**Sharath Kumar Tirumalasetti**

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DevOps Engineer | Amazon Web Services (AWS)| Azure cloud | Continuous Integration (CI) | Continuous Delivery (CD) | Build & Release Management | Configuration Management (CM) | Infrastructure Management | Automation| Security

***Certifications***: **Advanced Architecting on AWS, AWS Certified Solutions Architect – Associate Level, Certified SAFe Practitioner.**

### **PROFFESIONAL SUMMARY**

* 10+ years of experience as a **Sr. Cloud/DevOps Engineer** for automating, building, releasing, and configuring changes from one environment to another environment.
* Created development and test environments of different applications by provisioning **AWS ECS** using **ECR** **Docker, Bash, Elastic search** and **CloudFormation**.
* Experience in AWS, which includes CloudFormation, Elastic Load Balancer, CloudWatch, IAM, Route 53, SQS, VPC, S3, DynamoDB, SNS, RDS, Lambda.
* Extensive experience in using Version control systems includes **Subversion (SVN), GIT, Bitbucket.**
* Experience in configuration management tools **Puppet, Chef, Ansible**.
* Proficiency in writing automation scripts using **Shell, PowerShell** in **Puppet** to support infrastructure as code and continuous deployment.
* Experience working on **Docker hub**, creating **Docker images,** and handling multiple images primarily for middleware installations and domain configurations.
* Expertise in using build tools like **MAVEN and ANT** for the building of deployable artifacts such as **WAR** & **EAR** from source code.
* Extensively worked on **Jenkins, Hudson, Bamboo** for continuous integration and for End-to-End automation for all build and deployments.
* Extensive knowledge and administration experience in **JIRA** and knowledge on other **Atlassian** products like **Bitbucket and Bamboo**.
* Good understanding of full SDLC with Solid expertise on software Build/Release, Configuration process and DevOps Engineering.
* In-depth knowledge of **Agile** (**SCRUM**), **SAFE** methodology.

**Technical Skills:**

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| --- | --- |
| Cloud Technologies | AWS,IBM, MS Azure, Open stack, Docker. |
| Databases | MySQL, SQL Server, ORACLE, PostgreSQL, Amazon RDS, Amazon Aurora and Amazon Redshift. |
| Monitoring Tools | Cloud Watch, Elk Stack, Splunk. |
| Automation and Build Tools | Bamboo, ANT, MAVEN, Hudson, Jenkins. |
| Configuration Management Tools | Chef, Ansible, Puppet. |
| Version Control Tools | Subversion, GIT, Tortoise SVN |
| Scripting | Bash, Shell, Python, Ruby, Java, JavaScript, HTML |
| Networking Infrastructure | TCP/IP, DNS, DHCP, R53, LDAP, ADDS, SAN. |

### **Professional Experience**

**Kaiser Permanente**

**Sr. DevOps Engineer March 2022 – Present**

**Responsibilities:**

* Design, build and maintain infrastructure on **Cloud** environments.
* Extensively worked on **Jenkins** to implement Continuous integration and Continuous deployment processes.
* Using **Jenkins** pipelines to drive all micro services builds out to the Docker registry and then deployed to **Kubernetes**, Created Pods and managed using Kubernetes.
* Prepared capacity and architecture plan to create the **Azure** Cloud environment to host migrated IaaSVMs and PaaS role instances for refactored applications and databases.
* Configured VMs in availability sets using **ARM templates** to provide resiliency for IaaS based solution and scale sets using Azure Resource Manager to manage network traffic.
* Worked on writing **Terraform templates** that can spin up infrastructure for multi-tier application and provisioned boot strapped software on Cloud with terraform and worked with Terraform key features such as **Infrastructure as code, Execution plans, Resource Graphs, Change Automation.**
* Experience in **Azure Network Security Groups, Azure Operational Insight and OMS, Azure Premium Storage, Site Recovery, Network Virtual Appliance, Client-Side encryption** for Azure storage objects.
* Developed different environments of different applications on **Azure cloud** by provisioning **Kubernetes clusters** on AKS instances using **Docker.**
* Responsible for maintaining deployments across different environments by automating processes using **Jenkins.**
* Worked with multiple teams/developers to reduce the Application and security defects by utilizing Whitehat scan analysis and Tide-lift alignment.
* Worked on SonarQube implementation for new projects and improved the score for existing projects.
* Ensuring **Network Uptime** and troubleshoot any issues or outages to make sure business continuity.
* Developed Azure Terraform to deploy the infrastructure necessary to formulate development, test, and production environments.
* Responsible for managing the code base and branching strategy for multiple teams.
* Configured **Azure VPN gateway and established Site-to-Site connectivity, Express Route** with On Premise Networks and Azure.

