**Surendra Chennareddy**

**SUMMARY**:

* **AWS Solutions Architect Associate** with **11** years of experience in IT industry as a **Sr.SRE (Site Reliability Engineer)** with major focus on **AWS**, **AZURE**, **CI/CD**(**Jenkins** and **Azure DevOps**)pipeline and virtualization technologies. Experienced in tools like **Terraform**, **Ansible**, **Docker**, **Kubernetes**, several scripting languages, and monitoring tools.
* Experienced in branching, merging, and maintaining the versions using SCM tools like **Git** and **GitHub** on windows and Linux platform**.**
* Expertise in Architecting and Implementing **Azure Service** Offering, such as **Azure cloud services**, **Azure storage**, **IIS**, **Azure Active Directory** (AD), **Azure Resource Manager** (ARM), **Azure Storage**, **Azure Blob Storage**, **Azure VMs**, **SQL Database**, **Azure Functions**, **Azure Service Fabric**, **Azure Monitor**, and **Azure Service Bus.**
* Experienced in **Azure Site Recovery** and **Azure Backup** Installation and Configuration of the Azure Backup agent and virtual machine backup, Enabled Azure Virtual machine backup from the Vault and configured the **Azure Site Recovery** (ASR).
* Extensively worked on **AWS** Cloud services like **EC2**, **VPC**, **IAM**, **RDS**, **ELB**, **EMR**, **ECS**, **Auto - Scaling**, **S3**, Cloud Front, Glacier, Elastic Beanstalk, Lambda, Elastic Cache, Route53, Ops Works, Cloud Watch, Cloud Formation, RedShift, DynamoDB, SNS, SQS, SES, Kinesis Firehose, Lambda, Cognito IAM.
* Experienced with Terraform key features such as Infrastructure as code, Execution plans, Resource Graphs, Change Automation. Collaborate in the automation of **AWS** infrastructure via Terraform and **JENKINS** -services configuration via **Ansible**.
* Extensively used to develop strategy in various DevOps tools like**SUBVERSION, GIT, GITHUB, MAVEN, JENKINS,DOCKER, KUBERNETES, NAGIOS**Along with implementing them in cloud environment like **AWS**.
* Experienced in using larger environments **ANSIBLE**for the use of configuration management and ensure scalability across multiple Linux environment.
* Experienced in Using **ANT** and **PYTHON** scripts to automate the Build and Deployment process.
* Experienced in core scripting languages and advanced skills in programming languages (**Python**, **Node JS**, **Java**) with ability to build test coverage for all software being developed.
* Configured **JENKINS** as a CI engine to build and promote applications to **QA, UAT** and Staging to **LINUX** environments.
* Experienced in Performs stress, load, **regression**, and **performance testing** to validate production readiness of software applications and infrastructure for stability and performance.
* Experienced with a major Application Performance Monitoring (**APM**) tool (**AppDynamics**, **New Relic**)and Networking skills and protocols (**HTTP**, **TLS**, **SSH**, **DNS**).
* Experienced with data technologies (**NoSQL**, **MSSQL**, **MySQL**, Redis, **Elastic**) including being able to perform basic setup, configuration, and troubleshooting.
* Experienced inPerformed the tests in **JMeter** and **Dynatrace**.
* Familiarity and practical experience with JavaScript libraries or frameworks such as Angular 7/8/9
* Experienced indelivering analytics and automation for unified observability and security by using **Dynatrace**.
* Extensive used build and automation tools like **ANT** and **MAVEN** for building the projectand deploying the artifacts which were generated from the source codein the process.
* Developed **PYTHON** script that allows access tokens of artifactory to send images from **DOCKER** registry.
* Experienced in **Java** to use **WebDriver** API library to write automation scripting with Cucumber Feature and Scenario.
* Experience with containerization of applications using **DOCKER**.
* Experienced in Creating, scheduling and run the scenarios using **JMeter** and generate graphs.
* Experienced in Creating and executing**JMeter** scripts for performance testing.
* Experienced in building out Application Performance Monitoring solutions with **Dynatrace**and **New Relic**.
* Experience in implementing the following applications and services, or functionally equivalent tool sets: Data Dog, **Splunk** and **New Relic**.
* Monitored applications running on the **AWS** by using Cloud watch.
* Involved in the python development of actuarial modules to integrate with the SPA application Angular.
* Experience using **NAGIOS** monitoring system and different Bug Tracking Tools like Remedy, Jira, ServiceNow and Clear Quest. Designed, deployed, and coordinated with different teams to enhance ELK platform and took ownership of new technologies.
* Experience in using tools like **Docker Compose**, **Kubernetes**, for **Orchestrating** and deploying the services related to the **Containers** and with container-based deployments using **Docker**, working with **Docker images, Docker hub.**
* Experience with **Kubernetes** architecture and design, troubleshooting issues and multi-regional deployment models and patterns for large-scale applications.
* Experience **Docker** and **Kubernetes** as the build, test, and deployment runtime environments for the CI/CD

