**Venkata Nikhit Mulkala**

**Cloud/Devops Engineer**

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**PROFESIONAL SUMMARY:**

* 7+ years of experience in IT industry comprising of Linux System Administration, DevOps and Release Engineering in automating, building, releasing of code from one environment to other environment and deploying them to servers.
* Experience in Azure web applications development and services like App Service, Azure storage, Azure SQL Database, Virtual machines, Fabric Controller, Azure AD, Azure search and Notification Hub.
* Experience in Automating, Configuring and Deploying Instances on Azure environments and in Data centers and migrating on premise to Windows Azureusing Azure Site Recovery and Azure backups.
* Experience with AzureCommand line interfaceand **PowerShell** scripts to automate the project creation, setting permissions for users, groups in Azure Devops.
* I am an **AWS Certified** **Developer** with experience in solution architecting applications and running them in the cloud and experience in network and security design for applications in the cloud. Also done extensive automation using cloud APIs and cloud SDK’s to create infrastructure programmatically in the cloud.
* Involved in deploying Java and .Net applications to cloud by utilizing various AWS cloud services like AWS Code Deploy, **EC2,** Route53, EBS, **S3**, **ECS**, SNS, **Lambda**, SQS, Cloud Front, **Cloud Formation** and Auto Scaling, AWS Redshift.
* Expertise in AWS security services like IAM, Cloud Front, Cloud Watch and have experience in creating and managing Security Groups.
* Proficient in tracing complex build problems, release issues and Implemented Continuous Integration and deployment using various CI Tools like **Jenkins, Bamboo, Chef, Puppet, Ansible.**
* Strong experience using Ansible creating ANT & MAVEN scripts viz; build.XML & pom.xml files for deployment.
* Experience in working on **OpenStack** Services such as **Nova Compute, Network, Swift Storage, Dashboard, image, Identity, Monitoring,** and **Orchestration Service**
* Worked with **Docker** for testing of code and different infrastructure setup. Wrote build and test scripts from scratch for new projects and new modules within existing projects.
* Focused on containerization and immutable infrastructure. Experience on clustering and container management using Docker Swarm and **Kubernetes**.
* Configuring and maintaining **Red hat OpenShift PaaS** environment. Good Understanding of **OpenShift** platform in managing **Docker** containers, **Kubernetes** Clusters.
* Used **Terraform** for building, changing, and versioning infrastructure safely and efficiently and also to map more complex dependencies and identify network issue.
* Created and Maintained **Chef** cookbooks and Recipes to simplify and expedite deployment of applications and mitigate user error, while creation of cloud formation templates, bootstrapping with Chef.
* Have good experience in Troubleshooting Operational issues of containerized workloads in Kubernetes Clusters by installing & Configuring Application Logging and Monitoring tools like Grafana, Prometheus.
* Installed, Configured, ManagedMonitoring Toolssuch as **ELK Stack,** **Splunk, Nagios, AppDynamics** and good working knowledge on other tools like Dynatrace, New Relic.
* Worked with different Bug tracking tools like **JIRA, Rally, Remedy** and **IBM Clear Quest**.
* Experienced administrator skills on **Linux/UNIX** distributions (RedHat/CentOS, Ubuntu, Solaris and AIX) and Windows flavors. Installed **Linux/Unix** distributions and constructed various services as per the requirement using **Puppet**.
* Worked with other internal IT teams to complete project activities (Architecture and Database teams).
* Experience in creating and managing user accounts, Security policies, Permissions, Disk space, Disk quotas and Process monitoring in CentOS and Red Hat Linux.
* Extensive working experience on scripting languages like **Bash, Ruby, Python** and **PowerShell** for automating tasks.
* Experience in **Build/Release/Deployment/Operations (DevOps)** engineer with a strong background in Linux/Unix Administration and best practices of SDLC methodologies like **Agile** and **DevOps/Cloud processes**.