**Environment: Azure Cloud, GITHUB, Docker, Ansible, Oracle, Jenkins, Kubernetes, OpenShift, PowerShell, Bash, ANT, Maven, PUPPET, JIRA, Apache Tomcat.**

**IBM Watson Health Aug 2021 – March 2022**

**Sr. DevOps Engineer**

**Responsibilities:**

* Design, build and maintain infrastructure on **Cloud** environments.
* Develop, manage, and troubleshoot a SaaS AI health cloud offering made up of multiple **Kubernetes microservices**.
* Responsible for analyzing the existing **On-premise** applications, re-engineering the existing services efficiently to migrate from On-premise data center to cloud environments.
* Extensively worked on **Jenkins** to implement Continuous integration and Continuous deployment processes.
* Using **Jenkins** pipelines to drive all micro services builds out to the Docker registry and then deployed to **Kubernetes**, Created Pods and managed using Kubernetes.
* Created Jenkins CICD pipelines for continuous build & deployment and integrated Junit and **SonarQube** plugins in Jenkins for automated testing and for Code quality check.
* Working on **OpenShift** platform in managing Docker containers and Kubernetes Clusters.
* Working on build tools such as Maven, Ant and configuring pom.xml and build.xml according to the application requirements.
* Utilized **Kubernetes** for the runtime environment of the CI/CD system to build, test deploy.
* Responsible for writing scripts to create **Terraform**, **CloudFormation** templates which bootstrap’s **EC2 instances** to automate the initial installation, configuration of the OS and application stack.
* Configured remote **Splunk** servers for monitoring the application health.
* Worked on migrating artifacts from **Nexus** repository to **JFrog** artifactory.
* Setup monitoring and logging tools like **ELK** Stack (Elastic search, Log stash, and Kibana).
* Responsible for weekly promotions from lower environments (Dev, test and Stage) to Production environments.
* Work in an agile, collaborative environment to build, deploy, configure, and maintain systems.

**Environment: IBM Cloud, AWS Cloud, GITHUB, Docker, Ansible, Cloud Watch, Oracle, MySQL, Jenkins, Kubernetes, OpenShift, PowerShell, Bash, ANT, Maven, PUPPET, JIRA, Apache Tomcat.**

