## Expert Certification - Cloud Native Computing Foundation

##  RAKSHITH G

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10+ years experienced & result oriented Cloud/DevOps Engineer possessing in-depth experience of managing cloud-based technology & effectively handling configuration & Deployment of Infrastructure & services. Gained hands-on experience in implementing core DevOps concepts such as containerization, virtualization, version control, cloud computing, database management & administration, load balancing, etc. by using a wide variety of technologies while working with multiple DBMS, Operating Systems & programming languages. Drives excellence in every project to deliver outstanding results.

##   **KEY SKILLS**

• Cloud Technology Management • Containerization • Pipelining • Version Control • Load balancing • Configuration Management • Virtualization • Cloud Computing Server Maintenance • Infrastructure Monitoring • Security & User Administration Shell Scripting • CRUD • Networking & Configuration • Deployment & Provisioning • Database Management • Database Administration

 **PROFESSIONAL SUMMARY**

* Defined architecture, design, governance and implementation plans for hosting complex highly available, scalable application workloads on **MS Azure /AWS.**
* Designed solutions leveraging **IaaS**, **PaaS**, **App Services**, Azure Functions, Logic Apps, Web Jobs, hosting **Microservices** into Container Instances, **AKS** clusters, **Service Fabric** mesh.
* Experience in migrating on-premises to the Microsoft **Azure** using **Azure** **Recovery Service Vault** and **Azure** **backups**, **Azure** **Fabric**, **Docker** **containers** to the cloud in **Azure,** and created Domain Controller in one of the Virtual Machine and added users to Domain Controller.
* Experience in the areas of **DevOps**, **CI/CD** Pipeline, Build and release management, **Azure/AWS,** and **Linux**/**Windows** Administration.
* Experienced in custom solutions **capacity planning, physical** and **logical architecture**, Identity management, administration, deployment, IIS Configuration, application scale out, **application gateway** and **load balancer, high availability and disaster recovery** configurations
* Hands-on experience in an environment of Amazon Web Services (**AWS**) products gained good knowledge in Elastic Cloud Computing, Simple Storage Services, Glacier, Block Storage, **Elastic Beanstalk**, Amazon **Lambda**, Virtual Private Cloud, Load balancing, Relational Database Service, and **Cloud Watch**.
* Experience in designing and deploying **AWS** IaaS, PaaS, SaaS, Lambda Functions and **EKS** clusters using Cloud Formation and **Terraform**.
* Have experience in Automating the detection and remediation of identity-based risks, investigate risks using data in the portal, & Export risk detection data to third-party utilities for further analysis using **Azure** **active directory identity protection.**
* Experience in optimizing **solution performance, security, environment stabilization** & m**aintenance** of existing & legacy applications and strategizing the **Legacy System Modernization**
* Implemented **Azure DevOps** Pipelines for **CI/CD** setup, deployed applications automatically by enabling the triggers to deploy and Migrated TFS CI/CD pipeline into **Azure** **DevOps** pipeline and restored the artifacts into **azure** **artifacts**.
* Worked on **Azure** **Kubernetes** **Service** to deploy a managed **Kubernetes** cluster in **Azure** and created an **AKS** cluster in the **Azure** portal, with the **Azure** CLI, also used template-driven deployment options such as **Resource** **Manager** templates (**ARM**) and **Terraform**.
* Hands-on experience in deploying **Kubernetes** Cluster on cloud environment with master/minion architecture and wrote many **YAML files** to create many services like **pods, deployments**, auto scaling, load balancers, labels, health checks, Namespaces.
* Deployed **Flux** in **Kubernetes** Cluster for continuous delivery of **Helm Charts** by integrating **Flux** with the **Helm repository**.
* Proficiency in using **Docker Hub, Docker Engine, Docker images, Docker Weave, Docker Compose, Docker Swarm, and Docker Registry** and used containerization to make applications platform when moved into different environments.
* Worked on setup the **Kubernetes** **sandbox** on **Azure** **Kubernetes** **Services** (**AKS**) for testing the different features and manage containerized applications using its **nodes**, **ConfigMaps**, selectors, services, and deployed application containers as **Pods** using various pod controllers’ **deployments**, **DaemonSets**, and **Statefulsets**.
* Troubleshoot the build issues during the **Jenkins** build process and Developed build and Deployment scripts using **ANT** and **MAVEN** in **Jenkins** to automate the project’s lifecycle. Efficient experience in using **Nexus** and **Artifactory** repository managers for **Jenkins** and **Maven** builds.
* Experienced in setting up various **Jenkins** jobs to pull the code from the **GitHub** repository and perform continuous integration and continuous delivery by writing a **Jenkins** **file** using **Groovy** scripting language.
* Experience in Configuration management tools such as **Chef, Ansible, and Puppet**. Wrote **Chef recipes and cookbooks** in **Rub**y scripting.
* Experience in building private cloud infrastructure of **OpenStack**, deploying through **Ansible Playbooks,** and maintaining them in production.
* Experienced in **Ansible tool,** which is used to manage and configure nodes, Managed Ansible Playbooks with **Ansible roles** and used **Ansible Tower** to manage Multiple Nodes and Inventory for different Environments.
* Expertise in **Terraform** to reliably version and create Infrastructure on **Azure/AWS** cloud. Created resources, using **Azure/AWS** **Terraform** modules, and automated infrastructure management
* Experienced with **Terraform** key features such as Execution plans, Resource Graphs, Change Automation, and extensively used Auto Scaling for launching cloud instances while deploying **Microservices** and used **Terraform** to map more complex dependencies and identify network issue.
* Hands-on experience with Version Control tools such as **Git**, **Bitbucket,** and **SVN** in **Branching**, **Merging**, and **Tagging** and maintaining versions across Windows and Linux platform.
* Hands-on experience with databases like **MySQL**, **MongoDB**, **Postgres**, **Cassandra** for creating tables, views, **triggers,** etc.
* Experienced in Integrated **ELK** Stack to an existing appliance framework for real-time log aggregation, analysis, and querying (**Elasticsearch, Logstash, Kibana**) and using **ELK** Stack.
* Excellent knowledge on **agile** methodologies, **agile** operations process, and tools area and experience in using Software Development Life Cycle (SDLC) Waterfall methodologies.
* Broad experience in **Linux/Unix** System Administration, System Builds, Server Builds, Installations, Upgrades, Patches, Migration, and Troubleshooting.

