**Senior DevOps Engineer/ Senior Cloud Engineer**

**Gowthami K**

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**Background Summary:**

* Over 10 years of IT Industry experience with DevOps, Cloud Management, Configuration Management, Build & Release Management from one environment to other and deploying to servers.
* Expertise in maintaining **Docker containers** and docker images for run time environment and worked with containerization tools, can implement transition to **Docker** and develop distributed cloud system using **Kubernetes**.
* Experience in Configuring **Auto Scaling** in customized **VPC**, based on **elastic load balancer (ELB**) **traffic** and using **ELB health check** to trigger **auto scaling** actions. Deployed **Auto Scaling** policies to scale up/down **EC2** instances based on **ELB health checks** and created alarms to be used in **auto scaling** decision making policies. Familiar with **AWS ACM** and have installed SSL certificates on various Load Balancers.
* Experience in configuring RDS instances using **Cloud formations** and **Terraform** and used **Terraform** to map complex dependencies and identify network issue and focusing on high-availability, fault tolerance, and **auto-scaling** using **Terraform** templates. And used **Terraform** to write IAC to build Production environment in **Azure Cloud.**
* Good knowledge and experience in using Elasticsearch, kibana and fluent, CloudWatch, Nagios, Splunk, Prometheus and Grafana for logging and monitoring.
* Extensive experience in **AWS Lambda** functions in **python** for **AWS's Lambda** which invokes **python scripts** to perform various transformations and analytics on large data sets in **EMR** clusters. **AWS Elastic Beanstalk** as **Platform as a service (PaaS)** to manage the **AWS cloud environment.**
* Hands on experience using **Argo CD** to trigger fully automated builds from **GitHub** for the applications which needs often build releases. Utilized advantages of **GITOPS** in the build and release processes for automation using **Bitbucket as Version Control.**
* Extensive experience on **SALT stack, knowledge in Dynamite, AutoSys, Zabbix monitoring Tool,** **NoSQ**L like **Redis.**
* Experienced in branching, tagging and maintaining the version across the Environments using SCM tools like **Git, GitLab, GitHub and Subversion (SVN)** on **Linux** and **windows platforms.**
* Experience in building **Docker images** using **GitLab-ci build** automation runner
* Automated deployment from **GitLab-ci to OpenShift**
* Experienced in production-grade **Kubernetes** that allow enterprises to reliably deploy and run containerized workloads across private and public clouds. Managed **Kubernetes** charts using Helm. Created reproducible builds of the **Kubernetes** applications, managed **Kubernetes** manifest files and Managed releases of Helm packages.
* Expertise in migrations and automation of **Linux** based servers (**CentOS, RHEL, Ubuntu)** and windows-based servers (2008R2, 2012R2) from on-premises to cloud platforms such as **AWS** and **AZURE**. Deployed **Azure** **IaaS virtual machines (VMs)** and **Cloud services (PaaS role instances)** into secure VNets and subnets.
* Experience in maintaining **Amazon Web Services** and Hands on experience in Architecting Legacy Data Migration projects such as **Teradata** to **AWS Redshift,** migration, **Teradata** to **Snowflake** **Migration**, **AWS** **Cloud** from on-premises.
* Extensive experience in application deployment on **PCF** using **CF** push and **Urban code** deploy. Also, **PCF** backup for all the environments and set-up **Jenkins** **maven** build automation with uploads to **Pivotal Cloud** **Foundry (PCF).**
* Expertise in Azure infrastructure management (**Azure Web Roles, Worker Roles, SQL Azure, Azure Storage,** **Azure AD Licenses, Office365**). Virtual Machine Backup and Recover from a Services Vault using **Azure** **PowerShell** and **Portal**.
* Experienced in **Ansible** **Tower** **configuration**, setup, and playbook setup. Written **Ansible** Playbooks for installing Software packages, web applications in **Virtual Machines** and **AWS EC2 instances.**
* Extensive experience on **Ansible** modules to deploy **docker services** on the **docker** **swarm**
* **cluster** for the entire **microservices stack.** Worked with **Docker** container snapshots, attaching to a running container, managing containers, directory structures and removing **Docker images.**
* Web Application Development using **Groovy Grails jQuery, AJAX.**
* JIRA development with **Java** and **Groovy Scripting.**
* Experienced in OpenShift platform in managing **Docker Containers**, **Kubernetes Clusters**, and **Mesos** and implemented a production ready, load balanced, highly available, fault tolerant **Kubernetes** infrastructure and created **Jenkins jobs** to deploy applications to **Kubernetes Cluster.**
* Expertise in Continuous Integration for major releases in **Jenkins**. Created **Pipeline** in **Jenkins** by integrating **Git** and **Maven Plugins**. Created new build jobs in **Jenkins** admin console and configured global environmental variables.
* Experience in using **Nagios** and **New Relic** monitoring system and different Bug Tracking Tools like Remedy, **Jira, VSTS, ServiceNow** and Clear Quest. Designed, deployed and coordinated with different teams to enhance **ELK platform** and took ownership of modern technologies. And experience in **Splunk** solution design, architect, deployment and configuration of Splunk components like forwarders, Indexers, Search heads etc.
* Extensive experience in creating and deploying a tool to automate branch and project creation in **GIT** using Groovy in **Jenkins** file and Automating with **Chef**. Configuring Nginx, Apache tomcat through cookbooks. Working with **CloudTrail**. Created infrastructure in a coded manner (infrastructure as code) using **Chef** and **Ansible** for configuration management of **virtual environments,** and Vagrant for virtual machine and resource control.
* Expertise in creating **Python** scripts to automate daily networking tasks (Ex. auto config generation, retrieving information from network devices, parsing data, etc.) - including a custom FortiGate firewall config
* Good experience in writing Helm charts, Kubernetes yaml files for deployment of microservices into kubernetes cluster.
* Experience in managing and maintaining the **DevOps CD/CI pipeline** using **DevOps** suite which includes Continuous Integration of **Gitlab, Jenkins, JFrog Artifactory** and **XL Deploy**. Automated and connected the Jenkins jobs with **SonarQube** to generate and publish the unit tests.
* Worked at all phases of Software Development Lifecycle and handled change management process for application development.