**Cummins Inc, Indianapolis, IN. Oct 2019 – Aug 2021**

**Sr. AWS Cloud Engineer/ DevOps**

**Responsibilities:**

* Design, build and maintain infrastructure on **AWS** environment.
* Responsible for building infrastructure on AWS cloud by generating CloudFormation templates in **YAML** or **JSON** to provision the required infrastructure resources such as Amazon **Lambda**, **S3, EC2, RDS databases** etc. by creating stack on AWS CloudFormation.
* Monitoring AWS resources and applications that deployed on cloud by creating **alarms**, enabling notification service using **AWS CloudWatch**.
* Created roles **in AWS Identity Access Management**, manage users and groups using permissions to allow and deny access to AWS resources.
* Responsible for analyzing the existing **On-premises** applications, re-engineering the existing services efficiently to migrate from On-premises data center to **AWS cloud**.
* Responsible for writing the logic for **AWS Lambda functions** using python/Java, adding triggers to the AWS Lambda to further process the flow in applications.
* Responsible for creating automated **build** and **deploy** capabilities in the infrastructure and Integrating with **SonarQube** which picks up the code committed and scans for security vulnerabilities, code smells for continuous inspection of code quality.
* Worked on setting up tracking and monitoring services such as **AWS CloudTrail, CloudWatch Alarms**, Centralized Logging, Notification and **AWS Config** etc.
* Responsible for maintaining deployments across different environments by automating processes using **AWS Code Deploy.**
* Responsible for creating pipelines using **AWS Code Pipeline** to automate deployment process for different environments.
* Implemented Customers (internal & external) sign in portal by enabling SSO using AWS Route 53.
* Responsible for maintaining all the documentation on **Confluence** and Team SharePoint location, maintain change log for better re-usability of the code.

**Environment: AWS (CloudFormation, EC2, S3, RDS, CloudWatch, Lambda, R53, VPC, EBS, ELB), Terraform, SonarQube, SAFE Agile, Jira, Linux, Docker, Kubernetes, Bash, Java, Python.**

**Invesco Ltd, Houston, Tx. March 2019 – Oct 2019**

**Sr. AWS Cloud Engineer/ DevOps**

**Responsibilities:**

* Design, build and maintain infrastructure on **AWS** environment.
* Implemented **infrastructure as code (IAC)** templates to simplify infrastructure management by allowing end users to provision and manage AWS resources such as **S3, RDS, EC2** using **AWS Service Catalog**.
* Launched **AWS EC2** instances (Linux/CentOS/RHEL/Windows) for development, test, and production environments.
* Responsible for the development and maintenance of **Auto Scaling** and **Elastic Load Balancers**.
* Worked on analyzing the existing On-premises applications, re-engineering the existing services efficiently to migrate from On-premises running applications from **physical data center to AWS cloud** without disconnecting the application. And replicate memory, network connectivity and storage of the virtual machine.
* Created pipelines using **AWS Code Pipeline** to automate deployment process for multiple environments, once the code is committed it will be built, tested, and deployed to Dev environment and accepted criteria to higher environment (QA & Production) in an automated pipeline without any manual intervention.
* Automated build and deploy capabilities in the infrastructure using the continuous integration tools such as **Bamboo**. Which picks up the code committed in **S3** and scans for security vulnerabilities, code coverage for syntax errors and defects.
* Developed DevOps Scripts in **Groovy** to automate and collection analysis of Cassandra.
* Created a validation pipeline for **AWS Service Catalog** Product using **AWS Code Pipeline, AWS Code Build, AWS CloudFormation,** and **AWS Code Commit.**
* Responsible for designing and testing infrastructure using Cloud best practices, working with team members and users to triage requests.
* Responsible for identifying and eliminating gaps in the existing On-premises infrastructure using cloud practices, support internal continuous integration and deployment teams to integrate existing clouds
* Worked on **AWS S3 Cross Region Replication** to enable asynchronous copying of objects across buckets to different AWS Regions.
* Developed Controllers for request handling using **spring** framework.
* Encrypted **S3** buckets and **RDS** databases using **AWS KMS** **KEY** by storing the key value in SSM parameter and built a **IAM** policy, attached to the appropriate User role.
* Documenting the entire deployment process which includes backup procedure, step by step deployment procedure and followed by post deployment testing procedure.
* Using **IAM** enabled user access (SSO & Directory Service) to AWS environments, assign roles, attach policies, which helps to create & manage AWS resources.
* Used Amazon **Route53** to manage DNS zones globally as well as to give public DNS names to ELB’s and Cloud front for Content Delivery.
* Utilized JIRA for logging & tracking of work, documented all my work using **Confluence**.