System.

* Knowledge of testing frameworks like **JUNIT** and **SELENIUM** as well as defect management solutions like **REMEDY, JIRA, and SERVICE NOW.** Monitoring using **ANSIBLE** Playbooks and has integrated ANSIBLE with JENKINS.
* Configured, Managed Monitoring Tools such as **NAGIOS, SPLUNK** for Resource Monitoring, Network Monitoring, Log Trace Monitoring.
* Experienced in writing Shell Scripts in Bash and Corn tab in **LINUX** to automate the tasks.
* Expertise in tracking tool **JIRA** and triaged the issues and maintained bugs using **JIRA** tool.
* Good understanding of the principles and best practices of Software Configuration Management (**SCM**) in **Agile, scrum,** and **Waterfall methodologies**.
* Strong analytical and **problem-solving** skills, along with excellent ability to work with cross functional teams and stakeholders.

**TECHNICAL SKILLS:**

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| --- | --- |
| **Operating Systems** | Windows, UNIX, Ubuntu, Redhat/CentOS Linux. |
| **Configuration Management Tools** | Chef, Puppet, Ansible and Terraform |
| **Automation Tools** | Jenkins, Azure Devops |
| **Build Tools** | ANT, MAVEN |
| **Continuous Deployment** | Artifactory, Nexus, Jboss |
| **Version Control Tools** | Subversion, Git, TFS, Bit Bucket |
| **Monitoring Tools** | Nagios, Splunk, cloud watch, Dynatrace and Grafana |
| **Virtualization** | Vagrant, Docker, ESXi, Kubernetes, virtual Box and VMware. |
| **Scripting** | Shell, Bash, Perl, Ruby and Python. |
| **Container Management Tools** | Docker, kubernetes, Mesos, Aws ECS |
| **Operating Systems** | Cent OS, Ubuntu, RHEL and Windows. |
| **Programming languages** | C++, Python, XML, HTML,Angular, Shell Scripting, YAML, Ruby and PowerShell |
| **Web/Application Servers** | Web logic, Web sphere, Apache Tomcat, Nginx |
| **Databases** | My SQL, MS SQL, Oracle, PostgreSql, Dynamo DB, Cassandra |
| **Bug Tracking Tools** | JIRA, Remedy, HP Quality Center, Bugzilla |

**CERTIFICATIONS:**

* I have completed **AWS Solutions Architect Associate** Certification (**AWS Certified**).

**PROFESSIONAL EXPERIENCE:**

* Working as **Sr.SRE** (**Site Reliability Engineer**) in **H-E-B** at**Texas**, **USA** from **June 2023** to **Till Date**.
* Worked as **Sr.SRE**/**DevOps Engineer** in **First National Bank**at**Johannesburg**, **South Africa** from **October 2019** to **March 2023**.
* Worked as **Senior System Analyst** in **Sonata Software Pvt Ltd** at **Hyderabad, India** from **July 2014** to **July 2019**.
* Worked as **Consultant** in **Vcentric Technologies Pvt Ltd** at **Hyderabad, India from July 2012** to **July 2014.**