**TECHNICAL SKILLS:**

* **Cloud platforms:** Amazon Web Services (AWS), Microsoft Azure, Google (GCP), Oracle, CenturyLink Cloud, PCF, Openstack.
* **Orchestration & Containerization:** Kubernetes, OpenShift, Anthos, Rancher, Nomad, Docker Swarm.
* **CI/CD Tools:** Hudson, Jenkins, Bamboo, Ansible tower, Atom, Chef, Rundeck, Automic, Visual Studio Code.
* Infrastructure as code: Terraform, AWS Lambda, Google Compute, Cloud Functions, App Engine, Cloud Run, Firebase.
* **Artifact Repository Manager:** JFrog, Nexus.
* **Build & Operating Systems:** Maven, Gradle, Sonar, Nexus, and Ant, OpenStack Fuel, VMware, Mirantis, Docker containers, Red Hat Virtualization, Oracle Virtualization, Linux (Red Hat, Ubuntu & SUSE), KVM, Raspberry Pi.
* **Database:** Oracle, MySQL, Postgres, MongoDB, Mariadb, Dynamo DB, BigQuery, SQLite, SQL Server, No-SQL Databases, Sybase.
* **Web/Application Servers:** nginx, Apache, JBoss, PHP, Web logic, Web Sphere.
* **Security Tools:** IAM, HashiCorp Vault, Nessus, Venafi, QualysGuard, Fortinet, SSL.
* **Tracking & Repositories Tools:** Github, GitLab, BitBucket, JIRA, ServiceNow, iTrack, Slack, HP-OpenView, Remedy, Clear Quest, Rundeck.
* **Programming Languages:** Yaml, JSON, JavaScript, HTML, Python, XML and Shell Scripting.
* **Monitoring:** Google Cloud Compute Engine, AWS Cloudwatch, Forman, Datadog, Kibana, Kiali, Prometheus, Grafana, Kafka, Stackdriver, Splunk, Hobbit, CloudWatch, Cacti, Nagios, Sitescope, and Cockpit.

**CERTIFICATIONS**

**AWS Certified Developer-Associate**

Validation Number: C26N5DMKP1R4QMS0

Validation Links:

1. <http://aws.amazon.com/verification>

**PROFESSIONAL EXPERIENCE:**

**Client: General Motors Financial, Arlington, TX April 2020 to Present**

**Role: Cloud Engineer**

* Deployed Web app, Web jobs, **Azure DevOps/VSTS** - Azure Pipeline, Build, Release, Storage strategy -Blobs, Create and manage **VM, ARM** templates.
* Performed cloud migration, managing both classic & ARM portal, effectively use **Power Shell** to manage **Azure** services, troubleshooting access related issues.
* Hands on experience with Windows Azure, Cloud Services, Storage/Storage Accounts, AzureTraffic Manager.
* Deployed Azure Cloud services (PaaS role instances) into secure **VNets**, **subnets** and designed **Network Security Groups** (NSGs) to control Inbound & Outbound access to Network Interfaces (NICs), VMs & subnets.
* Gained experience in dealing with Windows Azure IaaS - **Virtual Networks**, **Virtual Machines**, **Cloud Services, Resource Groups, Express Route, Traffic Manager, VPN, Load Balancing, Application Gateways, AutoScaling**.
* Authored **ARM Templates** and **Terraform Modules** to describe infrastructure to be deployed including compute resources with specific properties such as multiple data disks and static IP address, autoscaling, networking, storage accounts, and resource groups.
* Created **ARM templates** for provisioning virtual networks, subnets, VM Scale sets for the firewall, Load balancers, public IPs and NAT rules.
* Used **Terraform** to map more complex dependencies and identify network issues and worked with Terraform key features such as infrastructure as code, execution plans, resource graphs and change automation.
* Installed and managed **Kubernetes** applications using **Helm Charts** and created a private cloud that supports DEV, TEST, and PROD environments.
* Worked with container-based deployments using **Docker** working with **Docker images, Docker Hub and Docker-registries and Kubernetes**.
* Wrote various YAML **Ansible playbooks** & modules and deployed in the production and pre-production environments.
* Used **Ansible** and **Ansible Tower** as configuration management tool, to automate repetitive tasks, deploy applications and manage changes and automate software update and Verify functionality.
* Used Ansible shell scripts to automate the code deployment and automation of continuous integration infrastructure (GIT and **Nexus** were also used in this process).
* Used **Splunk APM** for log aggregation and analysis on different application servers.
* Installed **Splunk** in production servers for logging purpose. Built Splunk dashboards for application monitoring. Configured alerts for operational purposes.
* For the deployment artifacts **Nexus Artifactory** implementation **Maven** release plugin Jenkins job.
* Worked on **OpenShift** for **container orchestration** with **Kubernetes** container storage, automation to enhance **container** platform multi-tenancy also worked with **Kubernetes** architecture and design troubleshooting issues and **multi-regional** deployment models and patterns for **large scale** applications.
* In order to provide secured network connectivity to the containers we used Calico. Responsible for build and deployment automation using VM Ware ESX, **Docker**, Kubernetes containers and **Chef**.
* The UI is enriched with **JQuery,** **JavaScript** library that facilitates dynamic and asynchronous screen manipulation and AJAX request.
* Deployed **JAVA/J2EE** applications through **Jboss** Application servers. Comfortable and flexible with installing, updating and configuring various flavors of **UNIX** and **Windows**. Involved in front-end programming using **C++, C** on both **UNIX Windows platforms**.
* Set-up a continuous build process in Visual Studio Team Services to automatically build on new check-in of code then deploy that new build to the Azure Web application and then adjusted the application to have it work properly on **AWS**.