**Environment: AWS (CloudFormation, EC2, S3, RDS, CloudWatch, Lambda, VPC, EBS, ELB), ServiceNow, Bamboo, GitHub, Jira, Linux, Docker, Kubernetes, Terraform, Bash, Java, Groovy, Python.**

**Rent-A-Center, Plano, TX. June 2017 – Feb 2019**

**Sr. AWS Developer/ Cloud Engineer**

**Responsibilities:**

* Highly skilled in Configuring and administering **AWS** like **EC2 instances, EBS volumes and snapshots, Elastic IP's (EIP), Key pairs, Auto scaling, Elastic load balancing, AWS Cloud Formation and Amazon Cloud watch for different zones.**
* Experience in implementing identity and access management solutions on SSO, SAML, OAUTH and OIDC protocols using the RSA Access Manager & Federated Identity Manager.
* Managed EC2 instances utilizing **Launch Configuration**, Auto scaling, Elastic Load balancing, automated the process of provisioning infrastructure using **Terraform**, **Cloud Formation template’s**, and used Cloud Watch to create alarms and monitor environments.
* Designed & implemented VPC service for extension of on-premises datacenter with AWS Cloud using **VPN & Direct connects services**.
* Migrating present Linux environment to AWS by creating and executing a migration plan, deployed EC2 instances in VPC, configured security groups & NACL’s, attached profiles and roles using AWS Cloud Formation templates and **Ansible** modules.
* Scripting infrastructure and (Linux) machine provisioning using bash and the Python **AWS-SDK**.
* Designed and Developed automation test scripts using **Python**.
* Build and Release **software baselines, code merges**, **branch and label creation** in **Subversion** and **GIT**, worked on migration from Subversion to **Git** (DVCS).
* Expertise in Installing, configuring, and administering **Jenkins** Continuous Integration tool on Linux machines along with adding/updating plugins such as **GIT, ANT, Ansible, EC2, Sonar, Deploy to Container, Build Pipeline etc.**
* Written some **Groovy** scripts for setting up LDAP configuration for Jenkins using security matrix.Experience in installing **Docker** using Docker toolbox and installing and configuring **Kubernetes.**
* Hands on experience in container management using Docker by writing **Docker files**.
* Experience in setting up the automated build on **Docker HUB**.
* Installed and configured Nexus repository manager for sharing artifacts between internal teams and created proxy **Nexus** repositories to speed up the build process.
* Responsible for CI and CD using **Jenkins**, **Maven** and **Ansible.**
* Responsible for writing the Design specifications for the generic and application specific web services in **Groovy Grails**.
* Used **ServiceNow** reporting to analyze and troubleshoot reports, ensuring data accuracy and timeliness.
* Highly Expertise in Ticketing tool **JIRA** to track defects and changes for change management, monitoring tools like **CloudWatch** in different work environments in real and container workspace.
* Worked with Chef for **Orchestration** of Deployments for various servers.
* Worked in the **CHEF** environment for configuration management of existing instances on AWS and data centers.
* Ensured **System Uptime** by **monitoring** production systems and responding to issues with corrective action**.**
* Provided on-call support for **production** issues.

**Environment: AWS (EC2, S3, SQS, Lambda, VPC, EBS, RDS, ELB), Ansible, Spring Boot, ServiceNow, Jenkins, Maven, Jira, Linux, Docker, Kubernetes, Terraform, Bash, Java, Python, Groovy, Chef.**

