Karthik V 

**Developer - Associate**

Sr. DevOps/Cloud Engineer

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***PROFESSIONAL SUMMARY:***

* Over 7 years of extensive experience in Automating, configuring and deploying instances on cloud environments. Experience in the areas of **DevOps**, **CI/CD** **Pipeline**, Build and release management, **AWS/Azure** and **Linux/Windows** Administration Proficient in prioritizing and completing tasks in a timely manner, yet flexible when necessary.
* Good knowledge on creating the **CI/CD** **Azure** DevOps Pipeline and Deployment Automation for **.Net, Java** and **UI** based Web Applications.
* Created Micro services applications with integrations to **AWS** services by using **Amazon EKS**, while providing access to the full suite of Kubernetes functionality Setting up huge **Kubernetes** platform with four clusters and provided assistance to various app teams.
* Demonstrated competency with the following **AWS** services: **EC2, EBS, S3, RDS, VPC, Route53, ELB, IAM, Cloud Front, Cloud Formation** and Ability to make recommendations on how new AWS offerings fit in the company architecture.
* VM in **Azure** - Managed Azure services and subscriptions using Azure portals and PowerShell, managed Azure resources to Azure Resource Manager **Azure virtual Networking** - Implemented Virtual Networks using deployment template, Azure portals and **PowerShell**, configured inter-site connectivity, point to site VPN, site to site VPN, VNet to VNet VPN.
* **used bash** and **python**, included**boto3** to supplement automation provided by ansible and terraform for tasks such as encrypting EBS volumes backing AMIS and scheduling lambda functions for routine AWS tasks.
* Setup and build AWS infrastructure various resources, **VPC EC2, S3, IAM, EBS, ELB Security Group, Auto Scaling, and RDS in Terraform templates**
* Used **Azure Terraform** to deploy the infrastructure necessary to create development, test, and production environments for a software development project.
* Developed Infrastructure as Code **(IaC)**, Configuration as Code **(CaC)**, Pipeline as Code for **AWS,   
  Azure, and using Jenkins, Terraform, Ansible, ARM, and Cloud Formation.**
* Explicit knowledge on **Ansible Playbooks**, modules, roles, and used them in **Cloud** (AWS, Azure, Open Stack) environments and experience with Ansible Tower to manage multiple nodes and manage inventory for different environments.
* Hands on experience in Chef Enterprise Hosted as well as Installed Workstation, Bootstrapped Nodes, Wrote **Recipes, Cookbooks** and upload them to **chef-server** managed On-site OS/Applications/Services/Packages using Chef.
* Worked on **Ansible** - Configuration management tool to automate the configurations process.
* Creating software package and Integration using of custom scripts through **puppet.**
* Worked on **docker** project to port different application on RedHat images (UBI). Created docker files to build images and run application successfully.
* Managed **Docker orchestration and Docker containerization** using **Kubernetes.**
* Experience on **Kubernetes** on debugging, leading up to production when multiple application builds must be tested for stability.
* Extensively used **Jenkins** to streamline CI/CD process, Master-Slave configurations using **ec2** instances as temporary slaves.
* Implemented multiple bamboo plans and deploy plans by using **java**.
* Maintained **Git** workflows for version control and worked with **s3 buckets** for code storage and versioning.
* Created repositories on **bit bucket** according the structure required with branches, tags and trunks.
* Worked on authoring pom.xml files, performing releases with the **Maven** release plugin, and managing artifacts in maven internal repository.
* Experience on using **ANT** as build tools for building of deployable artifacts (jar, war & ear) from source code.
* Monitoring the project applications/services using **Splunk, New Relic and Nagios** monitoring tools.
* Hands on experience in building deployment/build scripts and automate solutions using scripting languages such as **Power Shell, Shell Scripting (Bash), Python, Perl and Ruby**.
* Deployed **.net** and **Java** applications to application servers in agile continuous integration environment and automated the whole process.
* Experience in handling administrative tasks, **database** monitoring tasks, diagnosing database problems and fixing the issues.
* Expert at installing and maintaining **Linux** based and Windows based Server, Server Administration and Migration.
* Implemented, Managed and troubleshooted Web, Application, Mail, Asterisk and Database servers hosted on **Linux (Centos/Ubuntu).**
* experience as **windows** **server admin**, wintel operations, EUC & application support, **Active Directory** and **SCCM**.