**Technical Skills:**

* **Operating Systems:** Windows, Linux, Solaris, RHEL, CentOS.
* **Cluster Management:** Kubernetes, Docker Swam
* **Languages:** UNIX Shell-Bash scripting, JAVA/J2EE, Python.
* **Version Control Tools:** CVS, SVN, TFS, GIT, GitHub, Bit Bucket, Nexus, Perforce.
* **Virtualization Platform:** Virtual Box, Docker, Vagrant, EC2 Container Service (ECS), Micro Services
* **Deployment Tools:** Ansible, Chef, Puppet.
* **Build Tools:** ANT, Maven, Jenkins, Hudson, Bamboo.
* **Web Servers:** WebLogic, WebSphere, Tomcat, Jboss, NGNIX, Apache.
* **Cloud Technologies:** AWS, MS Azure
* **AWS Cloud Services:** AWS (EC2, S3, ELB, EBS, IAM, VPC, RDS, SNS, SQS, Glacier, Route53, Cloud Watch, Cloud Formation, Cloud Front, Auto Scaling, Elastic Cache, EMR, Red Shift).
* **Databases:** MYSQL, MS SQL, Oracle, MongoDB, AWS RDS.
* **SDLC:** Agile, Scrum, Sprint, Waterfall.

**EXPERIENCE**

**Morgan Stanley, New York June 2020 - Present**

***Senior DevOps AWS Cloud Engineer***

**Responsibilities:**

* Creating **S3buckets** and maintained and utilized the policy management of **S3 buckets** and Glacier for storage and backup on **AWS**.
* Setting **GitLab** repository and Runner for build automation
* Worked with RedHat OpenShift Container Platform for Docker and Kubernetes, used Kubernetes to manage containerized applications using its nodes, Config Maps, node-selector, Services and deployed application containers as Pods.
* Installation, configuration and administration of VMware and automation of jobs through crontab and AutoSys.
* Created **Golang** code base for **Kubernetes deployment** by using the source control of the deployment and **HPS YAML** files.
* The deployment model uses Atlassian development repository tools, Jenkins as the build engine, while execution deployments to container orchestration tools ranged over time from OpenShift on EC2, AWS
* Created health checks on **Route53** and configured different routing policies like Simple, Weighted, and Fail-over.
* Created **Cron-Jobs,** **Argo workflows** to run security scans, compliance scans and trigger builds for applications run in a cluster.
* Developed DevOps Scripts in **Groovy** to automate and collection analysis of **Cassandra.**
* Written some **Groovy scripts** for setting up LDAP configuration for Jenkins using security matrix.
* Set up and maintained Logging and Monitoring subsystems using tools Loke; Elasticsearch, Fluent, Kibana, Prometheus, Grafana and Alert manager.
* Experienced in creating various dashboards, metrics, alarms and notifications for servers using AWS Cloud Watch, Grafana, Prometheus and Nagios.
* Experienced in UNIX shell/Bash scripting, Autosys scheduling experience & batch processing in teh production environment.
* Wrote **Ansible Playbooks** for various applications and deploying them in **AWS** using **Terraform**.
* Development of automation of Kubernetes clusters with **Ansible**, writing playbooks.
* Responsible for watching alerts from Prometheus about **kubernetes** nodes, disk usage, memory, app restarts and different alerts and responsible for troubleshooting them.
* Developed and deployed Helm charts to Kubernetes using Helm file as a declarative configuration for deploying distributions of Helm charts while adhering to 12-factor application principles.
* Good experience in writing Helm charts, Kubernetes yaml files for deployment of microservices into kubernetes cluster.
* Configuring **JUnit** coverage report and Integration Test cases as part of build in **GitLab Runner**.
* Developed build workflows using **Gradle, Gitlab-CI, Docker**.
* Working as an **AWS DevOps Engineer** for a team that involves three different development teams and multiple simultaneous software releases.
* Migrating and maintaining build and test environments into the Cloud Infrastructure.
* Configured **AWS Identity Access Management (IAM)** Group and users for improved login authentication.
* Configured an **AWS Virtual Private Cloud (VPC)** and Database Subnet Group for isolation of resources within the **Amazon RDS Aurora DB** cluster and created notifications and alarms for **EC2 instances** using Cloud Watch.