**Prime Therapeutics, Minneapolis, MN. June 2016 - May 2017**

**AWS Developer**

**Responsibilities:**

* Responsible for configuration management, maintenance and troubleshooting of projects, implemented a **Continuous Delivery (CD)** framework using **Jenkins**, **Chef**, and **Maven** in Linux.
* Worked on **GIT** and Subversion (**SVN**) version control systems, by setting up the GIT and SVN repositories for Jenkins build jobs, polled Version Control Systems in a periodic manner using Cron Jobs.
* Installed, Configured and Administered Hudson/ Jenkins Continuous Integration Tool, experienced in working with Jenkins to build and test the applications.
* Installed and configured Artifactory for sharing artifacts between the teams internally.
* Setup the **Jenkins jobs** for Continuous integration process and to execute test cases.
* Written PowerShell script to automate Active Directory and server tasks and generate reports for administrators and management.
* Maintain Requirements traceability in **ServiceNow** **SDLC** module.
* Designed and administrated databases for Oracle and MYSQL to support various web programming tasks.
* Designed and Implemented scalable, secure cloud architecture based on **MS Azure** Cloud platform.
* Developing a Continuous Delivery **(CD) PIPELINE** with Docker, Jenkins, **GITHUB** and **Azure** pre-built images.
* Migrated on premises Databases to MS Azure platform.
* Written multiple scripts in Ruby and Bash Shell for different migration tasks in the company on to Azure.
* Strong expertise in Log monitoring using **Nagios** in different work environments.
* Automated the application and MySQL Container deployment in Docker using **Ruby**.
* Build Jenkins jobs to create Azure Infrastructure from GitHub repositories containing Terraform code.
* Written scripts in **Ruby** which integrated with **Azure-API** to control instance operations.
* Created a Virtual Network on Windows Azure to connect several on-premises servers.
* Handled Jira issues to prioritize and act per issue sensitivity.
* Worked with development/testing, deployment, systems/infrastructure, and project teams to ensure continuous operation of **Dev and Test systems**.
* Ensured **Network Uptime** and troubleshoot any issues or outages to ensure business continuity.
* Involved in 24X7 Production support, Build and Migration Assignments.

**Environment: Solaris, SVN, GITHUB, Docker, Ansible, Cloud Watch, Oracle, MySQL, Jenkins, Ruby, PowerShell, Bash, ANT, Maven, PUPPET, MS AZURE, JIRA, Apache Tomcat.**

**Intercontinental Hotels Group (IHG), Atlanta, GA. Jan 2015 – May 2016**

**Software Developer**

**Responsibilities:**

* Created, deployed, and tested an End-to-End CICD pipeline for different applications utilizing Jenkins as the Integration server for Dev, QA, Staging, UAT and Prod Environments.
* Created BASH and Python scripts utilizing **lambda** functions for automation of the build and release process.
* Setup VPC's and subnets utilizing CloudFormation for different applications.
* Made customized AMIs based on existing AWS EC2 instances by using create image functionality, subsequently utilizing this snapshot for disaster recovery.
* Build servers utilizing AWS: launching EC2, importing volumes configuring security groups and Elastic IP's, auto-scaling, load balancers, Route 53, SES and SNS in the defined VPC.
* Installed and configured Jenkins and created customized jobs to commencement builds for various environments. Integrated Subversion (SVN) into Hudson / Jenkins to automate the code check-out process.
* Coordinated **Selenium** Testing Framework with Jenkins for different Environments.
* Enabled Logging on EC2, S3, Dynamo DB, RDS, CloudTrail, CloudFront, AWS config, AWS inspector, AWS API gateway, Lambda Application server.
* Worked on Setting the Splunk server and configured Splunk Addon for AWS, Install Splunk Agents and Integrate **Splunk** to get logs.
* Backing up EBS volumes and similar maintenance tasks by writing AWS CLI scripts.
* Utilized Docker in Environment variables, Configuration records, Option sorts and Strings.
* Based on the elastic load balancer traffic, configured auto scaling in customized VPC and using ELB health check to trigger auto scaling actions.
* Executed Chef Recipes for Deployment on build on internal Data Center Servers. Additionally, re-utilized and altered same Chef Recipes to make a Deployment straightforwardly into Amazon EC2 instances.
* Wrote Recipes & Cookbooks and uploaded them to Chef-server, Installed Workstation and Bootstrapped Nodes.by using chef cookbooks managed on-site applications and EC2, S3 and ELB
* Experienced in setting up **MySQL, SQL, Aurora** on AWS.