##  TECHNICAL SKILLS

**Cloud Platforms**  : Azure, AWS, PCF, OpenStack.

**Operating Systems** : CentOS, RHEL (6.x, 7x), Ubuntu, Solaris, Windows.

**Containerization Tools** : Docker, Kubernetes, Mesos, OpenShift, AWS ECS, AKS, ECR.

**Versioning Control Tools** : Subversion (SVN), GIT, Stash, Bitbucket.

**CI/CD Tools** : Jenkins, Bamboo, Hudson.

**Logging & Monitoring Tools** : Azure Monitor, Nagios, Splunk, ELK, CloudWatch, Prometheus, New Relic.

**Configuration Tools** : Ansible, Chef, Puppet.

**Build Tools** : Ant, Maven.

**Languages/ Scripting** : C, C++, Python, Java/J2EE, JavaScript, C#, Ruby, YAML, Ruby, Asp.Net.

**IDE &amp; Developing Tools** : Eclipse, Notepad++, Sublime, JBoss, MAMP, Putty, VirtualBox, Microsoft Visual Studio, JIRA.

**Web Technologies** : HTML/HTML5, CSS/CSS3, JavaScript, jQuery, Ajax, JSON, XML, JSP.

**Application Server** : Web Sphere, Apache Tomcat, JBoss.

**Database**  : SQL, MySQL, Azure Cosmos DB, Amazon RDS, Oracle, DB Design

 NoSQL (DynamoDB, MongoDB, Cassandra)

#  **PROFESSIONAL EXPERIENCE**

##  **Sr Cloud Infrastructure Engineer**

##  **J.B Hunt - Lowell, AR.** **Jan 2019 - present**

* Managed design, installation, administration, and optimization of Hybrid cloud components to ensure business continuity (i.e. **Azure** **Active Directory**, **ADFS** **SSO** & **VPN** Gateways).
* Evaluate on-Premises data center workloads, estimate cloud migration, implementation, and maintenance efforts
* Working on **On-Premises** to **Azure migration**, Jira to **Azure DevOps** Migration, GitHub to Azure DevOps Migration along with experience in configuring and using PaaS offerings (like **Azure Database services, Azure Kubernetes, Azure Containers, DNS, Application gateway rerouting, Application Insights, Azure Container Monitors, etc.).**
* Migrated on prem to windows azure by building **azure disaster recovery environment, azure recovery vault and azure backups** from the scratch using power shell script.
* Managed to migrate **SQL Server** databases to **SQL** **Azure** Database using **SQL** **Azure** Migration **Wizard** and used **Ruby** API to upload agent logs into **Azure** **blob** storage.
* Migrated websites to **Microsoft** **Azure** cloud and deploying applications on multiple web servers and maintained **load balancing,** high availability, and synchronized on-premises Active Directory users to office 365 with **AD CONNECT**.
* Built an application environment to operate at high availability in different Azure regions by using **CDN**, Azure **Traffic Manager, App Services-Web Apps, Active Directory**, Storage Queues, Cognitive Services, Azure Search, Storage Blobs, Redis cache, and SQL Database.
* Configured **RBAC** and **Azure Monitor** for adding security in Azure Cloud and **Network Security Groups** for Subnet and **NIC** level for Azure Virtual Machine
* Deployed **ASP.NET** web Application in **Azure** using **Web App service**, connected it to **Azure** **SQL Database** and used **Azure DevOps** to provide **CI/CD** pipeline and created **Azure** **Active Directory** (AD) tenants and managed to restrict the Access to **Azure DevOps.**
* Creating and Managing Virtual Machines in Windows **Azure** and setting up communication with the help of Endpoints. Configured **Shared Access Signature (SAS)** tokens and Storage **Access Policies** in **Azure Cloud Infrastructure.**