* Involved heavily in setting up the CI/CD pipeline using **Jenkins, Maven, Nexus, GitHub, Ansible** and **AWS**.
* Experience with **Docker** and Vagrant for different infrastructure setup and testing of code.
* Experience in Administering **GIT** in Distributed Environments.
* Experience with AWS services like **Amazon S3, RDS, EC2, Cloud Formation, Lambda, VPC, ELB, Glacier,** **Elastic Block Store, Dynamo DB, Amazon RDS, Code Deploy, CloudWatch, Amazon IAM, SES, SQS, Security** **Groups** and **Route 53** in Agile environment
* Implemented SonarQube for developer code quality checks – established quality gates, designed gates thresholds by muting/unmuting rules through TeamCity
* Configured groovy script, shared **Jenkins** libraries and multi-branch pipeline to handle automated deployment for Dev, QA, UAT and PROD environment
* Used **elastic search** through **JSON** and **Java API.**
* Implemented Terraform modules for deployment of applications across multiple cloud providers. Employed **Git/GitHub, Ansible, Jenkins** and **VMW** are software to build the automated testing and delivery pipelines.
* Automated various infrastructure activities like Continuous Deployment, Application Server setup, Stack monitoring using **Ansible playbooks** and has Integrated Ansible with **Jenkins**.
* Involved in setting up builds using **Ansible** as a configuration management tool and managed the configurations of more than 40 servers.
* Design and build custom VPC setups, maintain and architect **Cloud Formations** for rapid deployment, setup High Availability Cloud architectures in **AWS**. Architect and setup **AWS Customer Gateway** via VPN.
* Maintain the best in class **AWS Cost Optimization, AWS Cloud Security, Operational Excellence, Performance,** and Reliability for **AWS Cloud architecture** and deployments.
* Involved with **Docker** and **Kubernetes** on multiple cloud providers, from helping developers build and containerize their application (CI/CD) to deploying either on public or private cloud.
* Customize existing playbooks downloaded from the puppet supermarket using **Python** DSL and Handlers
* Extensively integrated **Git** for automating builds with Jenkins.
* Working on creating a Continuous Delivery CI pipeline with **AWS Code Pipeline** to automate builds with **AWS Code Build.**
* Collaborated with development & support teams to service a continuous delivery environment with the use of build platform tool **DOCKER**
* Worked with **Ansible playbooks** for orchestration, provisioning, configuration management and application development on LAMP stack.
* Building/Maintaining **Docker** container clusters managed by **Kubernetes**, **Linux, Bash, GIT, Docker.**
* Utilized Docker for the runtime environment of the CI/CD system to build, test deploy.
* Configure, monitor and automate **Amazon Web Services** as well as involved in deploying the content cloud platform on **Amazon Web Services** using **EC2, S3** and **EBS**.
* Working experience of deployment of **Java applications** through **WebLogic/WebSphere Application** servers and build tools like **Gradle**.
* Designed **Auto-scaling** Launch configurations templates using various modules like Key-pairs, Security groups and block device mapping to configure an **EC2 instances** within the **Auto-scaling** group.
* Deployed **Kubernetes** clusters on top of **Amazon EC2 Instances** using KOPS and Managed local deployments in **Kubernetes**, creating local cluster and deploying application containers and building/maintaining **Docker container** clusters managed by **Kubernetes** and deployed Kubernetes using HELM Charts.
* Setup development and production data pipelines for ML team on Mesos managed **EC2 cluster** with Marathon Docker Management and data stored in **AWS S3**, transformed with **Python** ETL scripts.
* Written Ansible playbooks to manage configurations and automate installation process. Experience with Ansible Tower to manage Multiple Nodes and Manage inventory for different Environments.
* Expertise in using build tools like **MAVEN** and ANT for the building of deployable Artifacts such as War&Ear from Source Code.

