**Venkat A.**

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**Professional Summary:**

Over 8 years of experience in IT industry and expertise as Linux Administrator, build engineer and Release Management, Automating Software Configuration Management (SCM), Deploying Applications through Continuous Integration (CI) and Continuous Deployment (CD) and Managing Cloud Services.

* Expert in various **Azure** services like **Compute** (**Web Roles, Worker Roles), Caching, Azure SQL**, **NoSQL**, **Storage**, and **Network** **services**, **Azure Active Directory (AD), API Management,** **Scheduling**, **Azure** **AutoScaling**, and PowerShell Automation.
* Experienced in configuring Cloud platform such as Virtual Networks Multi-site**, Cross-site, VMs, Azure AD, Load Balancers, Azure SQL, Cloud Services**, etc.
* Experienced in Amazon Web Services(**AWS**) cloud platform and services like **Lambda, DynamoDB, EBS, ELB, AMI, Elastic Beanstalk, CloudFront, CloudWatch, OpsWork SNS, Glacier, Auto-Scaling, IAM, Route53, EC2, S3, RDS, VPC, VPN, Security-Groups,** , and through AWS management console.
* Experience in Designing and distribution of Data across all the nodes and Clusters on different availability zones in AWS Redshift and Scaling Amazon **RDS, MySQL, MongoDB, DynamoDB, Cassandra DB, PostgreSQL,** Instances Vertically and Horizontally for High Availability.
* Building a Web application to track moving vehicle from received images by drone in real time using **AWS** **EC2** **Ubuntu** instance and **S3 Bucket** to store and access images remotely using **Python** **Flask** Framework with **boto3** **API**.
* Experience with **AWS** instances spanning across Development, Test and Pre-production and Cloud Automation through Open Source DevOps tools like **Chef**, **Jenkins** & **Docker**.
* Responsible for **OpenStack** project core infrastructure including code review, continuous integration systems, and developer tools and OpenStack **Multi**-**Node** **Installation**, **Configuration** and **Administration**.
* Experienced in Pivotal Cloud Foundry (**PCF**) on Azure **VM’s** to manage the containers created by **PCF**. Used **Docker** for deployment containers and push the code to **Azure Cloud**.
* Extensive experience in writing **Ansible**playbooks and Modules to automate our build/deployment process and do an overall process improvement to any manual processes and experience in working with **GIT** to store the code and integrated it to Ansible Tower to deploy the playbook.
* Experience using**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.
* Experienced in working on **puppet** and **chef**, Databags implementation, Coding standards, Cookbook documents, Testing docs, chef Infra, bootstrapping nodes, creating and uploading **Chef** Recipes, **Chef** Node convergence in **Chef** SCM.
* Experience in Developing **Chef** Cookbooks, recipes, roles and data bags to automate the services related to deployment. Designed and implemented fully automated server build management, monitoring and deployment by using Ansible playbooks and Modules.
* Expertise in deployment of a **Dockerized** **RabbitMQ** in **OpenShift** so that we might use the auto-scaling capabilities of **OpenShift** with a **Rabbit** **MQ** cluster.
* Expertise in using Docker and setting up **ELK** with **Docker** and **Docker**-**Compose**. Actively involved in deployments on **Docker** using **Kubernetes**.
* Experience in **Jenkins** pipelines to drive all **microservices** builds out to the **Docker** registry and then deployed to **Kubernetes**, Created Pods and managed **using Kubernetes.**
* Expertise in **Terraform** for building, changing, versioning infrastructure and collaborate the automation of **AWS** Infrastructure via **Terraform** and **Jenkins**.
* Experience in writing **Jenkins** Pipeline Groovy Scripts for Continuous Integration and build workflows and Used **Jenkins** uploading Artifacts into **Nexus** Repository and Automated various day-to-day administration task by developing **Bash, Ruby, JSON, Perl, PowerShell** and **Python** Scripts.
* Experience in Administration/Maintenance of Source Control Management Systems, such as SubVersion (**SVN**), **Perforce**, **TFS**, **GIT** and Knowledge of Clear Case.
* Experience in installation and management of network related services like **TCP/IP, FTP, SSH, DNS, TELENT, HTTP, HTTPS, LOAD BALANCING, VPN, FIREWALL, SUBNETS, SMTP, CDN.**
* Experience working with Adobe **AEM** for web content management to manage social media and web content for a project.
* Experience in Installing, Configuring, Managing the Monitoring Tools such as **Splunk**, **Nagios**, **ELK** and **New** **Relic** for Resource Monitoring/Network/Monitoring.
* Hands on experience in creating analytical matrices reports, dash boards for release services based on **JIRA** tickets
* Expert in trouble shooting **Linux** Servers, resolving boot issues and maintenance of server issues using rescue mode and single user mode and involving in building new Linux Physical and Virtual servers using **kickstart** and **PXE** boot.
* Experience in internet information service and hands on experience with **WebSphere, JBoss and WebLogic** deployments.
* Responsible for configuring and connection to **SSH** through **SSH** clients like Putty Remotely coping files using **SFTP**, **FTP**, **SCP**, **WinScp**, and **FileZilla**.