**Project 1:**

**Client: H-E-B,Texas, USA June2023 – Till date**

**Role: Sr.SRE**

**Responsibilities:**

* Involved in migration from **SVN** to **GIT** repos and worked with Linux sys admins for the same**.**
* Responsible for **Availability**, **Reliability** and **Scalability** of H-E-B Services & Tools.
* Systems administration expertise with **Linux** and **Windows** platforms, including **OS performance monitoring**, setup, **configuration**, **tuning** and **troubleshooting**.
* Implemented and maintained Azure Gateway solutions, optimizing network connectivity and routing for cloud resources.
* Managed Azure infrastructure, including virtual machines, virtual networks, and storage accounts, adhering to best practices for scalability and performance.
* Design, develop, and maintain chaos engineering tools using Golang, GraphQL, and Elasticsearch to inject faults and simulate failure scenarios in our systems.
* Implementation and delivery of SRE tools in CI/CD pipeline utilizing **GitHub**, **Jenkins**, **JIRA**, **Confluence** and other tools.
* Implemented VNet integration for AKS clusters to securely connect AKS pods to Azure VNets.
* Delivery and implementation of **SRE** Analytics, log management and automation solutions, Managing SLA’s,project resource and delivery management.
* Demonstrate exceptional troubleshooting methodology, including the ability to author and instruct new methodologies to the **SRE** team.
* Worked with **Data dog** and Prometheus to create actionable alerts and establish baseline performance metrics for critical services.
* Managed end-to-end application lifecycle of **Adobe Experience Manager (AEM)** including installation, configuration, deployment, and ongoing maintenance.
* Provided expert-level support to ensure high availability, reliability, and performance of AEM systems.
* Implemented best practices for AEM application deployment, performance optimization, and troubleshooting
* Ownership of **SRE** monitoring and Analytics Platform as a service (**PaaS**).
* Implemented front-end solutions using Angular and bootstrap
* Measure and optimize system performance applying **Site Reliability Engineer** principles and managed QA and production deployments.
* Conducted regular system audits and performance tuning to enhance AEM application efficiency.
* Involved in Creation a **SPLUNK** search processing Language (SPL) queries, reports and dashboards.
* Involved in Performing the tests in **JMeter** and **Dynatrace.**
* Created custom Azure DevOps pipeline tasks in Go to streamline build and deployment processes.
* Involved in defined Release Process & Policy for projects early in **SDLC.**
* Set up VNet service endpoints to securely access Azure Data Factory services from within a virtual network.
* Independently resolve moderately to highly complex system and application incidents.
* Able to evaluate new systems and/or infrastructure solutions for technical feasibility against known requirements and standards.
* Experience in API Automation (REST/SOAP).Proven experience in API testing, including both manual and automated testing.
* Preferred Experience in Kubernetes Eco System and Kubernetes Operators development using operator sdk/kubebuilder/client-go.
* Solid understanding of API architecture, RESTful principles, HTTP methods, and API authentication.
* Involved in designing and measuring service level indicators **(SLIs**) and objectives **(SLOs**).
* Configured private endpoints for Azure services like Azure SQL Database, Azure Storage, and Azure Cosmos DB, enhancing security and network isolation.
* Monitoring cloud-based systems (**Microsoft Azure**).
* Handling operational issues such as production failures, infrastructure problems, security, and monitoring (**APM**) (**ServiceNow**, AppDynamics, AppInsights, **Grafana**, **Splunk**).
* Extensively worked on **JMeter** to create Thread Groups and test Web Application for various loads on key business scenarios.
* Configured VNet injection for Azure Databricks clusters to ensure that they run within a virtual network for network isolation and secure access to on-premises resources.
* Responsible for ensuring the **availability**, **performance**, and **scalability** of an application.
