**Venkata Nageswara Rao **

Certificate AWS-ADEV-11123

**DevOps/Cloud Engineer**

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**PROFESSIONAL SUMMARY**

* Overall **9+ years** of extensive experience in Automating, configuring and deploying instances on cloud environments and Data centers. Experience in the areas of **DevOps,** CI/CD Pipeline, Build and release management, **AWS/Azure and Linux/Windows Administration**.
* Involved in designing and deploying applications utilizing almost all the**AWS** stack (Including **EC2, Route53, S3, ELB, EBS, VPC, RDS, Dynamo DB, SNS, SQS, IAM, KMS, Lambda, Kinesis**) and focusing on **high-availability, fault tolerance** and **auto-scaling** in**AWS Cloud Formation,**deployment services (**OpsWorks and Cloud Formation**) and security practices (**IAM, Cloud Watch, Cloud Trail**).
* Experienced in cloud automation using**, AWS cloud Formation Templates**, **Chef, Puppet**.
* Implemented multiple **CI/CD** pipelines as part of DevOps role for on-premises and cloud-based software using **Jenkins, Chef and AWS/Docker.**
* Involved heavily in setting up the **CI/CD** pipeline using **Jenkins, Maven, Nexus, GitHub, Puppet, Terra form** and **AWS**
* Configured and managed Elastic Load Balancing **(ELB)** to implement fault tolerance and avoid single point of failure of applications, thus providing high reliability and efficient usage.
* Experienced in **Azure IAAS**, Provisioning VM's, Virtual Hard disks, Virtual Networks, Deploying Web Apps and Creating Web-Jobs, **Azure Windows server** 2008/2012/R2, Microsoft SQL Server, Microsoft Visual Studio, Windows Power Shell, Cloud infrastructure.
* **Kubernetes**is being used to orchestrate the deployment, scaling and management of **Docker** Containers.
* Used **Jenkins** **pipelines** to drive all Micro services builds out to the **Docker** **registry** and then deployed to **Kubernetes**, Created **Pods** and managed using **Kubernetes**
* Building/Maintaining **Docker** container clusters managed by **Kubernetes** **Linux**, **Bash**, **GIT**, **Docker**, on **GCP (Google Cloud Platform)**. Utilized **Kubernetes** and **Docker** for the runtime environment of the **CI**/**CD** system to build, test deploy.
* **AWS** and **OpenStack** to provision new machines for clients. **S3** Storage Services on **AWS**
* Developed microservice on boarding tools leveraging **Python** and **Jenkins** allowing for easy creation and maintenance of build jobs and **Kubernetes** deploy and services.
* Production experience in large environments using configuration management tools like **Chef**, **Ansible** and **Puppet** supporting **Chef** Environment with 500+ servers and involved in developing **manifests**. Developed Chef **Cookbooks** to manage systems configuration.
* Written **Chef Cookbooks**, recipes to automate installation of Middleware Infrastructure like **Apache Tomcat**, **JDK** and configuration tasks for new environments etc.
* Experience in developing **puppet modules** (blue prints) for installation, configuration and continuous integration (**CI**) using combination of puppet master, **GIT**, **R10K** **wrapper**, **Open stack** (Horizon), **Vagrant** and **Jenkins**.
* Continuous Delivery setups with **Puppet** by creating manifest and maintain templates for different environments. Migration of shell scripts into **Puppet Manifests**.
* Wrote **Puppet** code to provision infrastructure including **LAMP** stacks, **Oracle middleware, Artifactory and Docker.**
* Move development application from **Docker containers** and deploy into production **Cloud Foundry** environment.
* Experience in Configuration Management, Cloud Infrastructure, and Automation like **Amazon Web Services (AWS), Ant, Maven, Jenkins, Chef, SVN, GITHUB, Clear Case, Tomcat, and Linux.**
* Utilize Cloud formation and **Puppet** by creating DevOps processes for consistent and reliable deployment methodology.
* Setup the **Python** scripts to create the snapshots on **AWS S3** buckets and delete the old snapshots.
* Used AWS Beanstalk for deploying and scaling web applications and services developed with **Java, PHP, Node.js, Python, Ruby,** and **Docker** on familiar servers such as **Apache, and IIS**
* Orchestrated and migrated **CI/CD** processes using Cloud Formation and **Terra form** Templates and Containerized the infrastructure using **Docker**, which was setup in **Vagrant, AWS** and **VPCs**.
* Implemented **CI/CD** for **J2EE, SOA** & Micro services Architecture Environment (**NodeJS, .Net Core, Zookeeper, Kafka, Redis**) using **Jenkins**.
* Involved in **JIRA** as defect tracking system and configure various workflows, customizations and plugins for **JIRA** bug/issue tracker, integrated **Jenkins** with **JIRA**, **GitHub**.
* Involved in the functional usage and deployment of applications in **WebLogic, WebSphere** and **Apache Tomcat Server.**
* Extensively experienced in **Bash, Perl, Python, Ruby** scripting on Linux.
* Experience in administering and maintaining **Linux servers in production environments**. Supported in installation of packages/patches on**Linux** platforms. Implemented Backup & Disaster recovery management on **Linux platforms.**
* Experience of the full **Software Development Life Cycle (SDLC)**. Also experienced the Methodologies & Validations to ensure Quality Assurance Control.
* Troubleshooting any **build issue with ELK** and work towards the solution.
* Experienced in configuration and maintenance of common Linux services such as **Tomcat, Apache, MySQL, NFS, FTP, Postfix, LDAP, DHCP, DNS BIND, HTTP**, **HTTPS, SSH**, **iptables** and **firewall** etc.
* Strong understanding in writing the automation of processes using the shell script with **bash** and **Python**
* Building servers with **jumpstart** using **Kickstart**, CD on timely basis, along with corporate wide requirements
* Experienced in **Troubleshooting**. **Splunk** search,**quotas**, monitor Inputs, **WMI** Issues, Splunk crash logs and Alert scripts.
* Experienced with principles and best practices of Software Configuration Management **(SCM)** in **Agile, scrum, and Waterfall methodologies**.