**TECHNICAL SKILLS**

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| --- | --- |
| Cloud platforms | AWS, Microsoft Azure, Openstack, PCF. |
| Containerization Tools | Docker, Kubernetes, OpenShift, Mesos. |
| Virtualization Platforms | Oracle VM Virtual Box, Vagrant, Hyper-V and VMware |
| Application/Web Servers | Amazon AWS, Apache Tomcat, JBoss, WebSphere, VMware |
| Scripting Languages | Perl, Python, Ruby, Bash/Shell Scripting, PowerShell, YAML, PHP, JSON. |
| Build Tools | ANT, Maven, Gradle. |
| Configuration Management tool | Ansible, chef, puppet. |
| continuous Integration tools | Bamboo, Hudson, Jenkins |
| Operating Systems | UNIX, Linux, Windows, Solaris, Ubuntu |
| Logging & Monitoring Tools | Nagios, Splunk, Cloudwatch, ELK, Dynatrace |
| Databases | MS Access, MS SQL Server, Oracle 8/10.0, Mango DB, DynamoDB |
| Networking | TCP/IP, DHCP, DNS, SNMP, SMTP, Ethernet, NFS, LDAP. |
| Issue Tracking Tools | JIRA, Remedy, Clear Quest, I-Track |

**CERTIFICATIONS:**

* Certified Basic Chef Fluency Badge
* Certified AWS Developer Associate- Validation Number 7ZB068H21MQQQ7C4