**Environment:** AWS- EC2, S3, VPC, Cloud Watch, Gitlab, Autosys, IAM, SQS, SNS, SES, NACL, Route 53, Jenkins, Docker, Kubernetes, Ansible, Maven, Java, LAMP, Groovy, Helm, Splunk, Terraform, Grafana, SOAP UI Tool, jQuery, Bootstrap, PCF, GIT, LINQ, JSON, UDeploy, Windows, Apache servers, Linux servers.

**Fiat Chrysler automobiles, Auburn hills, MI January 2018 –May2020**

***Azure Devops Engineer***

**Responsibilities:**

* Developed and supported the Software Release Management and procedures. Also experienced with working on Subversion, Proposed and implemented branching strategy.
* Collaborates and pairs with other product team members (UX, engineering, and product management) to create secure, reliable, scalable software solutions
* Used Docker for setting **Azure Container Registry**with **Docker**and Docker-compose and actively involved in deployments on Docker using **Kubernetes.**
* Permformed chaos testing using the Gremlin tool to test the engineer, stability of the Kubernetes platform.
* Used **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 and Terraform.
* Monitoring and deployment by using technologies like **CHEF &Ansible**
* Developed automation scripting **in Python**(core) using Puppet to deploy and manage Java applications across Linux servers.
* Established infrastructure and service monitoring using Prometheus and Grafana
* Implemented Performance testing using Apache JMeter and created a Dashboard using Grafana to view the Results.
* Created alerts and monitoring dashboards using Prometheus and Grafana for all microservices deployed.
* Automated most of the daily task using **python** scripting
* Configured servers to host **Team Foundation Server (TFS)**instance to setup and manage Continuous Integration **(CI)**using Team Foundation (TF) Build Service.
* Responsible for Administering and Monitoring **Visual Studio Team System (VSTS),**taking backups and consolidating collections at the time of migration from one version of **VSTS**to another.
* Implemented **Jenkins pipelines** into **Azure pipelines** to drive all micro services builds out to the Docker registry and then deployed to **Kubernetes,** Created Pods and managed using AKS.
* Installed **Docker Registry** for local upload and download of **Docker images** and even from **Docker hub.**
* Experience in utilizing **CICD tools (GitOps)** and methodologies to rapidly deliver apps and provision cloud infrastructure.
* Worked on the **Docker ecosystem** with a bunch of open source tool like **Docker machine, Docker** **Compose, Docker Swarm.**
* Used Zabbix as monitoring tool and used Zabbix plugin for Grafana for analysis & visualization.
* Worked with Ansible to manage **Web Applications, Config Files, Data Base, Commands, Users Mount Points, and Packages. Ansible** to assist in building automation policies.
* Configured and implemented storage blobs and Azure files - Created Storage accounts, Configured the Content **Delivery Network**(CDN), custom domain, Managing access and storage access key.
* Experience in **Windows Azure Services** like **PaaS, IaaS**and worked on storages like Blob (Page and Block), Sql Azure. Well experienced in deployment & configuration management and Virtualization.
* Writes custom code or scripts to do "destructive testing" to ensure adequate resiliency in production
* Designed and Developed **Bamboo Builds** deployments on **Docker containers.**
* Defined dependencies and plugins in **Maven**pom.xml for various activities and integrated **Maven** with **GIT** to manage and deploy project related tags.
* Working on **Splunk tool** for monitoring all the **Kubernetes** clusters for efficient cluster visibility, proactive monitoring and triggering action.
* Created **Ansible** playbooks to automatically install packages from a repository, to change the configuration of remotely configured machines and to deploy new builds.
* Automated various infrastructure activities like Continuous Deployment using Ansible playbooks and has Integrated Ansible with Jenkins on **AZURE.**
* Configures commercial off the shelf solutions to align with evolving business needs
* Designing and implementing fully automated Server build management,
* Developed **Python** **scripts** for testing the car functioning on different services.
* Created users, manage user permissions, maintain User & File System quota on **Red Hat LINUX.**
* Used Apache **Kafka** for importing real time network log data into **HDFS**
* Expertise **in JIRA**for issue tracking and project management. Experienced with Installing and Configuring the **NEXUS**Repository manager for sharing the artifacts within the company. Also, Supported and developed tools for integration, automated testing and release management.
* Improved the performance of **SQL**Scripts by using Object Role Modelling methodology.
* Used Docker in build automation pipeline and production deployment & implemented the setup for Master slave architecture to improve the Performance of Jenkins. Used Jenkins for Continuous Integration and deployment into **tomcat**Application Server.
* Profound Experience in designing Strategies to increase the velocity of development and release for Continuous integration, delivery and deployment, by using technologies like Bamboo and Jenkins. Also, experience in using SCM tools like **GIT,** Subversion (SVN) and **TFS** on Linux platforms in maintaining, tagging and branching the versions on multiple environments
* Worked with **Configuration Management automation** tool **Ansible** and has worked on integrating **Ansible YAML Scripts.**
* Involved in Research of the project application architecture to support/resolve build, compile, and test issues/problems.