* Experienced in writing **AZURE** **Resource Manager** (**ARM**) Template to deploy multiple resources and extensive experience in designing custom build steps using **PowerShell** scripts and **ARM** templates to automate the provisioning and deployment process.
* Modernize legacy monolithic mission critical applications using **Microservices** architecture leveraging **Azure Kubernetes Service** & **Service Fabric mesh.**
* Configured **AppDynamics** cluster agent to monitor **AKS** pod failures and restarts, node starvation, missing dependencies such as Services, Config maps and Secrets.
* Implemented **Terraform** Enterprise to provision infrastructure across **Azure** workloads and **Kubernetes** clusters.
* Extensively involved in **Infrastructure as Code**, execution plans, resource graph, and change automation using **Terraform**.
* Created **Terraform** templates for provisioning virtual networks, subnets, VM Scale sets, Load balancers, and **NAT** rules and used Terraform graph to visualize execution plan using the graph command.
* Worked with **Terraform** Templates to automate the **Azure** **IaaS** virtual machines using **Terraform** **modules** and deployed virtual machine scale sets in a production environment.
* Created builds and release pipelines in **Azure DevOps** and done deployments using **SPN** (secure endpoint connection) for implementing **CI/CD.**
* Deployed and Configured **Artifactory** and Integrated **Azure** Pipelines with **Artifactory** to save the build **artifacts**, **Docker** images and retrieve them during resource provisioning.
* Configured **Kubernetes** cloud to provision dynamic pods as worker nodes for various jobs in the **Kubernetes** cluster by creating service accounts and set up Docker in Docker (**DIND**) **Daemonsets** to provide virtual docker daemon and separate host daemon.
* Configured and Integrated **Docker** container orchestration framework using Kubernetes by creating **pods**, deployments, and used **Python Scripts** to schedule, deploy, and manage container replicas onto a node cluster using **Kubernetes**.
* Worked on production-grade **Kubernetes** cluster, configuring **pod security policies,** and allocating dedicating CPUs by configuring **isolcpu** at the kernel level and making sure pod has guaranteed **QoS-class** and configured several global network policies in **Calico** in **Kubernetes** cluster for **ingress/egress** rules at the **subnet** level.
* Managed **Kubernetes** charts using **Helm**, and built reproducible **Kubernetes** applications builds, managed **Kubernetes** manifest files, and **Helm** package releases.
* Used helm to set up **Prometheus** and **Grafana** on our existing **Kubernetes** **cluster** for collecting logs and visualizing on a graphical dashboard.
* Worked on **Ansible** to automate repetitive tasks, quickly deploys critical applications, and proactively manage changes and written **Ansible** **Playbooks** to perform middleware binary Installation and Configuration tasks involving **JDK**, **Tomcat** binaries installation.
* Installed and configured **Nagios** as a monitoring tool for disk usage, CPU utilization, list of open files, etc. Setup threshold alerts in **Nagios** **XI** and updated contact definitions to notify potential service or host interruptions.