***TECHNICAL SKILLS:***

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| --- | --- |
| * **Cloud** | * AWS, OpenStack, Azure, GCP. |
| * **N Configuration Management Tools** | * Chef, Puppet, Ansible |
| * **CI/CD tools** | * Jenkins, Bamboo |
| * **Build Tools** | * Ant, Bamboo, Gradle |
| * **Container Tools** | * Docker, Kubernetes, Mesos |
| * **Version Control Tools** | * GIT, Bit Bucket |
| * **Monitoring Tools** | * Nagios, Splunk, New Relic & ELK |
| * **Databases** | * My SQL, NoSQL (MongoDB, DynamoDB), Cassandra |
| * **IAAC** | * Terraform, Cloud Formation, ARM Templates |
| * **Application Servers** | * Web Logic 9.x, 10.x, Apache Tomcat 5.x/7.x, JBOSS, WebSphere 7.x/8.x |
| * **Networking/Protocol** | * TCP/IP, NIS, NFS, DNS, DHCP, WAN, SMTP, LAN, FTP/TFTP |
| * **Operating Systems** | * Linux (RedHat, CENTOS), Unix, Ubuntu 13/14 Windows 2012/16. |
| * **Virtualization Tech** | * VMware, Virtual box |
| * **Scripting** | * Perl, Python, YAML, Ruby, Bash, Shell, PowerShell, JSON. |

***Verizon, Irving, TX***

***Sr. AZURE DevOps Engineer***  *(* July 2018 to Present)

***Responsibilities:***

* Created and establish build process using **Azure** Devops to perform builds efficiently and deployment of the web applications in Azure.
* Using **Azure Resource Manager** (ARM) to deploy update or delete all the resources for our solutions in single, coordinated operations.
* Working on **Azure VPN-point to site**, Azure custom security, Endpoint security and **firewall, Azure Storage, Web apps, VM, Monitoring, Function app, AAD, Application Insights, ARM** etc**.**
* Implementing **IAAS, PAAS** and **SAAS** services, Azure recovery vault, proven ability in successfully analyzing an organization's cloud migrations.
* Installed and configured **Pivotal cloud foundry** (PCF) application manager, configured LDAP for authorization, configuring log generator for logs in **PCF (Splunk).**
* Converted existing Terraform modules that had version conflicts to utilize ARM during **Terraform** deployments to enable more control or missing capabilities.
* Working on **Terraform** tool for building, changing, and versioning infrastructure safely and efficiently.
* Hands on experience in Chef Enterprise Hosted as well as Installed Workstation, **Bootstrapped Nodes**, Wrote **Recipes and Cookbooks** and upload them to chef-server managed On-site OS /Applications /Services/Packages using **Chef**.
* Written Several **Chef cookbooks** from scratch consisting of recipes that can Provision several pre-prod environments consisting of Weblogic domain creation, Deployment automation, instance mirroring, and several proprietary middleware installations.
* Installing, Configured and management in **Ansible** Centralized Server and creating the **playbooks** to support various middleware application servers, and involved in configuring the **Ansible tower** as a configuration management tool to automate repetitive tasks.
* Automated configuration management and deployments using Ansible playbooks and **YAML** for resource declaration. And creating roles and updating **Playbooks** to provision servers by using Ansible.
* Creating a DevOps workflow for managing Docker Life cycle which includes versioning of docker files in **GitLab**, building docker images, scanning docker images using Opens CAP, notifying corresponding teams and pushing of docker images to Artifactory. Configured this entire automation in Jenkins jobs
* Designing and implementing fully automated server build, management, monitoring and deployment solutions spanning multiple platforms, tools and technologies including **Jenkins, Docker, Ansible, SSH, and packaging**, deployment and testing.
* Maintaining the production-based **Kubernetes** cluster (installation, upgradation & so on) by using Ansible scripts.
* Experience on**Kubernetes** during debugging, leading up to production when multiple Application builds must be tested for stability
* Jenkins CI configurations according to the requirement for Automated **CI/CD** pipeline (Build & Release) Automating Jenkins jobs creation using job-dsl plugin through configuration as code.
* Extensively worked Jenkins for continuous integration and for End to End automation for all build and deployments. Experience in administrating **Jenkins**, plugin installation
* Connecting Continuous Integration system with **GitHub** repository and continually build as the check-ins come from the developer.
* Automated weekly releases with **ANT/Maven** scripting for compiling Java code, debugging and placing builds into Maven **repository**.
* Automated environment monitoring & reporting processes using **Splunk & shell scripting**.
* Installed and managed monitoring tools like **Splunk**, Analyzing and reviewing the system performance tuning and network configurations, CPU utilization, memory profiles, disk utilization, network connectivity, system log files.
* Working on migrations of all the projects from different **ALM** tools to **Azure DevOps** using **PowerShell** scripts.
* Working in Build & Release Management process, including end-to- end code configuration, deployment **java and .Net** based projects.
* Experience in handling administrative tasks, **database** monitoring tasks, diagnosing database problems and fixing the issues, Scheduling the jobs from **crontab**.
* Responsible for day to day system administration and patching activities through **SCCM** on windows-based platform servers.
* Deployed Windows Servers in **QA, Dev, Test** and **Prod** environments from Managed disk snapshot using **PowerShell scripts**.