**Environment:** ANT, MAVEN, Subversion (SVN), CHEF, Docker, Vagrant, Ansible, JIRA, LINUX, RHEL, SNS, SQS, Kubernetes, Shell/Perl Scripts, Bitbucket, Python, Grafana, Terraform, TFS, SCM, API, GIT, Jenkins, TomCat, Java, ARM, Azure TFS, Azure VSTS, Visual Studio, Visual Studio Code, GitBash, Python

***Broadridge financial solutions, Hyderabad, India Aug 2015 – Dec2017***

***DevOps/Build & Release Engineer***

**Responsibilities:**

* Created and maintained several build definitions and publish profiles to handle automated builds in an Agile / SCRUM environment.
* Implement, manage and orchestrate **Docker** Container Clusters using Kubernetes. Worked on cluster creation for minion/worker in **Kubernetes**.
* Configured and administered Monitoring tool **Nagios**, worked on User administration setup, maintaining account, monitor system performance.
* Developed Cron jobs and **Shell Scripts** for automating administration tasks like file system management, process management, backup and restore.
* Responsible for migrating from Bamboo to **Jenkins** as continues integration tool.
* Administer and Maintain Source Code Repositories including **GIT, Subversion.**
* Created and modified build configuration files including **POM.xml.**
* Experienced in authoring pom.xml files, performing releases with the Maven release plugin, and managing artefacts in **NEXUS** repository.
* Installed and monitored code quality tools like **SonarQube** to check the standards of the code and to analyses the source code.
* Configured **AWS Identity and Access Management (IAM)** users and groups for improved login authentication.
* Deployed **Kubernetes** clusters and managed, scheduled container tasks on **AWS infrastructure.**
* Worked on Nginx, configured reverse proxy for Apache also fine-tuned configurations with rigorous performance testing.
* Created a **Python Script** to stop all the instances with a specific tag in **AWS Instance** using **Lambda** functions and made it into Cloud Watch Scheduler to schedule it every night.
* Installed, configured and administered application servers like Tomcat to deploy many java applications.
* Configured **Jenkins** daily periodic backups for **Jenkins** config and plugins files.
* Integrated **Jenkins** Build pipeline plugin for managing multi project jobs efficiently.
* Deployed the **Java** applications into web application servers like **Apache Tomcat.**
* Used **Artifactory** as a repository management tool to store the .war or jar artifacts in a versioning manner that are generated in the build process.
* Deployed continues delivery pipeline by using **Jenkins, Artifactory, SonarQube, Tomcat, AWS**
* Managed TCP/IP packets & DHCP servers, resolved TCP/IP network access problems for the clients and worked with various TCP/IP implementations like NFSv4, NIS, DNS and DHCP.
* Used **GitHub** as source code management tool.
* Daily tasks include monitoring **Bugzilla** to find and rectify the issues

**Environment:** RHEL, Maven, Docker, Kubernetes, Puppet, GitHub, AWS, SonarQube, Ant, Apache, MYSQL, RDS, Jenkins, Subversion, GIT, Artifactory, Nginx, Tomcat, Bugzilla, Shell scripts, Python, VMware Splunk.