##   **Azure DevOps Engineer**

 **DTCC – Tampa, FL. Sept 2016 – Dec 2018**

* Dealt with **Microsoft** **Azure** **IaaS** – Cloud Services, **Virtual Networks, Virtual Machines, Resource Groups, Express Route, Traffic Manager,** VPN, Load Balancing, Application Gateways, Virtual Machine Scale Sets**,** and **Auto-Scaling.**
* Configured **Azure Virtual Networks, subnets, DHCP** address blocks**,** Azure network settings**, DNS settings, security policies,** and **routing**.
* Designed **ARM** templates for provisioning **Azure** resources like **Application Gateway, Azure Policy, Network Security Groups, and Azure Application Insights**.
* Configured different types of blobs, **Block** blobs, **Page** blobs, and **Append** blobs in **Azure** for storing a large amount of unstructured object data such as text or binary data, that can be accessed from anywhere via **HTTP** or **HTTPS**.
* Configured **Azure** Serverless applications with built-in security and monitoring – **Azure** **Active Directory**, **Azure** **Key Vault**, **Cosmos DB** integration, Serverless **Kubernetes,** etc.
* Created **Azure** Automation Assets, **Graphical runbooks**, **PowerShell** **runbooks** that will automate specific tasks.
* Expertise in deploying **Azure** **AD** **Connect**, configuring **ADFS** **authentication** **flow**, **ADFS** installation using **Azure** **AD** **Connect**.
* Automated provisioning of Hybrid solutions connecting **Azure** to on-premises resources via **IAC**, **Azure** **Express Route,** and **Azure** **Hybrid connections**.
* Extensively worked on **Terraform** modules that had version conflicts to utilize during deployments to enable more control or missing capabilities. Managed different infrastructure resources, like physical machines, **VMs,** and **Docker** containers using **Terraform**.
* Expertise in building **Jenkins** jobs to create **Azure** Infrastructure by pulling **Terraform** code from **GitHub** repositories, ability to work closely with teams, to ensure high quality, timely delivery of builds, releases.
* Included Vulnerability Detection as a part of the **CI/CD** workflow using **Jenkins** Pipelines, **SonarQube**, **Quality** **Gates**. Installed **Jenkins**/Plugins for **GIT** Repository, Setup SCM Polling for Immediate Build with **Maven** and **Maven** Repository (Nexus Artifactory).
* Implemented CI/CD **webhooks** & workflows around **Jenkins** to automate the dev-test deploy workflow around **Ansible** codebase. Installed and Managed **Jenkins** and **Nexus** for CI and Sharing **Artifacts** respectively within the company.
* Experienced with deployment automation of all the microservices to pull the image from the private **Docker** **Registry** and deploy to **Docker** **Swarm** Cluster using Ansible.
* Deployed **Windows** and **Linux** based **Docker** containers with popular container orchestrators like **Kubernetes** and **DCOS** provisioned by the **Azure** Container Service and integration of container registries.
* Deployed **Kubernetes** Cluster on cloud/on-premises environments with control/compute architecture and wrote many **YAML** files to create many services like **pods, deployments, auto-scaling, load balancers, labels, health checks, Namespaces, Config Map**.
* Worked on **Ansible Playbooks, Modules, Roles**, and used them in Cloud (**Azure**) environments and experience with **Ansible Tower** to manage multiple nodes and manage inventory for different environments.
* Used **GIT** as a source code management tool for creating a local repo, cloning the repo, adding, committing, pushing the local repo changes, saving changes for later (Stash), recovering files, branching, and creating tags.