***Technical Skills:***

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| **Cloud Services** | **Amazon Web Services(AWS), Azure, OpenStack, Pivotal Cloud Foundry (PCF), Google Cloud Platform (GCP)** |
| **Virtualization** | **VMware, Windows Hyper-V, Datacenter Virtualization, Power VM, Virtual Box.** |
| **Operating Systems** | **Red Hat Linux 4/5/6/7, CentOS, LINUX, UNIX, Windows servers [ 2008 R2, 2012,], Windows 2000/2003/XP/vista/7/8/10, Ubuntu 12/13/14** |
| **Automation/configuration Tools** | **Chef, Puppet, Docker, Vagrant, Ansible, Jenkins, Hudson, Bamboo, Terraform, Kubernetes.** |
| **Web Servers** | **Apache Tomcat, JBOSS 4.x/5.x, WebSphere ­­Apache 1.3.x, Apache 2.0.x, and ngnix, IIS** |
| **Database Technologies** | **DBASS,SQLServer,MySQL, RDS, NoSQL,MongoDB, Cassandra DB, DynamoDB** |
| **Scripting languages** | **Ruby, Python, Perl, Bash/shell Scripting, Power Shell Scripting YAML, JSON.** |
| **Networking/Protocol** | **TCP/IP, HTTP/HTTPS, NFS, Cisco Routers, Juniper Routers** |
| **Version Control Tools** | **GIT, Bit bucket, SVN (Subversion), CVS** |
| **Monitoring Tools** | **Nagios, Splunk, Elastic Search, Logs and Kibana(ELK),­ Dynatrace** |
| **Build Tools** | **ANT, Maven and Gradle** |
| **Application Servers** | **Web Logic Application Server 10.x, Apache Tomcat 5.x/7.x, Red Hat JBOSS 4.22.GA, WebSphere 6.x/7.x/8.x** |