**PROFESSIONAL EXPERIENCE**

**GEICO, Bethesda- Maryland Mar 2017 to present**

**Sr. Cloud Engineer**

**Responsibilities:**

* Migrating the existing v1 (Classic) **Azure infrastructure** into v2 (**ARM**), **scripting and templating** the whole end to end process as much as possible so that it is customizable for each area being migrated.
* Configured Azure **VPN-Point to Site**, **Virtual networks, Azure Custom security, Endpoint security** and firewall, Designed and configured **Azure Virtual Networks (VNets), subnets**, Azure network settings, **DHCP** address blocks**, DNS** settings, security policies and routing.
* Provided high availability for **IaaS VMs** and **PaaS role instances** for access from other services in the **VNets** with **Azure Internal Load Balancer**.
* Used **Azure** **OMS** & Power BI for visualizing the activities. Worked on **Azure** App Insights, Alerts and Log Analytics for Monitoring as part of **OMS**.
* Ensured successful architecture and deployment of enterprise grade **PaaS** solutions using Pivotal Cloud Foundry (**PCF**) as well as proper operation during initial application migration and set new development.
* Expertise in configuring Pivotal Cloud Foundry (**PCF**) components OAuth2 server and , **Cloud Controller, nsync, BBS, Cell Rep, Blobstore, Diego Cell.**
* Converted existing **Terraform** modules that had version conflicts to utilize cloud formation during **Terraform** deployments to enable more control or missing capabilities.
* Deployed web applications into different application servers using **Jenkins** and implemented Automated Application Deployment using **Ansible**.
* Written **Chef** Cookbooks, recipes to automate installation of Middleware Infrastructure like **Apache** **tomcat**, **JDK**, and configuration tasks for new environments etc.
* Worked on **Chef** where in wrote code on workstations using **Knife** to interact with server and setting up **Chef** Infra, bootstrapping nodes, creating and uploading recipes, node convergence in **Chef** **SCM**.
* Virtualized the servers using the **Docker** for the test environments and **Dev**-environments needs and configuration automation using **Docker** containers.
* Worked on infrastructure with **Docker** containerization. Collaborated with development support teams to setup a continuous delivery environment with the use of **Docker**.
* Configured and setup **Kubernetes** Cluster environment with master and Nodes. Managed local deployments in Kubernetes using **mini** **kube**, creating local cluster and deploying application containers.
* Configured and maintained **Jenkins** to implement the CI process and integrated the tool with **Maven** to schedule the builds. Took the sole responsibility to maintain the CI **Jenkins** server.
* Responsible to setup **Jenkins** server and build jobs to provide continuous automated builds based on polling and post-hook scripts in source control systems like **GIT**.
* Artifacts generated by **Jenkins** & configured jobs with the Maven for various deployments of Managed JAVA/J2EE enterprise applications in **agile** environment, automated solutions using Python &managed artifacts in NEXUS repository.
* Maintained build related scripts developed in shell for **Maven** builds. Created and modified build configuration files including POM.xml and convertedbuild.xml into pom.xml to build the applications using **MAVEN**.
* 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.
* Configuring and managing an **ELK** stack, set up the **Elasticsearch** **ELK** Stack to collect, search and analyze log files from across the servers and Evaluated system logs using **ELK** software stack.
* Monitoring **SPLUNK** authentication and permission for supporting large scale **SPLUNK** deployments. Used **JIRA** for bug tracking, issue tracking and project management.
* Communicated status of **WCF** **Active Directory** integration project to project stakeholders.
* Using **Python**, **Perl** and **Shell** scripts for automation and monitoring, the administrative tasks and management using CronJobs.
* **PowerShell** scripting for Automation - Creating **VM's, Virtual Networking, VPN, Key Vault, Load balancer** and **Disk Encryption.**
* Automated Test cases and Steps by using concepts Overloaded Function, Variable, Array (single and multi-dimensional) and conditional logic to make script more logical and Debug **Java Script**.
* Worked in creating, cloning **Linux** Virtual Machines, templates using **VMware** and migrating servers between **ESX** hosts using VMotion and installed Firmware Upgrades, kernel patches, systems configuration, performance tuning on **Unix/Linux** systems.

**Environment**: VMware, Azure, Pivotal Cloud Foundry (PCF), Elasticsearch, Logstash & Kibana (ELK), Chef, Puppet, Ansible, Maven, Jenkins, Terraform, Python, Ruby, Shell, TFS, JIRA, Splunk, Oracle, WebLogic Server 11g, Apache Tomcat, Docker, Kubernetes, VMware, Apache HTTP server, Nginx, JSON, Nexus, Java, .Net, LDAP, JDK1.7, GitHub.