* Monitoring systems and create plans for responding to incidents, handle unexpected outages or performance issues.
* Experienced with capacity planning and **performance tuning** to ensure that the site can handle increased traffic without issue.
* Leveraged Terraform to define and provision Azure resources as code, enabling infrastructure automation and versioning.
* Deep understanding of how **distributedsystems** work to be able to troubleshoot and optimize them.
* Deep understanding of how different types of **databases** work to be able to effectively troubleshoot any issues that may arise.
* Working with **Java** to use **Selenium**-**WebDriver** API library to write automation scripting with **Cucumber** Feature and Scenario.
* Implemented Terraform scripts to provision and manage Azure resources such as VMs, virtual networks, and databases.
* Hands-on experience with API testing tools (e.g., Postman, REST Assured, SoapUI) and automation frameworks.
* Expertise with orchestration tools like **kuberenets** functionality, **kubectl** commands and **docker**.
* Demonstrated ability to provision any environment required (for Dev/Test)Cloud security practices.
* working with API Gateways like **Kong**, **nginx** based systems.
* Run the production environment by monitoring availability and taking a holistic view of system health.
* Build monitoring alerts and incident response processes Improve operational processes and team practices, Coding infrastructure automation across the **CI/CD** pipeline.
* Used **Gitlab** for version control and to run and deploy CI/CD pipelines.
* Extensively worked on **CI/CD** pipeline for code deployment by engaging tools like **Gitlab, Jenkins and Code Pipeline**. Developed code to automate the stages in pipeline in lab and prod environments.
* Worked on automating the scripts and developing the code to improve efficient usage of resources and performance.
* Developed **Python** code extensively to automate various applications across teams and improve the client output formatting and options handling.
* Experience in **Kafka** enables the storage and processing of data streams over a distributed streaming platform.
* Stay current on industry trends and advancements in chaos engineering, and continuously explore opportunities to enhance our tools and processes.
* Work closely with the engineering, operations, and QA teams to ensure that our chaos engineering practices are aligned with the overall objectives of our organization.
* Strong development experience in Golang.
* Preferred Experience in Kubernetes Eco System and Kubernetes Operators development using operator sdk/kubebuilder/client-go.
* experience in building and architecting software solutions for Kubernetes using Golang Operators.
* Responsible for the building and deploying the **artifacts** into DEV, QA, UAT and PRODEnvironments.
* Design, develop, and maintain chaos engineering tools using Golang, GraphQL, and Elasticsearch to inject faults and simulate failure scenarios in our systems.
* Developed script for monitoring servers.
* Worked on **JIRA** to keep track of the tasks progress and to document the updates on the work accomplished.
* Experience in **Kafka** developers with different interfaces to help them write data to kafka clusters, read data or import and export data to and from third-party systems.
* Configured GitLab CI/CD pipelines to automate Azure resource provisioning and application deployments, ensuring consistency and reliability in the release process.
* Used Ansible playbooks to automate the provisioning and configuration of Azure resources, ensuring consistency and reproducibility in infrastructure deployments.
* Maintained Azure resources using Terraform.,onfigured and managed Azure Active Directory (Azure AD) identities and role-based access control (RBAC) for data lake resources.
* Implemented fine-grained access control using Azure AD Managed Service Identity (MSI) and Access Control Lists (ACLs) to restrict data access.
* Installed, set up, and maintained monitoring tools like New Relic, Splunk, and Grafana to track the performance of various apps and evaluate their efficiency and load distribution.
* Configured alarms in **CloudWatch** service for tracking the CPU Utilization, server’s performance, diskusage.