**Client: Capital One, Seattle, WA Mar 2017 to Present**

**Sr. DevOps / AWS Engineer**

**Responsibilities:**

* Experienced **Cloud** and **DevOps** engineer in Automating, Configuring and deploying instances on **AWS, Cloud environments and Data centers.**
* Expertise in configuring the monitoring and alerting tools according to the requirement like AWS **Cloud Watch, AWS CloudTrail, Dynatrace, Nagios, Splunk Enterprise, SNMP** monitoring for the **VPN** connections.
* Written **Cloud Formation Templates** (CFT) in **JSON** and **YAML** format to build the **AWS** services with the paradigm of Infrastructure as a Code.
* Configure **ELK** stack in conjunction with **AWS** and using LogStash to output data to **AWS S3**
* Involved in AWS **EC2**/**VPC**/**S3**/**SQS**/**SNS** based automation through **Terraform**, **Ansible**, **Python**, **Bash Scripts**. Adopted new features as they were released by Amazon, including **ELB** & **EBS**.
* DevOps role converting existing AWS infrastructure to Server-less architecture **(AWS Lambda, Kinesis)** deployed via **terraform.**
* Experience in Virtualization technologies like **VMWare**, **Vagrant** and worked with containerizing applications like **Docker, Kubernetes**.
* Create automation and deployment templates for relational and **NoSQL** databases including **MSSQL**, **MySQL, Cassandra** and **MongoDB** in **AWS.**
* Configuring, automation and maintaining build and deployment **CI**/**CD** tools **git**/ **git-Lab**, **Jenkins/Hudson, ANT, Maven**, **Build** **Forge**, **Docker**-**registry**/**daemon**, **Nexus** and **JIRA** for Multi-Environment (Local/POC/NON-PROD/PROD) with high degrees of standardization for both infrastructure and application stack automation in **AWS** cloud platform.
* Experience with container based deployments using **Docker**, working with **Docker images, Docker Hub** and **Docker-registries** and **Kubernetes**.
* Experience with setting up **Chef** Infra, **Boot strapping** nodes, creating and uploading recipes, node convergence in **Chef** **SCM**.
* Created private cloud using **Kubernetes** that supports **DEV, TEST**, and **PROD** environments.
* Implemented a production ready, load balanced, highly available, fault tolerant, auto scaling **Kubernetes** **AWS** infrastructure and **microservice** container orchestration.
* Debugging **Chef Recipes** and their execution trying to pull logs into **Splunk** and monitor deployments.
* Automated the cloud deployment using **Chef, Python** and **AWS Cloud Formation** Templates. Used **Chef** for unattended **bootstrapping** in **AWS**.
* Installed and Implemented **Ansible** configuration management system. Used **Ansible** to manage Web applications, Environments configuration Files, Users, **Mount points and Packages.**
* Maintained high availability clustered and standalone server environments and refined automation components with scripting and **configuration management (Ansible**) and experienced in writing **Ansible scripts.**
* Experienced in configuring Cloud platform such as Virtual Networks Multi-site, Cross-site, VMs, Azure AD, Load Balancers, **Azure SQL**, Cloud Services, etc.
* Implemented and maintained **Ansible** Configuration management spanning several environments in **Vrealize** and the **AWS** cloud.
* Configured **Subclipse** (Subversion plugin for Eclipse) and trained developers to utilize its various features Extensively used **Ant**, **Maven**, **Perl** and **Bash** Scripts for automating build and release tasks.
* Integration with **Splunk** for API traffic monitoring and health checks.
* Played a key role in converting 600+ existing **Jenkins** jobs into the new pipeline process.
* Prepared document on process of migrating **Jenkins** jobs from development environment to production server.
* Created **Chef Cookbooks** and wrote recipes in **Ruby** Script to install and configured Infrastructure across environments and automated the process using **Python Script**.
* Involved in Setting up **Chef Workstation**, **boot strapping** various enterprise nodes, setting up keys.
* Created **Puppet Manifests** to provision **Apache** Web servers, **Tomcat** servers, **Nginx**, **Apache** **Spark** and other applications.