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##  **AWS Infrastructure Service Engineer**

##  **UHG - Brentwood, TN July 2014 – Aug 2016**

* Worked on core **AWS** services **(S3, EC2, ELB, Route53, VPC, auto-scaling, etc.)**, deployment services (**Ops-Works** and **Cloud Formation**), and security practices (**IAM, Cloud watch and Cloud trail**).
* Designed **AWS** **cloud formation** templates to create custom securitized **VPC, Subnets, NACLs, NAT** to ensure the successful deployment of web applications and database templates in private environments.
* Migrated the **MySQL** database from on-premises to **AWS** **Aurora** **RDS**, thereby enabling automatic extending the system’s storage. Used **AWS** Data migration services to combine databases, thereby enhancing data compatibility.
* Used **AWS** **Beanstalk** for deploying and scaling web applications and services developed with **Java**, **Node.js**, **Python,** and **Ruby** on familiar servers like **Apache**, **Nginx**, and **Tomcat**.
* Setup the CloudWatch monitoring dashboards with **SNS** notification configurations on various performance metrics retrieved from various **AWS** **Resources**.
* Worked at optimizing volumes and **EC2** instances and created multiple **VPC** instances. And Deploy and monitor scalable infrastructure on **Amazon web services (AWS).**
* Hands-on experience in migration of one Business from a physical data center environment to **AWS**. Worked at optimizing volumes and **EC2** instances and created multiple **VPC** instances. And Deploy and monitor scalable infrastructure on **Amazon web services (AWS).**
* Managed **IAM policies**, providing access to different AWS resources, design and refine the workflows that were used to grant access. Configured access for inbound and outbound traffic for **RDS DB** services, **DynamoDB** tables.
* Integrated **ELK Stack** to an existing appliance framework for real time log aggregation, analysis, and querying (**Elasticsearch, Logstash, Kibana**) and using ELK Stack, Elasticsearch for deep search and data analytics. **Logstash, Splunk** for centralized logging, log enrichment and parsing and Kibana for powerful and beautiful data visualizations
* Created **Python** scripts to fully automate **AWS** services, including **ELB**, **Cloud Front distribution**, **EC2**, **Security Groups**, and **S3**. This script creates stacks, single servers and joins web servers to stacks.
* Created customized **Amazon Machine Images** (AMI) based on already existing AWS **EC2**instances by using create image functionally snapshot which was used for disaster recovery as well.
* Automated the implementation of **VPCs, ELBs, security groups, SQS queues, S3 buckets** by using **Terraform** and used **Terraform** as a tool to manage different cloud infrastructure resources.
* Experience in working with **AWS EC2** Container Service plugin in **Jenkins,** which automates the **Jenkins** master-slave configuration by creating temporary slaves.
* Designed end-to-end automation of infrastructure and continuous delivery of the applications by integrating cloud formation scripts**, Jenkins**, AWS & Ansible playbooks.
* Integrated **Jenkins** with various DevOps tools such as **Nexus, SonarQube** and used the **CI/CD** system of **Jenkins** on **Kubernetes** container environment, utilizing **Kubernetes** and **Docker** for the runtime environment for the **CI/CD** system to build and test and deploy.
* Worked on Container management using **Docker** by writing **Docker** files and set up the automated build on **Docker HUB** and installed, configured, **Kubernetes**.
* Experience in developing **Cookbooks**, **Recipes**, Resources and Run lists, managing the **Chef Client** nodes, and upload the Cookbooks to chef-server from Workstation using **knife** command, **Berkshelf** dependency manager, and **Test kitchen** to validate **Chef** Cookbooks.
* Implemented the **Blue/Green** deployment strategy by creating new applications that are identical to the existing production environment by using automation frameworks such as **Terraform** templates.