**Environment: Docker, Chef, AWS tools, SVN, ANT, Jenkins, LAMP, Maven, Apache Tomcat, Shell scripting, Nexus Artifact repository.**

**Thermo Fisher Scientific, San Diego, CA. Oct 2013 - Dec 2014**

**Software Developer**

**Responsibilities:**

* Worked with **Chef Enterprise** Hosted as well as On-Premises, Installed Workstation, **Bootstrapped** Nodes, Wrote **Recipes and Cookbooks** and uploaded them to Chef-server, Managed On-site OS/Applications/Services/Packages using **Chef** as well as **AWS** **for EC2/S3/Route53 & ELB with Chef Cookbooks**.
* 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**
* Extensively worked on **Hudson, Jenkins, and Anthill Pro** for continuous integration **(CI)** and for End-to-End automation for all build and deployments.
* Built end to end **CI/CD Pipelines** in **Jenkins** to retrieve code, compile applications, perform tests and push build artifacts to **Nexus Artifact**.
* Worked on version control tool **GIT** to assist developers and programmers in branching, merging and revert code.
* Built and managed a highly available monitoring infrastructure to monitor different application servers and its components using **Nagios with Puppet** automation.
* Participated in migration from **ANT to Maven** for all development teams within the company.
* Analyzed the **ANT** build projects for conversion and converting to **Maven** Involved in building and configuring **Red Hat Linux Servers** using **Kickstart** server as required for the project.
* Deployed **Portlets** manually using **Admin Console**.
* **DNS, LDAP, NFS, NIS and Samba** configured and administered in **Red Hat Linux**.
* Configured **Kickstart** servers and booted the images using **PXE** in **Red Hat Linux** and used **Red hat Satellite** server extensively.

**Environment:** **JENKINS, GIT, SVN, SPLUNK, LINUX, CHEF, ANT, MAVEN, RHEL 6.x, CentOS, Ubuntu, Solaris, AIX, VMware, New relic, RHEL 4.x, Windows NT, WebLogic 9.0/8.1, Logical Volume Manager.**

**Inspira Technologies, Hyderabad, India. Jan 2013 – Sep 2013**

**Linux Administrator**

**Responsibilities:**

* System Installation and configuration (**RHEL, Solaris, Windows Servers**)
* Monitoring, analyzing, and responding to security events utilizing security event management and reporting tools.
* Account, user &group administration, Permissions policy management and quota implementation.
* System performance monitoring, tuning and log management.
* **TCP/IP** Networking, **Troubleshooting** and Linux Network Administration.
* **Installation, Configuration, support, and security implementation on various services like DHCP, SSH, NFS, SAMBA, DNS, HTTPD, SEND MAIL**.
* Performed OS installations, OS Upgrades, and Server Patching by configuring **PXE and DHCP** server using **Kickstart Configuration** and by using **Red Hat Satellite** server.
* Implemented and configured brand new **VMware virtual infrastructure cluster** running on servers and on storage array.
* Installation and configuration of database systems e.g., **MySQL, Oracle 11g/12g**.
* Involved in creating virtual machine using **Oracle Virtual Manager, Creating server pool, VM Cloning**.
* System monitoring and remote connection management using **telnet and SSH connections**.
* Experience in setup **Storage area Network (SAN) and NAS** and file system backup and restore.

**Environment: Sun Solaris, Red Hat Linux (RHEL 4), Oracle 11g/12g, TCP/IP, DNS, DHCP, NFS, SAMBA, Apache, POSTFIX, POP3, SMTP, MySQL, Oracle11g/12g, VMware.**

**Education: Bachelor of Technology – Jawaharlal Nehru Technological University, Hyderabad.**