**Environment**: Red hat Linux 7.x, AWS, AZURE, Chef, puppet,Docker, Ansible, Jenkins, Kickstart, Jumpstart, Terraform, Kubernetes, ANT, Maven**,** Ruby, Shell, Python, WebLogic Server 11g, Load Balancers, WLST, Apache Tomcat 7.x, Virtualization, Configured plug-ins for Apache HTTP server 2.4, Nginx, LDAP, JDK1.7, XML, SVN, GitHub,Nagios, Splunk**.**

**Client: Kaiser Permanente, Pleasanton, California July 2015 to Feb 2017**

**Role: DevOps /Cloud Engineer**

**Responsibilities:**

* Experience in Automating, Configuring and deploying instances on **AWS** Cloud environments.
* Designed **AWS** Cloud Formation templates to create custom sized **VPC**, subnets, **NAT** to ensure successful deployment of Web applications and database templates.
* Virtualized the servers on **AWS** using the **Docker**, create the **Docker** files and version control to achieve Continuous Delivery goal on high scalable environment, used **Docker** coupled with load-balancing tool **Nginx**.
* Experience with setting up **Chef** Infra, **Bootstrapping** nodes, creating and uploading recipes, node convergence in **Chef SCM**.
* Written **Chef Cookbook**, recipes to automate installation of Middleware Infrastructure like **Apache** **Tomcat, JDK** and configuration tasks for new environments etc.
* Written cookbooks for Web Logic, JDK 1.7, and Jenkins, tomcat, JBoss and deployment automation.
* Using **Chef,** deployed and configured **Elastic Search, LogStash and Kibana (ELK**) for log analytics, full text search, application monitoring in integration with **AWS Lambda** and **Cloud Watch**.
* Managed Amazon instances by taking **AMIs** and performing administration and monitoring of the Amazon instances like **EC2** using Amazon **Cloud Watch** and **Nagios, Splunk.**
* Implemented **Azure** Sql Server for storing the data related to the recruitment and extensively worked on queries and stored procedures.
* Troubleshooting Issues related to **Cluster** deployments.
* Managing **Cluster** nodes for Physical issues and escalating issues to respective vendors.
* Working knowledge on **Azure** cloud **IAAS** and **PAAS** Services, Azure SQL, Azure storage and Azure Services.
* Setting up private networks and sub-networks using Virtual Private Cloud (**VPC**) and creating security groups to associate with the networks.
* Design roles and groups using **Azure** Identity and Access Management (IAM)
* Used **MCollective, Facter, Hiera** frameworks to amend the automation pipeline built around **Puppet.**
* Developed automation scripting in **Python** (core) using **Puppet** to deploy and manage Java applications across Linux servers.
* Created and updated **Puppet manifests** and modules, files, and packages stored in the **GIT** repository.
* Writing various **puppet** manifests files with **Hiera** and customized functions and defined resources
* Scheduled the **Linux** **Cron** **jobs** and **Jenkins** jobs for **build** automation. Developed **Perl** and **shell** scripts for automation of the build and release process.
* **Deployed** and **troubleshoot** of various **Jenkins** issues. Installed and uninstalled, upgraded and downgraded various **plugins** in **Jenkins**.
* Assisted developers with establishing and applying appropriate branching, labeling conventions using **GIT** source control.
* Maintained build related scripts developed in shell for **Maven** builds. Created and modified build configuration files including **POM**.xml.
* Good experience in converting build.xml into pom.xml in order to build the applications using **MAVEN**.
* Maintain build related scripts developed in **ANT, Ruby, Shell** and **Python**.
* Setup a **Jumpstart**/**Flash** and **Kickstart** servers for provisioning of servers with different profiles.
* Installation of Red Hat EL 4.x, 5.x using **Kickstart** and **PXE** on HP DL380 G3
* Performed backup and administration activities for **SVN**/**GIT** branching, merging, tagging.

**Environment**: AWS, Azure, Chef, Puppet, Jenkins, Maven, ANT, Ruby, Shell, Python, WebLogic Server 11g, Load Balancers, WLST, Apache Tomcat 7.x, Docker, Virtualization, Configured plug-ins for Apache HTTP server 2.4, Nginx, LDAP, JDK1.7, XML, SVN, GitHub, Cloudwatch, splunk, Nagios.