**Environment:** Azure, Terraform, Kubernetes, Docker, Openshift, Ansible, Python, Jenkins, Javascript, Jboss, Maven, Splunk, Nexus.

**Client: Vonage, Atlanta, GA Jan 2019 to Feb 2020**

**Role: DevOps Cloud Engineer**

**Responsibilities:**

* Provisioning of **Amazon Web Services (AWS)** and worked on **AWS** services like EC2, AMI, S3, Glacier, Elastic Load Balancer (ELB), RDS, SNS, and EBS.
* Configuring and Networking of **Virtual Private Cloud (VPC), Cloud Front, Route53.** Knowledge on **AWS** API Gateway for custom domain and Record sets in **Amazon Route53** for applications hosted in **AWS** Environment.
* Created Terraform modules for two tier Architecture which includes **AWS** resources VPC, **Subnets, Security groups, Ec2, Load Balancers, Auto scaling group, Cloud watch Alarms, ECS clusters, S3 buckets for logs.**
* Extensive experience with configuration management tools Chef with **AWS** **Ops** **Works**, **Elastic Beanstalk** and then launch, scale **Docker** containers in production using **Apache Mesos** and **Marathon** and/or configuration management automation.
* Migrated **VMWARE** **VMs** to **AWS** and worked with internal teams to plan and manage the migration of applications to **AWS** cloud.
* Installed and managed **Kubernetes** applications using **Helm Charts** and created a private cloud that supports DEV, TEST, and PROD environments.
* Worked with container-based deployments using Docker working with Docker images, Docker Hub and Docker-registries and Kubernetes.
* Used **Jenkins** and pipelines to drive all microservices builds out to the **Docker registry** and then deployed to **Kubernetes**, Created **Pods** and managed using **Kubernetes.**
* Managed containers using **Docker** by writing Docker files and set up the automated build on Docker hub and installed and configured **Kubernetes**.
* Automated the Applications and **Mysql, NoSql** container deployment in **Docker** using **Python** and monitoring of these containers using **Nagios.**
* Performed Implementation of horizontal auto-scaling use cases using OpenStack components and launched stacks from templates and manage stacks using the Heat Orchestration Service.
* Wrote various YAML **Ansible** playbooks & modules and deployed in the production and pre-production environments.
* Used **Terraform** to map more complex dependencies and identify network issues and worked with Terraform key features such as infrastructure as code, execution plans, resource graphs and change automation.
* Configured **Jenkins** with **Prometheus** to monitor Jenkins builds and experience in Monitoring/Managing alerts in Prometheus and visualized them using **Grafana** dashboard.
* Injecting Groovy scripts in **Jenkins** for dashboard and customized email triggers and also setting up the build and deployment automation for **Terraform** scripts using Jenkins.
* Installed SonarQube on **Jenkins** server and configure with the build process for the code analysis process for better code quality and code metrics, and rapid feedback for development teams and managers.
* Involved in sprints and planned releases with the team using **JIRA** and Confluence.
* Wrote **Ansible** Playbooks with **Python** **SSH** as a wrapper to manage configurations of **AWS** nodes and Test Playbooks on AWS instances using Python.
* For the deployment artifacts **Nexus** Artifactory implementation Maven release plugin Jenkins job.
* Worked with **Chef** Enterprise Hosted as well as On-Premise, Installed Workstation, Bootstrapped Nodes, Wrote Recipes and Cookbooks and uploaded them to Chef-server, also managed On-site OS/Services/Packages using Chef as well as AWS for EC2/S3/Route53 & ELB with Chef Cookbooks.