**Project 2:**

**Client: First National Bank-JNB, South Africa October 2019 – March 2023**

**Role: Sr.SRE**

**Responsibilities:**

* Gathering Information from the Clients and providing consultation by performing POC’s and set up the Build/Deployment and Release Management.
* Architected High Availability applications on **AWS**using Availability Zones and Availability Regions.
* Implemented Continuous Integration and Continuous Delivery (**CI & CD)** Process stack using **AWS, GITHUB/GIT, Docker, Jenkins, Artifactory** and **Ansible.**
* Implement System Monitoring and Alerts using**AWS Cloud Watch.**
* Used Cloud Watch for monitoring server’s, CPU performance and memory utilization.
* Implement systems that are highly available, scalable, and self-healing on the AWS platform.
* Created the **AWS VPC** network for the Installed Instances and configured the Security Groups and Elastic IP's accordingly.
* Setting up databases in AWS using **RDS, storage using S3 buckets** and configuring instance backups to S3 bucket.
* Developed the features and automating test scenarios, step definitions for **BDD** (Behavior Driven Development) using **Cucumber**.
* Provided training and support to content editors and administrators, enabling them to effectively use AEM's features and functionalities.
* Implemented security measures within AEM, ensuring data privacy, access control, and protection against vulnerabilities and threats.
* Managed version control for AEM assets and content, enabling rollback to previous versions and ensuring content traceability.
* Maintained comprehensive documentation for AEM projects, including technical specifications, user guides, and best practices.
* Configured **Elastic Load Balancers** with EC2 Auto scaling groups.
* primary point of contact for all production issues and effectively resolved them with time drivernsenarios.
* Build and configure a virtual data center in the Amazon Web Services cloud-paas to support Enterprise Data Warehouse hosting including Virtual Private Cloud (VPC), Public and Private Subnets, Security Groups, Route Tables, Elastic Load Balancer.
* Implemented front-end solutions using Angular and bootstrap.
* Extensively worked on **Jenkins** for continuous integration and for End-to-End automation for all build and deployments.
* Integrated maven with Jenkins for the builds as the Continuous Integration process.
* Setting up the build and deployment automation for Java base project by using **JENKINS** and **MAVEN**.
* Configured AWS cloud using Terraform and done continuous deployment through Jenkins and automated cloud formation using **Terraform**.
* Collaborated closely with cross-functional teams, providing technical expertise and support in AEM and Java-related projects and initiatives.
* Demonstrated expertise in troubleshooting and resolving complex issues in AEM and Java applications, ensuring seamless operation of digital platforms.
* Refined automation components with scripting and configuration management **Ansible**.
* Monitored RDS instances and Elastic Load Balancer for performance and availability.
* Implemented OWASP framework to ensure coding security by validating best coding practices to prevent while underlines in the application as well as infrastructure like SQL injection and potential security vulnerabilities.
* Working with **Java** to use **Selenium**-**WebDriver** API library to write automation scripting with **Cucumber** Feature and Scenario.
* Automated updating and maintenance process in production environment using **Ruby** and **pythonscripts**.
* Wrote Cloud Formation scripts to provision and configure stack resources.
* GIT administration like providing access for branches and **GIT repositories.**
* Worked on **Nagios** for Load Balancing and Controlling Flow of Traffic. Used Nagios log server for network device log collection, network device log visualization, Nagios Network analyzer for net flow collection and analysis of IP transactions.Used EC2 as virtual servers to host **GIT, Jenkins,** and configuration management tool like **Ansible**. Converted slow and manual procedures to dynamic API generated procedures.
* Used **Ansible Tower**, which provides an easy-to-use dashboard and role-based access control, so that it's easier to allow individual teams access to use Ansible for their deployments.
* Worked on docker containers snapshots, uninstalling images, and managing docker volumes.
* Worked with application teams to improve the performance of application by increasing throughput by 30%
* Creating **CloudWatch** alerts for instance and using them in Auto scaling launch configurations.
* Automated the Applications and **MYSQL, NOSQL** container deployment in Docker using Python and monitoring of these containers using Nagios.
* Worked on APIs using **Kubernetes** to manage and specify the copies of the containers to run the actual servers in the cloud. Scheduled, deployed, and managed container replicas onto a node cluster using Kubernetes.
* Responsible for build and deployment automation using VM Ware ESX, Docker containers and Chef.
* Launching Amazon EC2 Cloud Instances using Amazon Images (**Linux/ Ubuntu)** and configuring launched instances with respect to specific applications.
* Rolled out Chef to all servers and used the chef node database to drive host configuration, DNS zones, monitoring, backups.
* Setup on workstations a variety of chef **cookbooks, recipes, templates, and attributes** for distribution to different chef nodes.
* Implemented Cloud Trail to capture the events related to **API** calls made to AWS infrastructure.
* Created Python Scripts to Automate AWS services which include web servers, **ELB, Cloud front Distribution,** database, **EC2** and database security groups**, S3 bucket** and application configuration, this Script creates stacks, single servers or joins web servers to stacks.
* Configured and implemented the overall **JIRA** technical strategy for ticketing.
* Given support for Development and Production environments.