**Client: Guardian Life, Pennsylvania (PA) Jan 2013 to June 2015**

**Role: Build Automation & CI Engineer.**

**Responsibilities:**

* Involved in DevOps migration/automation processes for build and deploy systems.
* Implemented continuous integration using **Jenkins.**
* Installed and configured **Jenkins** for Automating Deployments and providing an automation solution.
* Integrated **GIT** into **Jenkins** to automate the code checkout process.
* Maintained and administered **SVN,** **GIT** source code tool.
* Wrote JUnit test cases for unit, integration, and functional tests, run automatically by **Hudson/Jenkins** in the builds triggered by each push to **GIT**.
* Automate the code review process and published the results on**Jenkins** as well the graph by comparing everyday nightly builds
* Managed **GIT** repositories for branching, merging, and tagging.
* Configured **GIT** with **Jenkins** and schedule jobs using **POLL SCM** option and integrated to automate the code checkout process.
* Developed build and deployment scripts using **MAVEN** and **Gradle** as build tools in **Jenkins** to move from one environment to other environments.
* Experience with **Agile** to develop and work with the client to calibrate releases for test deployment.
* Created Branches, Labels and performed Merges in **Stash** and **GIT**.
* Developed processes, tools, automation for **Jenkins** based software for build system and delivering SW Builds
* Automated apache-web server configuration, DB server configuration, SSSD configuration **LAMP** by writing ruby cookbooks in **chef.**
* Managed **Chef Server** in pushing the infrastructure change to client nodes, monitoring the logs and security.
* Worked on using **Chef Attributes, Chef Templates, Chef Recipes**, and Chef Files for managing the configurations across various nodes.
* Well used and experience in deploying the code through web application servers like **Apache Tomcat** and **NGINX**.
* Provide CM and Build support for applications, built and deployed **to lower and higher environments.**
* Deployed **Chef** **Dashboard** for configuration management to infrastructure
* Involved in Building and configuring Red Hat Linux Servers using **Kickstart** server as required for the project.
* Implemented **Nagios** monitoring solution for mission critical server. Monitored the server and application using **Nagios**, and **Splunk.**
* Implemented and configured **Nagios** for continuous monitoring of applications in the production environment and enabled notifications via emails and text messages.
* Built and deployed J2EE application in **JBoss** in an **agile** continuous integration environment using **Python** scripts
* Involved in the development of **Bash shell scripts** to automate repetitive tasks.

**Environment:** RHEL, Solaris, Python, JBoss, Chef, Nagios, Splunk, Kickstart, Hudson, Jenkins, Ruby, GIT, Veritas, SVN, Ant, Bash/shell scripts, JIRA.