***Environment:*** *Azure, ARM, Templets, Azure Virtual Machines, Pivotal Cloud Foundry, Terraform, Kubernetes, Docker, Chef, Jenkins, GIT, Splunk, Power Shell Script, .Net, Linux/Unix, Red Hat, Centos.*

***Blackhawk Network, Sunnyvale, CA***

***DevOps/AWS Engineer*** ( January 2017 to June 2018).

* ***Responsibilities:***
* Supported **AWS** Cloud environment with 250+ AWS instances and configured **Elastic IP & Elastic Storage** and experience working on implemented security groups.
* Integration of web portal and users associated with **S3 bucket**. Used **Amazon S3** to backup database instances periodically to save snapshots of data.
* Creating snapshots and **Amazon machine images** (AMIs) of the instance for backup and creating clone instances.
* Worked to Automate the legacy dotnet application to move it to **cloud Platform** (AWS) using Infrastructure as code **Terraform** and **chef** to Spin Up **AWS EC2 Instances, RDS, S3 and ELB**.
* Involved in configuring different resources like **IAM, EC2, S3, RDS etc**.
* Implemented **Chef Recipes** for Deployment on build on internal Data Centre Servers. Also re-used and modified same Chef Recipes to create a Deployment directly into **Amazon EC2 instances**.
* Creating, validating and reviewing solutions and effort estimate of converting existing workloads from classic to **ARM based Azure Cloud Environment**.
* Experienced on **Kubernetes** during debugging, leading up to production when multiple.
* **Jenkins** pipeline to build the latest code (pull from SCM), build it using **Maven**, upload it to nexus, deploy in **Docker container/AWS.**
* Configure automated build pipeline in **Azure DevOps** for multiple projects. Designed and configured **Virtual Networks (VPC/VNET), subnets, DHCP address blocks, DNS settings, security policies and routing**.
* Worked with cluster mode RabbitMQ used as message queue in **OpenStack**.
* Worked on **Terraform** for **AWS infrastructure** provisioning to create **custom-sized VPC, subnets, EC2 instances, ELB, security groups**.
* Managing **Linux and Ubuntu and Windows instances** with **Chef** Configuration management tool and patching servers.
* Automation with **Ansible**. Patching, software installation etc. **Creating playbooks** for automatic deployment and configuration of RHEL servers for test and production environments.
* Creating **CI/CD** pipelines by integrating **Git, GITLAB, Maven, Docker, Kubernetes & Ansible**.
* Worked on writing an automation **bash shell script**, which cleans up of unused docker images on virtual machines and configured a **Cron job** to run this script at regular intervals.
* Working on creation of custom **Docker** container images, tagging and pushing the images.
* Application builds must be tested for stability.
* Performed continuous integration automation using **Jenkins**, able to use excel, knowledgeable in core **java and SQL**.
* Containerized **Jenkins** with **Docker** and deploying using a scalable architecture - using **Kubernetes**.
* Involved in migrating from **SVN to GIT**. Connected continuous integration system with GIT version control repository and continually build as the check-inn's come from the developer.
* Deal with errors in pom.xml file to obtain appropriate builds using **maven build tool**.
* Creating a monitoring dashboard and Configuring an alert for **AWS instances in New Relic tool**.
* Wrote **Python Code using Ansible Python API** to **Automate Cloud Deployment** Process.
* Worked on Build & Release activities for technologies like **Java and Python**.
* Worked on data bound controls Grid view, Details view, Forms view for displaying data from database.
* Responsible for the installation and administration of **Linux (RHEL 4/5, CentOS, Fedora)** servers and windows servers.
* Providing remote support for all our clients. Resolved problem related to **Linux OS** and **windows OS** by developing solutions to ensure the smooth operation.

