and set up build environment integrating with Git and Jira to trigger builds using WebHooks and Slave Machines.
* Developed and implemented automated CI/CD pipeline utilizing Docker for a micro service-based application.
* Developed CI/CD system with Jenkins on Kubernetes container environment, utilizing Kubernetes and Docker for the runtime environment for the CI/CD system to build, test and deploy.
* Working on encrypting Terraform secrets to Git vault
* Setup Jenkins pipeline for Terraform automation and Ansible automation, enable build triggers to apply changes to AWS platform.
* Maintain Terraform and Ansible code in GitHub, create repository for each AWS account like development, test, prod-parallel and production.
* Create Kafka clusters and provide producer endpoint to application teams to write to the Kafka topics.
* Provide Kubernetes cluster to create namespaces to orchestrate Docker containers across the accounts.
* Enable Cloud security using IAM roles and policies and provide users role-based access to limit actions performed in AWS console or CLI
* Implemented AWS solutions using EC2, S3, RDS, EBS, Elastic Load Balancer, Auto scaling groups
* Working on creating Amazon EC2 instances and setting up security groups.
* Perform data encryption using AWS KMS keys to secure data stored in various storages like S3, RDS, EFS and EBS.

**Environment:** AWS, Linux Redhat 7, Terraform, Ansible, GitHub, Jenkins, Docker, Kubernetes, Kafka, and other security tools to support cloud Infrastructure.

**Company: DRDO, Hyd Apr 2012 – Mar 2014  
Role: Build and Release Engineer**

**Responsibilities:**

* Installed Jenkins on a Linux machine and created a master and slave configuration through a build farm for implementation of multiple parallel builds.
* Coordinate and assist developers with establishing and applying appropriate branching, labeling/naming conventions using GIT source control. Creating user level of access for related GitHub project directories to the code changes.
* Responsible for applying the Corporation's Software Configuration Management processes to projects, setting up and maintaining TFS/GIT/GitHub infrastructure and supporting a continuous delivery model by automating software build and package migration processes.
* Creating and Implementing branching and merging strategy with multiple branches and used Git as source code management repository to keep track of version changes
* Did upgrades to applications using Puppet manifests. Used Puppet to make sure all the Jenkins slaves are in sync. Developed and implemented an automated Linux infrastructure using Puppet.
* Performed the automation using Puppet Configuration management. Wrote Puppet modules and manifest files from scratch and expertise in Puppet Administration and Puppet Web tools for deploying consistent infrastructure code, Profile and Class level across multiple environments.
* Developed MAVEN scripts to build the projects and Migrated ANT to MAVEN Projects.
* Worked on update and merge password authentication issues in Jenkins and Jira and involved in implementing Atlassian Tool Suite (Jira, Jenkins) especially for the issue tracking application (Jira).
* Assisted 24x7 on-call supports in debugging and fixing issues related to Linux, Solaris, HP-UX Installation/Maintenance of Hardware/Software in Production, Development & Test Environment as an integral part of the Unix/Linux (RHEL/SUSE/SOLARIS/HP-UX/AIX) Support team.

**Environment:** Jenkins, GIT, Git Hub, Puppet, Maven.

**Company: Gate Aerospace Forum, Hyd May 2010 – Mar 2012**

**Role: Linux System Administrator**

**Responsibilities:**

* Installed and configured various services like DHCP, NFS, DNS, Apache Web Server, NIS, LDAP, Samba, SSH, FTP/SFTP, Send mail/SMTP, Telnet, RPM Package Management, File System Management.
* Develop and maintain cooperative and collaborative relationships with networking, storage, software development, and project management teams.
* Installing & Configuring Printers with CUPS and LVM’s. Managing user accounts, Groups, printers, file systems and security and creating new file systems, mounting file systems, and unmounting file systems.
* Installed, upgraded, and configured RHEL and SUN Solaris.
* Installed/Configured WebLogic Application Server.
* Installation and configuration of VCS5.0/VCSOne on various Red Hat and Sun Servers.
* Installation and configuration of Oracle RAC on Linux cluster nodes.
* Monitoring system performance, Server load and bandwidth issues.
* Worked on Nagios tool for monitoring servers, switching, and send data via network through specific plugins. Performed activities using Nagios both on Linux and windows systems.
* Conducted performance testing of Apache and Tomcat management services.
* Configuration and Administration of Apache Web Server and SSL certificates and involved in configuration
* of Virtual Hosts for Apache HTTP Server.
* User & Disk Management of Linux user accounts, groups, directories, file permissions.
* Installed and Configure Multi-pathing for SAN disks in 3PAR Power path.
* Reviewing system logs files for errors, settings up CRON jobs for backups and monitoring process.
* Experience in Install & Configure JBOSS Application Server in test environment.
* Regularly manage backup process for Server and Client data.

**Environment:** RedHat Linux, Apache/Tomcat, MySQL, UNIX, and Nagios.

**Company: Indian Institute of Technology- kanpur May 2008 – Feb 2010**

**Role: System Administrator**

**Responsibilities:**

* Installation of operating systems and configuration of kernel parameters for Linux/Unix servers.
* Worked on configuring network interfaces, assigning static routes and hostnames.
* Used TAR tool in archive management for files and directories, also used gzip and bzip2 compression of files.
* Worked on creating, maintaining and troubleshooting Disk partitioning, LVM and file management.
* Automated updating and maintenance process in production environment using shell scripts.
* Installed, updated, and configured the necessary packages using the RPM and YUM software/package management.
* Supported data management through on-site &amp; off-site storage and retrieval service.
* Administered local and remote servers using SSH (secure shell) tool on daily basis.

**Environment:** RedHat Linux, LDAP,DNS.

**EDUCATION**

**Bachelors of Technology, Aeronautical Engineering** JNTU, India  **May 2008**

**CERTIFICATIONS**

* [SAFE Product Owner & Product Manager](https://www.credly.com/badges/80995dba-a864-46cb-8a78-4a2fbba090b4/linked_in_profile)
* [Microsoft Fundamentals -AZ-900](https://learn.microsoft.com/en-us/users/swetharamshetty-7159/credentials/387c256e2f585c26)
* [Microsoft Azure Administrator Associate](https://learn.microsoft.com/en-us/users/swetharamshetty-7159/credentials/7e89a146b7c72762)
* [Microsoft DevOps Engineer Expert](https://learn.microsoft.com/en-us/users/swetharamshetty-7159/credentials/e6f7a0d7e4b23b2b)
* [Certified Kubernetes Administrator](https://ti-user-certificates.s3.amazonaws.com/e0df7fbf-a057-42af-8a1f-590912be5460/38e7185a-e9b7-4399-9971-4b8f94b11f23-swetha-ramshetty-468d9c9d-08a1-4ccb-a105-dfa54541dc7b-certificate.pdf)