**Environment:** AWS, GIT, Java/J2EE, Jenkins, VSTS, SVN, C#, Bitbucket, Vagrant, ANT, MAVEN, JIRA, Apache Tomcat, Web logic, Ansible, Nexus, CentOS.

**Client: Huron Consulting Group, Atlanta, GA Oct 2017 –Jan 2019**

**Role: DevOps Engineer**

**Responsibilities:**

* Performed the automation deployments using **AWS** by creating the **IAMs** and used the code pipeline plug-in to integrate **Jenkins** with **AWS** and created the **EC2** instances to provide the virtual servers.
* **Data migration** from on prem data centers to **AWS cloud**, creating the infrastructure for data migration in AWS Cloud, automate provisioning and repetitive tasks using Terraform and Python, Docker container, Service Orchestration.
* Involved in Designing and deploying **AWS** solutions using **EC2, S3, RDS, EBS Volumes, Elastic Load Balancer, Auto Scaling groups, Lambda** Functions, Apigee, **CloudFormation Templates, IAM Roles,** Policies.
* We migrated from our company datacenter to **AWS** using their services for our projects for server-based centos, red hat for development, QA, UAT,Prod environments and provide access to all teams who worked on that applications.
* Manage the development, deployment and release lifecycles by laying down processes and writing the necessary tools to automate the pipe.  Worked with **Terraform** key features such as Infrastructure as code, Execution plans, Resource Graphs, Change Automation.
* Automated successful design and deployment of enterprise grade platform as a service solution using **Pivotal Cloud Foundry (PCF)** as well as proper operation during initial application migration and net new development.
* Manage **AWS EC2** instances utilizing Auto Scaling, Elastic Load Balancing and Glacier for our **QA** and **UAT** environments as well as infrastructure servers for **GIT** and **Ansible**. .
* Used **Prometheus** as a monitoring tool for critical production issues, incident response and metrics and visualized the reports by integrating Prometheus with tableau.
* Configured **Kubernetes** Replication controllers to allow multiple pods such as Jenkins master server in multiple minions.
* Configured and maintained **groovy** scripts to implement the **CI/CD** process in Jenkins and integrated the tool with **Ant** and **Maven** to schedule the builds.
* Assisted developers with establishing and applying appropriate branching, labeling/naming conventions using GIT source control.
* Written **Ansible playbooks** which are the entry point for Ansible provisioning, where the automation is defined through tasks using **YAML** format. Run Ansible Scripts to provision Dev servers.
* Installing, setting up & Troubleshooting **Ansible,** created and automated platform environment setup.
* Written **Ansible** Playbooks with **Python, SSH** as the Wrapper to Manage Configurations of **AWS** nodes and Tested Playbooks on **AWS** instances using **Python,** running **Ansible** Scripts to Provide Dev Servers.
* Wrote Ansible Playbooks with Python SSH as the Wrapper to Manage Configurations of AWS nodes and Tested Playbooks on AWS instances using Python.
* Migrated **VMware** VMs to **AWS** and Managed Services with **Ansible.** Working with **GitHub** to store the code and integrated into **Ansible** Tower to deploy the playbooks. Created user level of access for related **GitHub** project directories to the code changes.
* Used **Artifactory** repository Tool for maintaining the Java based release code packages and Responsible for build and deployment automation using **AWS, Docker, Kubernetes Containers,** deployed those applications using **Docker** Containers in the cloud with **PaaS**.
* Configured and setup Kubernetes Cluster environment with a master and 3 minions, Docker containers.
* Written **Shell Scripts** to apply the Integration label to all the files which needs manual labelling of files. Configured the user accounts for Continuous Integration - **Jenkins, Nexus** and **Sonar**, handled **Jira** Tickets for SCM Support activities.
* Installed, Configured and Managed Monitoring Tools such as **AppDynamics**, **Cloud Watch** for Resource Monitoring.