***Environment:*** *Amazon wed services (AWS EC2/AMIs/VPC/S3/IAM/glacier), Open Stack, RHEL, Centos, Ubuntu, Solaris, Route Tables, Terraform, Kubernetes, Ansible, YAML, Apache, Postgres, CI, SSH, Jenkins, Maven, Cassandra, New Relic, Java/J2EE.*

***P&G, Boston, MA***

***Sr. Site Reliability Engineer (***August 2016 to Dec 2017)

***Responsibilities:***

* Deploy and monitor scalable infrastructure on **Amazon web services** (AWS) & configuration management using **Chef**.
* Managing multiple **AWS instances**, assigning the security groups, **Elastic Load Balancer and AMIs**.
* Performed application server builds in **EC2 environment** and monitoring them using cloud watch.   
  Creating Private networks and sub-networks and bringing instances under them based on the requirement. Experienced in cloud automation using **AWS cloud Formation Templates, Chef, Puppet**.
* Implemented **Chef Cookbooks** for OS component configuration to keep **AWS server's** template minimal   
  Written Chef Cookbooks for various **DB configurations** to modularize and optimize end product configuration.
* Automated configuration management and deployments using **Ansible playbooks** and **YAML**for resource declaration. And creating roles and updating **Playbooks** to provision servers by using **Ansible**.
* Configured and maintained **Jenkins** to implement the **CI** process and integrated the tool with **GIT and Maven** to schedule the builds.
* Migrated source control tool from Clear Case to Subversion (SVN) and build tool from **Ant to MAVEN**.
* Analysis and Implementation of new requirements related to **Nagios Monitoring**. Experience is Administration of **Nagios**.
* Hands on experience in development of utilities using **Shell and python scripting** to automate processes.
* Hands on experience of Infrastructure and Application Admin scripting using **PowerShell**. Expertise on writing **PowerShell scripts** to perform unmanned tasks.
* Hands on experience in building deployment/build scripts and automate solutions using scripting languages such as **Shell Scripting (Bash), Python, and Ruby.**
* The configuration of **Web Server, Application Server, Database Server (MySQL/Oracle Database) Database** administration, Backup administration and ensuring business continuity.
* Sound Knowledge on **Linux Administrator, AWS Server Management, Windows Administrator, Server Administrator, Migration, Technical Support Executive, ADS, IIS, FTP, Active Directory, Mailbox, Cloud**.