**British Petroleum, Chicago –Illinois Jan 2016 to Feb 2017**

**Cloud Engineer**

**Responsibilities:**

* Designed and implemented scalable, secure cloud architecture based on Amazon Web Services. Leveraged AWS cloud services such as EC2; auto-scaling; and VPC (Virtual Private Cloud) to build **secure, highly scalable and flexible systems** that handled expected and unexpected load bursts, and can quickly evolve during development iterations.
* Design **AWS CloudFormation** templates to create custom sized **VPC, subnets, NAT** to ensure successful deployment of Web applications and database templates and used **Terraform** in AWS Virtual Private Cloud to automatically setup and modify settings by interfacing with control layer.
* Worked on functions in **Lambda** that aggregates the data from incoming events, and then stored result data in Amazon **DynamoDB**. Wrote **Terraform** templates for AWS Infrastructure as a code to build staging, production environments & set up build & automations for **Jenkins**.
* Encrypted **EBS** volumes via **KMS** (key management service) to monitor create alarms & notifications for EC2 hosts using **CloudWatch**. Involved in configuring S3 versioning & life cycle policies to backup & archive files in **Glacier** and using **Amazon S3** for database backup regularly and save **snapshots** of data.
* Configured relational & non-relational databases like **Cassandra, MongoDB**. Implemented service layer on top of **Cassandra** using Restful API.
* Responsible for **OpenStack** project core infrastructure including code review, continuous integration systems, and developer tools and OpenStack Multi-Node Installation, Configuration and Administration.
* Integrated **OpenStack** Grizzly with **OpenSwitch** to create software defined Networking tenant and service provider’s network and routers.
* Written several **Chef** Cookbooks & recipes to automate the installation of Web Logic domain & JDK installations & have customized recipes from **Chef** Supermarket to align with current requirements.
* Written multiple **cookbooks** in **Chef** to automate the environment provisioning, Middleware Infrastructure Installations. Implemented **environments, roles, data-bags in Chef** for better environment management.
* Worked on **Ansible** to configure the servers, deploy software, and orchestrate continuous deployments or zero downtime rolling updates.
* Creating **Ansible** roles using **YAML** such as tasks, variables, files, handlers, templates and writing playbook for that role. Managed a **PaaS** for deployments using Docker, **Ansible** and Mesos, which reduced considerably deployment risks.
* Planned the architecture for migrating applications from bare metal and **AWS** to **OpenShift**. I have done few Upgrades and scaled **OpenShift** environment.
* Created **Docker** **containers** leveraging existing **Linux** **Containers** and **AMI's** in addition to creating Docker containers from scratch
* Building/Maintaining Docker container clusters managed by **Kubernetes** Linux, Bash, GIT, Docker, on GCP. Utilized **Kubernetes** and **Docker** for the runtime environment of the CI/CD system to build, test deploys.
* Integrated Automated Build with Deployment Pipeline. Installed **Chef** Server and clients to pick up the Build from **Jenkins** repository and deploy in target environments. (Integration, QA, and Production).
* Used Chef to deployed and configured **Elastic search, Log stash and Kibana** (ELK) for log analytics, full text search, application monitoring in integration with **AWS Lambda** and **Cloud Watch**.
* Used **Jenkins** API to query the Jenkins server state and change configuration and automate tasks on nodes and jobs and used **Maven** as build tool on java projects for the development of build artifacts on the source code.
* Managed central repositories & implemented with **GIT** to host **GIT** central repositories for source code across products, facilitate code reviews & login audits for Security Compliance.
* Used **JIRA** tracking tools for tracking defects and changes for Change management.
* Created and maintain build automation shell, manage building fixes, merges, release cuts as needed, written scripts for environment changes in **Bash, Perl and Python** for Web-sphere mapping modules to the enterprise application.
* Installed and configured **AEM 6.0** instance and developed Templates, Components, Dialogs, Widgets which are the building blocks for a page.
* Implemented the monitoring tools like **Nagios 3.0** to monitor services like CPU, Hard Drive, Memory, Users, HTTP and SSH etc.
* Worked with Network Protocols like TCP, SMTP, DNS, HTTP, and SNMP. Troubleshooting **Linux network**, security related issues, capturing packets using tools such as **IPtables, firewall, TCP wrappers, NMAP.**

**Environment**: Amazon Web Services(AWS), OpenStack, Docker, Kubernetes, Chef, Ansible, Jenkins, Maven, GIT, AEM, Splunk, Nagios, Elasticsearch, Logstash and Kibana (ELK), Java, .Net, JIRA, WebLogic, Apache Tomcat, MongoDB, Linux/RHEL, Vagrant, Active Directory, LDAP, VMware Servers, Windows, PowerShell, Ruby, YAML, Shell, Bash, Python.