**Environment:** AWS, Git, GitHub, Jenkins, OpenStack, Ansible, Nexus, Docker, Kubernetes, Terraform, Nagios, Jira, AppDynamics, Cassandra, ANT, Shell Scripts, ELK, Groovy, JavaScript, JSON, Python.

**Client: USAA, San Antonio, TX May 2016 –Oct 2017**

**Role: DevOps/Automation Engineer**

**Responsibilities:**

* Design and setup of **Crucible,** **Bitbucket Server, Jenkins, SonarQube, Microfocus SCA, JFrog** on Linux servers.
* Maintained Source Control branches, Control engineering team’s access to those branches from time to time depending on the release schedules using **Bitbucket**.
* Configured **Bitbucket** repositories with branching, forks, tagging, and notifications. Experience and proficient in deploying and administering **Bitbucket,** Migrated applications from **SVN** to **Bitbucket.**
* Implemented a **CI/CD** framework using **Jenkins** in Linux environment and Integration of **Jenkins, Bitbucket, Junit, SonarQube**, **Maven, Cucumber, Confluence, Jira and Micro Focus SCA.**
* Developed **Java** and **Apigee** pipelines with industry standard tools and quality checks and ensured to meet code quality and security standards by implementing Quality gates using **SonarQube, HP fortify** and **Linting**. Managed the builds and its dependencies in the secured Artifactory using JFrog Artifactory and **Maven**.
* Designed high quality Pipeline process for **zero downtime** with proper health check in **admin mode**, **sanity and integration** checks are done after new version deployment and reverted script if build was not as excepted, all the steps are integrated using **ansible** playbook.
* Worked with **Docker** Management Platform, Leveraged Custom **Docker** Images as Containerized Apps within the **Docker** Engine, creating, managing and performing container-based deployments using **Docker** images containing Middleware and Applications together, deployed **Docker** Engines in Virtualized Platforms for containerization of multiple apps.
* Experience in ECS/Container platform setup and enabled autoscaling for Docker container. Experience in Docker Swarm for clustering and scheduling Docker containers. Experience in working on several Docker components like Docker engine, Hub, Machine, Compose and Docker registry.
* Automated the cloud deployments using Puppet and AWS Cloud Formation Templates.
* To achieve Continuous Delivery **(CD)** goal on high scalable environment, used **Docker** coupled with load-balancing tool **Nginx**. Implemented several **Tomcat** Instances by using the **Docker** engine for running several Containerized Application Servers.
* Maintained the Project Related Documents and Standard Practices in **Confluence** pages, worked in a fast-paced **Agile** type environment while coordinating with developers, Business Analyst, and Managers to make sure that code is deployed in the Production environment

**Environment:** Crucible, Bitbucket, Jenkins, Junit, SonarQube, Apigee, Newman, Apigee lint, Cucumber, WebLogic, Maven, Ansible, Java, Agile, Apache HTTPD, Apache Tomcat, Docker, Bash, Shell, Perl, Python, PHP, Ruby, HP Fortify, Rally, ELK, Nagios, Confluence.