***Environment:*** *AWS(*EC2/Route53/AMIS/VPC/S3/RDS/DynamoDB/SNS/SQS)*, Ansible, Python, Bamboo, SVN* RedHat Linux (4.x/5.x/ 6.x)*, Maven, Nagios, Power Shell, Bash Shell, Corn Jobs, SQL, Linux, Solaris (9/10/11).*

***Technowell, Hyderabad.***

***Build Release Engineer* (**Sep 2015 to Nov 2016)

***Responsibilities:***

* Wrote **Puppet** manifests in **Ruby** for deploying, configuring and managing collected for metric collection and monitoring.
* Involved in Leading Automation deployment team and working with **Puppet**, and written puppet modules for Application deployment.
* Install **Jenkins** on **Linux** machine and create a master-slave configuration to implement multiple parallel builds through a build farm.
* Extensively worked on **Jenkins** by installing, configuring and maintaining for the purpose of **Continuous Integration** (CI) and for End-to-End automation for all build and deployments.
* Worked in all areas of **Jenkins** setting up CI for new branches, build automation, plugin management and securing **Jenkins** and setting up master/agent configurations.
* Installed and configured **Jenkins**, installed plug-in, configured security, created a master and slaves for implementation of multiple parallel builds.
* Implemented and Maintained the Branching and Build/Release strategies utilizing **GIT** source code management.
* Used build tools like **ANT** for the building of deployable artifacts such as war & ear from source code.
* Redesigning and redeploying the **Nagios** implementation. Nodes automatically added/removed themselves via **Puppet**.
* Wrote **Python** scripts with Cloud Formation templates to automate installation of **Auto scaling**, **EC2**, **VPC** and other services.
* Wrote scripts in **Shell** and **YAML** to automate daily tasks and deployments to eliminate the manual process.
* Converted **Java** projects into **Maven** projects by creating POM file and ensured all the dependencies are built.
* Worked on **ASP. NET** web applications and **.NET WCF** services with a little exposure to SQL Server database development.
* Deployed **SQL scripts** in **Oracle**, **Abinitio** tags in various test environments.
* Automated deployment of **Linux** applications, system configuration and security settings using **Puppet** Enterprise.

***Environment:*** *Linux (RedHat 7.x, 6.x, 5.x), Puppet, Jenkins, CI/CD, GIT, ANT, Nagios, Python, YAML, Java, Maven, .Net, SQL Script.*

***Eion technologies, Hyderabad, India***

***UNIX/Linux Administrator***  *( Aug 2012 to July 2015)*

***Responsibilities:***

* Performed system administration and operations tasks using **Chef**, **Nagios**.
* Automated **Nagios** alerts and email notifications using **Python script** and executed them through **Chef**.
* Created Bash scripts that ran on **Salt stack** minions pulling out relevant system information. And automated the cloud deployments using **Salt stack**.
* Used **Unix/Linux** **Shell Scripting**, **Bash**, **Perl**, and **Python** for monitoring and to automate the build and deployment process.
* Installation of patches and packages using **RPM** and **YUM** in **Red hat Linux**.
* Worked on **Red Hat Enterprise Linux** (RHEL) toward the commercial market.
* Perform configuration of standard **Linux** and network protocols, such as **SMTP**, **DHCP**, **DNS**, **LDAP**, **NFS**, **HTTP**, **SNMP**.
* Involved in Building and configuring **Red Hat Linux Servers** using **Kickstart server** as required for the project.
* Upgraded **Red hat Linux OS** on **Web Sphere**, **JBOSS** and **Oracle** database servers from V3, V4 to V5.
* Developed automation scripting in **Python** using **Puppet** to deploy and managed Java applications across **Linux servers**.
* Troubleshooting **Linux** network, security related issues, capturing packets using tools such as **IP tables**, **firewall**, and **TCP** wrapper and **NMAP**.
* Work experience on hosting **ASP**, **ASP.NET** and **HTML** web applications on **Windows 2003** servers.
* Worked on **Windows Server 2008** to active directory installation and configuration, Performance tuning and management for **Linux server** to resolve issues.

***Environment:*** *Chef, Nagios, python script, Salt Stack, RPM, YUM, Red Hat Linux Server, .Net, HTML, Windows 2003/2008.*