**Project 3:**

**Client: TUI, UK July 2014 – July 2019**

**Role: DevOps Engineer/SRE**

**Responsibilities:**

* Designing, planning and implementation for existing On-Prem applications to AZURE Cloud (ARM)
* Configured and deployed Azure Automation Scripts utilizing Azure stack (Compute, Web and Mobile, Blobs, ADF, Resource Groups, Azure Data Lake, HDInsight Clusters, Azure Data Factory, Azure SQL, Cloud Services and ARM), Services and Utilities focusing on Automation.
* Deploying infrastructure with **Terraform**, **Ansible** and **Azure DevOps** tools to target clouds **Microsoft Azure** (Azure Kubernetes Services, Azure Red Hat Open shift, Network security groups, Key Vaults, VNets, Application gateways, Load balancers, PostgreSQL, Storage Accounts, etc.) and **IBM Cloud** (IBM Kubernetes Service, IBM Open shift, Virtual Private Cloud, Access Control List, Key Protect, Load balancers, Cloud Object Store, PostgreSQL, etc.).
* Integration of **Azure DevOps** with **GitHub Enterprise**.
* Definition of **GitHub branching strategy**.
* Enablement of Depend Bot for vulnerability scanning in **GitHub Enterprise**.
* Application Load Balancer configuration (pools, health checks, listeners) as well as Application gateways.
* Setting vnets, subnets, VPC and other network concepts in both clouds **MicrosoftAzure** and **IBM Cloud**.
* Deploying Virtual Machines Scale Sets into secure VNets and subnets using network security groups.
* Linux Administration (LVM, user management, updates/upgrades, monitoring, etc.)
* Used several Jenkins plugins to automate processes including job creation, creation of metrics, and used the AWS EC2 plugin. Jenkins-based automated testing of web applications.
* **Kubernetes/Open shift** administration setting up security setting like image provenance, security context constraints, network policies, RBAC, Ingress SSL certificates among others.
* Troubleshooted and resolved the issues that arise at the time of deployment by analyzing **Helm** managed releases along with a analysis of **helm** charts to maintain the consistency of the application
* Created documentation and runbooks for Argo CD deployment processes on the pre existing projects along with reviewing the architecture and providing recommendations on existing **Argo cd** projects
* Writing and maintaining YAML files for **Kubernetes/Open shift** components like deployments, secrets, configmaps, HPA, Ingress, jobs, cronjobs, etc.
* Monitoring **Kubernetes/Open shift** cluster using **Grafana/Prometheus**.
* Writing **Docker files** to create custom images for micro services written in different languages.
* Setting up pipelines using **Azure DevOps** configuring self-hosted agents, azure pools and writing custom yaml files for deployments to cloud environment as well as **Kubernetes/Open shift** clusters.
* Working with team from around the globe following **agile** methodology using **Azure DevOps Dashboards**.
* Created specialized Python scripts to automate Open Shift/Kubernetes admin activities and lessen manual labor.
* Production application support experience troubleshooting critical problems.

**Project4:**

**Client: HP, India July 2012 – July 2014**

**Role: Build Engineer/System Admin**

**Responsibilities:**

* Responsible for maintaining of Linux operating systems such as **RHEL, CentOS, Ubuntu**. Responsible for Day-to-day systems administration tasks in **Solaris, Red hat Linux and AIX** servers.
* Working with project works and implement and handover to Tier2 team and will support for those applications.
* Working with customer and resolve the problems within the SLA.
* Build Java and .Net applications using **ANT** and **Nugget**.
* Setting up and maintaining RHEL, SUSE, Solaris, and Cento’s servers for new and ongoing projects using standalone and network installation methods.
* Develops and maintains Linux Kernels (**CentOS and RHEL**), application servers – **JBoss, Tomcat and Apache, Scripting-Shell scripting, Infrastructure automation.**
* Managed system storage requirements, access controls and permissions.
* Make sure the backup of the whole infrastructure is taken every day before starting of the day
* Worked on **LDAP** Server and **SSL** Certificates, two web security technologies. worked on assigning static routes and host names, as well as configuring the network interface and TCP/IP.
* Design, configuration, administration, and development of various open-source apps and LAMP (Linux Apache **MySQL** PHP)-based architecture.
* Managing system processes and scheduling processes with the **CRON** utility
* Learning the new industry technologies and best practices that are used in **DevOps** environments and recommending newly available technologies to the team.
* Responsible for managing different environments like development stage and production by checking if the resources are configured correctly in all the environments.
* Documenting the steps of the infrastructure that is already existing and participating in on-call rotation along with handling basic production issues.
* Installed, Configured, Managed Monitoring Tools such as Nagios for Resource Monitoring/Network Monitoring/Log Trace Monitoring.