**Client: App cloud Software solutions, Hyderabad, India Oct 2014 –April 2016**

**Role: Build and Release Engineer**

**Responsibilities:**

* Worked on Continuous Integration System i.e., Jenkins, used Jenkins for official nightly build, test and managing change list. Installed Multiple Plugins for smooth build and release build pipelines.
* Developed build and deployment scripts using **ANT** and Apache **MAVEN** as build tools in Jenkins to move from one environment to other environments.
* Worked on using Version control systems includes Subversion **(SVN), GIT**, and ClearCase, migrating from **SVN** to **GIT** with hands-on installing, configuring, administrating **Jenkins** on Linux machines alongside updating plugins like GIT, Maven, SVN and Puppet.
* Proficient with **Jenkins** and **Bamboo** for continuous integration and for End-to-End automation for application build and deployments.
* Managed, configured servers to automate tasks and deploy apps on Virtual Machines, Bare-Metal and Cloud Instances using a tool Foreman along with Puppet.
* Resolved update, merge and password authentication issues in Bamboo and JIRA.
* Used configuration Management tool like puppet to enable continuous Deployments. Experienced with working on **Puppet** Master and Puppet Agents. Defined Puppet Master and Puppet Agents to manage and configure nodes.
* Experience working with Puppet Enterprise and Puppet Open Source, installed, configured, upgraded and managed Puppet Master, Agents & Databases. Integration of Puppetwith Apache and Passenger.
* Having production experience supporting and deploying to web application servers such as WebLogic**,** JBOSS, Apache, **Tomcat**, and Apache HTTPD servers.
* Developed and implemented an automated Linux infrastructure using Puppet**,** installed and configured an automated tool Puppet that included the installation and configuration of the Puppet master, agent nodes and an admin control workstation.
* Troubleshooting Backup and Restore Problems, Creation of LVMs on SAN using Linux utilities.
* Experience in writing chef manifests to automate configuration of a broad range of services, involved in Setup and Configuration of **chef** Configuration Management.
* Set up Jenkins build jobs to provide one click deployments of the latest software build to WebSphere clusters for use by developers and support personnel, these were implemented using a combination of Jenkins configuration, **BASH** scripting.
* Build and maintain **SQL** scripts and execute different scripts for different environments.
* Responsible for writing the Release Notes, documenting all the useful info about the release, software versions, changes implemented in current release, Defects fixed, Labels applied.
* Configured and maintained Hudson to implement the **CI** process and integrated the tool with **Ant** and **Maven** to schedule the builds and deployed those applications on to Apache **Tomcat** application servers and configured it to host the wiki website.

**Environment:** GIT, SVN, Bamboo, Jenkins, Puppet, Java/J2EE, ANT, MAVEN, JIRA, TeamCity, ETL, LINUX, XML, Windows XP, Windows Server 2003, MY SQL, Perl j Scripts, Shell scripts.

**Client: Ananth Technologies, Hyderabad, India June 2013 – Oct 2014**

**Role: Software Engineer**

**Responsibilities:**

* Involved in J2EE project, which was developed using Hibernate 4, Spring MVC, AJAX, JSP, jQuery and JavaScript, Software designed using use-case and class diagrams
* Responsible for developing the data model using MySQL tools and examined the feasibility of testing the application by experimenting with automated testing technologies.
* Designed the development of Customer Perception module. Developed web services SOAP, WSDL and web services clients using JAXB and XML, implemented SOAP architecture.
* Implemented the project using JSP and Servlets based tag libraries.
* Developed client-side validations using JavaScript. Coded JDBC calls in the servlets to access the Oracle database tables. Involved in the Maintenance and Support of the System.
* Generate SQL Scripts to update the parsed message into Database, worked, developed, and maintained the MySQL database using MySQL tools.
* Worked on parsing the RSS Feeds (XML) files using SAX parsers, designed and coded the core class that will handle errors and will log the errors in a file.

**Environment:** JavaScript framework, jQuery library, Ajax, MySQL, SOAP, Linux, JSP, Angular.

**EDUCATION:** Masters in Information Technology Management, Campbellsville University, Kentucky.

Bachelors of Technology in JNTU University, Hyderabad.