**Monsanto, St. Louis, MO Apr 2014 to Nov 2015**

**Sr. DevOps Engineer**

**Responsibilities**:

* Worked in designing and deploying **AWS** Solutions using **EC2, S3, EBS, Elastic Load balancer (ELB), auto scaling** groups.
* Leveraged **AWS** services such as code pipeline to create **CI/CD** pipeline and cloud watch and cloud trail to create Monitoring dashboards and network traffic logs.
* Design roles and groups using **AWS** identity and access management (**IAM**), and manage network using Security Groups, Network Access Control Lists with services provided by **IAM.**
* Written **Chef** Cookbooks for various DB configurations to modularize and optimize end product configuration, converting production support scripts to **Chef** Recipes and AWS server provisioning using **Chef** Recipes.
* Written multiple cookbooks in **Chef** to automate the environment provisioning, Middleware Infrastructure Installations. Implemented environments, roles, data bags in **Chef** for better environment management.
* Developed many roles and playbooks in**Ansible** and automated to build and deploy infrastructure using **Ansible**.
* Extensively worked on **Ansible** to configure the servers, deploy software, and orchestrate continuous deployments or zero downtime rolling updates
* Worked on the creation of custom **Docker** container images, tagging and pushing the images and **Dockers** consoles for managing the application of life cycle.
* Extensively worked on **Jenkins** by installing, configuring and maintaining for Continuous integration(**CI**) and for End to End automation for all build and deployments
* Configured and maintained **Jenkins** to implement the **CI** process and integrated the tool with **Ant** to schedule the builds.
* Worked in all areas of Jenkins setting up **CI** for new branches, build automation, plugin management and securing **Jenkins** and setting up master/slave configurations.
* Worked on source control tools like **GIT**. Primarily used **Ruby** to write **GIT** applications as well as created and maintained **GIT** repositories also analyzing and resolving conflicts related to merging of source code to **GIT**.
* Created **Splunk** app for Enterprise Security to identify and address emerging security threats through the use of continuous monitoring, alerting and analytics. Work closely with Application Teams to create new Splunk dashboards for Operation teams.
* Responsible for authoring and editing **Python scripts** for automation purpose which enabled the QA testers to perform testing with a more reliable and faster performance.
* Administrated user and groups accounts setting permissions, **web servers, file servers, firewalls and directory services.**
* Installed a **PHP** based **Linux kickstart** solution that allows for the building of profiles based on IP address- this system allows for rapid installation of new **Linux** systems.
* Worked on handling tasks in **Linux/Unix** which include upgrading **RPMS** using **YUM**, kernel, **HBA** driver, configure **SAN** disks, Multipathing and **LVM** file system.

**Environment**:  Amazon Web Services(AWS), Cloud Formation, Chef, Jenkins, Nginx, Nagios, Docker, Maven/ANT, PowerShell Scripting, Puppet Hiera, Puppet DB, Linux, VMWare Servers, Udeploy, Shell scripting, Bash, GIT/ SVN, Splunk, ELK, Apache Mesos, Linux/RHEL, Windows, Python, LVM, RPM’s.

**Bottomline Ink, Perrysburg-OH Nov2012-Feb2013**

**Build and Release Engineer**

**Responsibilities:**

* Worked along with developers & application teams to design DevOps process for orchestrating Test, Build, Release and Deployment.
* Provide the support of building the server, patching, user administration tasks, deployment, software installation, performance tuning and troubleshooting and **KVM**.
* Written **Puppet** modules for installation and configuration of various deployments on third party applications and knowledge on **Vagrant** and developed **Puppet** models for installing and managing **java** versions.
* Involved in Architect, Build and maintain Highly Available secure environment utilizing **puppet** with **Bamboo** for continuous integration.
* Automated Weekly releases with **ANT** scripting for Compiling **Java** Code, Debugging and Placing Builds into **Maven** Repository.
* Installed and administered Artifactory repository to deploy the artifacts generated by **Maven** and to store the dependent jars which are used during the build.
* Designing, Planning and Configuration of Continuous Integration/ Inspection Tools such **SonarQube**, **Artifactory**, **Bamboo**, **SVN** for full **DevOps** Stack setup
* Developed processes, tools, automation for **Bamboo** based software for build system & delivering **SW** Builds and Managed user authentication and authorization for the users in both**Subversion** & **Perforce**.
* Created the naming strategy for branches and labels and involved continuous integration system with **SVN** version control repository and continually build as the check-inn’s come from the developer.
* Building and Deploying **Java/J2EE** to a web application server in an **Agile** continuous integration environment and automated the whole process, troubleshooting the build and deploy failures.
* Configuring **Bamboo** set up, defining, scheduling jobs, invoking external scripts and external executable triggered from **Bamboo** at defined intervals.
* Worked on high-volume crash collecting and reporting system, built with **Python**. Performed dispatcher role to distribute tasks assigned to the onshore team.
* Configure **Nagios** for all the mission critical applications and using **Nagios** effectively for Application troubleshooting and monitoring post go lives.
* High exposure to **REMEDY** and **JIRA** tracking tools for tracking defects and changes for Change management.
* Administration of various flavors of **Linux** like **RHEL**, **SLES**, Centos and **Unix** servers (**AIX**) which included monitoring and troubleshooting of those servers in the day to day basis.
* Installing **RedHat** **Linux** using kickstart and applying security polices for hardening the server based on the company policies.