**Client: Hilton Groups - Tyson’s Corner, VA, Aug 2010 to Dec 2012**

**Role: Build & Release Engineer**

**Responsibilities:**

* Experience in Installing, configuring and maintaining the file sharing servers like **Samba, NFS, FTP** and also **Web Sphere & Web Logic Application Servers**, **Nagios**.
* Primary responsibilities include Build and Deployment of the java applications into different environments like Dev, INT and QA.
* Experienced in configuration and maintenance of common Linux services such as **Tomcat, Apache, My SQL, NFS, FTP, Postfix, LDAP, DHCP, DNS BIND, HTTP, HTTPS, SSH, IP tables** and **firewall** etc.
* Ability to handle load balancer implementations like bonding multiple interfaces into single bond in case of over load on **LAN** devices.
* Experience in Software Configuration Management (Daily Build, Release and Testing methodology) using tools like Microsoft Visual Source Safe (VSS), Subversion, and GIT.
* Strong understanding in writing the automation of processes using the **shell script** with **bash** and **Python**
* Building servers with jumpstart using **Kick start**, CD on timely basis, along with corporate wide requirements
* Creating and managing virtual memory (swap spaces) and file systems, while also supporting data management through on-site & off-site storage and retrieval services
* Extensive knowledge on Server administration, Kernel upgrade and deployment of patches and applying all firewall and security policies with emphasis on maintaining best practices.
* Experience in Installation, Configuration, Upgrade, Patches, and performance tuning on UNIX and system software & hardware.
* Administering local and remote servers on daily basis, **troubleshooting** and correcting errors.
* Experienced with inter networking using **TCP/IP** and resolving network connectivity using tools like dig, nslookup, ping.
* Monitoring of web servers and other services using **Nagios** monitoring tool.
* Involving and partitioning formatting disks and in file system management as Software **RAID, LVM** and VxVM.
* Installing and configuring various servers as Apache web server, **HTTP server, Samba**.
* Experience in **RHEL** Provisioning, Upgrades, Patching, Configuration and Performance Tuning in Linux environment using satellite server.
* Production support of **Apache, Apache HTTPD, JBoss, Tomcat** and Oracle Web logic 10.3 application servers including installation, configuration, and management and troubleshooting. Strong experience in VM environments like **XEN**, **KVM, Oracle Virtual Box** and **VM Ware 5.0.**
* Deployment of build artifacts like wars and ears into a Web Logic app server by integrating the WLST scripts to Shell Scripts.
* Database administration of MySQL, Oracle or equivalent Data Base programs.
* Installed and configured various services like **DNS, LDAP, DHCP, RPM**, **Send mail, Apache Web Server, Web Logic, NIS, SSH, Tomcat, Telnet, HTTP, HACMP, GPFS, SSL, Net App, RPM** Package Management and others.
* Performed OS installations, OS Upgrades, and Server Patching by configuring PXE and DHCP server using **Kick start** Configuration and by using Red Hat Satellite server.
* Debugged network connectivity issues and involved in trouble shooting activities with commands ping, trace **route, tcpdump, nslookup, netstat, IOstat, top.**
* Experienced in **writing Shell Scripts in Bash, C-shell** and Cron tab in**Linux** to automate the tasks.
* Scripting done in administrative and management tasks using **shell, Bash, Python** for automated administrative jobs and experience on **Bourne, Ruby, Perl** and **C-shell.**

**Environment**: Solaris 9/10/11, Java/J2EE,.NET,ANT, MAVEN, GIT ,Red Hat Satellite Server, Apache Tomcat, KickStart, Bonding, Jenkins, WebSphere, SQL, Agile, Web Logic, Subversion, Samba, NFS, FTP, LVM, Tomcat, Apache, bash, python.

**Client: Mastek, Hyderabad, India. Jun 2008 to July 2010**

**Role: Linux Administrator**

**Responsibilities:**

* As a **Linux/Unix** system maintained the various servers and Production Support of various applications in Red Hat Enterprise Linux, and Windows environment.
* Written Maven/Ant Scripts for Automating end-to-end build process and written Shell scripts for deployments and configuration of Web logic server for all J2EE applications.
* Developed and Modified Web Forms using C# under .Net framework 4.0/4.5 depending upon the Clients Requirement.
* Performed build support, troubleshoot broken builds, enforce zero build break and deliver releases to Production and QA in Linux/Solaris environment for company’s brokerage platform. The architecture consists of services layer (Tux/CWS) and Application Framework. The environment uses Jenkins continuous/incremental builds, subversion and associated tools.
* Assisted in development of new software solutions in C# domain within .Net development framework.
* Defined Portlets, workflows, packages to perform automation of ERP deployments through IT Governance.
* Responsible for creating and installing builds and deployments on UAT and Prod Environments.
* Used Perl/Ant/Shell to automate the build and deployment process for IBM web sphere and BEA web logic.
* Deployed J2EE applications across multiple instances of Web Sphere Application Server.
* Installed and configured Apache Tomcat, ANT for automated build processing and created Tasks in ANT to integrate to Web Logic.
* Maintained all the Linux environments for deployments and Implemented Configuration Management, Change Management policies and procedures.
* Used Perforce, Version Manager, SVN version control systems to manage different builds for the system.
* Experience in writing shell and power Shell scripts to automate manual tasks in Linux and windows environment.
* Worked closely with developers, users, business Analysts and Operations group to resolve build failures.

**Environment**: Linux (RHEL 5.x/6.x), Solaris 9/10/11, Red Hat Satellite Server, Kick Start, Bonding, WebSphere, SQL, Agile, Web Logic, Subversion, Samba, Jenkins, Java/J2EE,.NET, ANT, MAVEN, GIT, SVN, UNIX, JIRA, Apache Tomcat.

**EDUCATION**: Bachelor’s in Electronics and Communications Engineering (ECE) from JNTU Kakinada India -2008