##  **Python** **Developer**

##  **Hyundai Mobis – Chicago, IL. Feb 2013 – June 2014**

* Managed, developed, and designed a dashboard control panel for customers and administrators using **Django**, PostgreSQL, **Flask**, and **VMWare** API calls.
* Developed consumer-based features and applications using **Python and Django**in test-drivenDevelopment and pair-based programming.
* Implemented the concepts of multi-thread processing to achieve a high throughput of the application using **Python**.
* Installation, configuration, integration, tuning, backup, crash recovery, upgrades, patching, monitoring system performance, system and network security, and troubleshooting of **Linux/UNIX** servers.
* Plans and facilitates the organization of PostgreSQL information bases to guarantee exact, proper, and successful information use, including information base definition, structure, documentation, long-range necessities, and operational rules.
* Developed **Python**-based API (**RESTful** Web Service) to track sales and perform sales analysis using **Flask** and **PostgreSQL**. Developed and designed an API (**RESTful** Web Service) for the company’s website.
* Developed a custom dashboard using **Python** **Flask** and configured it with a backend database using **Flask** **SQLAlchemy**.
* Developed **Python**, **Perl**, and **shell/bash** scripts for **Tomcat** servers. Wrote automation scripts in **Python** for build and release process.

##  **Sr Systems Administrator**

##  **Wipro Ltd – Hyderabad, India. Aug 2011 – Dec 2012**

* Worked on Installation, Configuration, and Maintenance of **Apache Tomcat**, **Web Sphere,** and **JBoss** servers in **AIX** and **Linux** environment.
* Lead projects creating the supporting Infrastructure for future **Linux**-based servers, including software distribution, security, remote Access, fault-tolerance and disaster recovery, and backup.
* Setting up, configuring, and troubleshooting **TCP/IP, DHCP, DNS, CIFS, NTP,** and **Samba** servers on different multi-platforms (**Windows**, **Linux**)
* Installing, configuring, and administering **DNS, NFS, NIS, Mail servers, FTP servers, RPM servers** on Red Hat Linux, Ubuntu, CentOS, Fedora platforms.
* Provided systems administration support to **Linux** systems, including server and workstation upgrades, backup and disaster recovery, monitoring, user account setup
* Planned and performed the upgrades on **Linux** and **AIX** operating systems and hardware maintenance on **HP** and **POWER** servers, such as increasing memory, disk, and replacing failed hardware.

##  **Linux** **Administrator**

##  **DBS Bank – Hyderabad, India. June 2010 – July 2011**

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* Created and modified application related objects, created Profiles, users, roles, and maintained system security.
* Managed and administrated all **Linux/UNIX** servers, includes **Linux** operating systems, by applying relative patches and packages at regular maintenance periods using **Red Hat** **Satellite server**, **YUM**, **RPM** tools.
* Developed **UNIX** and **Perl** Scripts for manual deployment of the code to the different environments and Email the team when the build is completed.
* Creating the shell scripts to automate **cron** jobs and scheduling these jobs by creating **crontabs**.
* Installed and administered **VMware,** **vSphere**, **ESX,** and **Vcenter** servers.

 **Education**

 Master’s in **Computer Science Engineering**

 Northern Illinois University – Dekalb, IL

 Bachelor’s in **Electronics and Communication Engineering**

 Osmania University – Hyderabad, India