**Environment:** Agile, Linux, RHEL, SELS, AIX, SVN, Perforce, KVM, Puppet, Bash Scripting, Python, ANT, Bamboo, JBoss, SonarQube, Artifactory Application Servers, Windows, WebSphere Application Server, Python, Nagios, Splunk

**Smart IMS, Hyderabad-India Sep2011-Oct2012**

**Sr. Linux Administrator**

**Responsibilities:**

* Installed configured, updated, upgraded and maintained Linux servers and perform the network configuration on RedHat, Centos OS and Applications.
* Created **Linux** Virtual Machines using **VMware** Virtual Center, creating **VM** Templates, and troubleshooting all Virtualization related issues. Migrated different projects from **Perforce** to **SVN**.
* Involved in setup and install configured Server and Boot Server using PXE booting for Kickstart process & performed Kickstart to install OS on Linux boxes.
* Installed, configured and managed Global File System (GFS) in Linux Servers, creating and managing Cluster suite using GFS and Administration and maintaining of VERITAS Cluster Server.
* Configured RedHat Satellite Server for patching and configuring Linux servers to update patches from the satellite server.
* Implementation & Managing of RAID levels like RAID 0, RAID 1, RAID 5 using Solaris Volume Manager
* Management of disks on Red Hat Linux Servers using LVM, creating volumes, file system and resizing volume, Volume Groups, Logical volumes, and Disk Mirroring.
* Basic Network configuration **LAN/WAN** and Monitoring & Troubleshooting. Configuring wireless Router, Switches, and router on Linux.
* Involved in running **LAMP (Linux, Apache, MySQL, and PHP)** systems in agile quick scale cloud environment and Created Bash, shell, python scripts to monitor system resources and system maintenance.
* Adding servers to domain and managing the groups and user in Active Directory, installing and configuring send mail on RedHat Linux servers.

**Environment**: Linux, RedHat, CentOS, TCP/IP, SVN, .Net, Jenkins, Java, Apache Tomcat, SQL, Oracle, Agile, WebLogic, Subversion, Bash, Kickstart, VERITAS, LVM, SSH, Perforce.

**CampusEAI Consortium, Gurgaon - India May2010-Aug2011**

**Linux System Administrator:**

**Responsibilities:**

* Worked as a system administrator with concentration on supporting and expanding production environments, taking responsibility, and engaging in; IT operations, infrastructure design, implementation, monitoring, troubleshooting, consultation, vendor and project management.
* Deployed and administered **Microsoft** **SQL** Server in standalone and clustered environments.
* Managed, and supported Windows 7, Server 2008, **Linux**, **VMware** and Active Directory domain network in multi-locations.
* Installation, configuration and administration of Apache **Tomcat, WebLogic, WebSphere.**
* Responsible for installing and configuring **VMware** setup and Worked on deployment of applications on **VMware** and **VCenter**.
* File system tuning, growing, and shrinking with **VERITAS** File system and **LVM**
* Installed and configured **DHCP, DNS, TCP/IP, UDP, FTP, NFS** server and clients, Assigning IP addresses to client hosts, and performed Troubleshooting.
* Utilized **KICKSTART, SSH, FTP, AUTOFS**, User Management, Disk Management and Swap Partition/Files management.
* Involved in complete Administration tasks on **UNIX**, **RedHat** **Linux** and Solaris and documentation for the projects executed.
* Worked with supporting 24x7 production computing environments and providing on-call and weekend support.

**Environment**: LVM, Kickstart, DNS, DHCP, TCP/IP, RIP, FTP, TFTP, NFS Terminal Services, SSH, SNMP, SMTP, NFS, NIS, Microsoft Windows, Linux, VMware workstation, virtual box, Red Hat.