**Abhinav M**

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**Professional Summary**

* **AWS Certified Solution Architect Associate, AWS Certified Developer Associate and Google Associate Cloud Engineer** over **7** years of experience as **DevOps Automation Engineer**, **Application Developer** focusing mainly upon **Automation**, **Build and Deployment**, **Infrastructure as a Code (IaaC)**, **Continuous Integration and Continuous Delivery Pipeline**.
* Experienced with **AWS** cloud migration strategies(6R’s) including Services like **EC2, S3, Lambda, ECS, EKS, VPC, CloudFront, SNS, SQS, ELB, EBS, VPC, Route53, DynamoDB, RDS, APIGateway, Code Pipeline, Code Build, Code Deploy**.
* Knowledgeable in using **Azure PaaS** Solutions like **Azure Web Apps**, **Web Roles**, **Worker Roles**, **SQL Azure** and **Azure Storage** and in configuring and deploying the Operations Management Suite (OMS) to monitor and track changes.
* Involved in configuring **Virtual Machines, VNets, NSG, Storage Accounts** and **Resource Groups** within **Azure Cloud Platform.**
* Implemented Continuous Integration and Continuous Delivery pipeline using **Azure** **Devops** and **VSTS** in cloud with **Git**, **Maven, Docker** and Jenkins plugins to ensure smooth transition of build from development to deployment into production environment.
* Accomplished savings on infrastructure provisioning and management using **Terraform,** slashing cost estimates upto **8.31%** on a monthly basis reducing workload using Cron jobs processes improving server performance after 6 hours.
* Redefined existing branch strategies along with tagging, merging and maintaining versions of code in **Source Code Management (SCM)** tools like **Gitlab, VSTS, SVN,** and **bitbucket** to meet up Scaled Agile deployment.
* Designed and Created **Continuous Integration and Continuous Deployment** pipelines using **Jenkins Automation Server** with **Ant**, **Maven**, **Gradle** plugins and configured **Jenkins File** by **Groovy** Scripting language.
* Handled **Nexus** and **JFrog Artifactory Repositories** to store binaries, **JAR, WAR, EAR** files of successful builds across **Development, Staging** and **Test** Environments along with **DNS** configuration using **Route53** and **AWS Cloud migration**.
* Created **Ansible Playbooks** using **YAML** Scripts to configure remotely deployed instances with Apache web server dependencies at specified path of Linux Servers hosted in **AWS** cloud environment.
* Containerized security of FIM application framework using **Docker Images, Docker Hub, Docker Private Registry, Docker Swarm, Docker Service, Docker Compose** and **Docker file** and performing Docker Twist-lock scan to assess vulnerabilities.
* Managed Docker orchestration and containerization using **Kubernetes** along with container deployment, scaling, and security.
* Bootstrapped **Chef nodes**, created and uploaded **Chef Recipes** using **Ruby**, performed Static Code Analysis using **Food-critic** and **Robocop**, unit tests using **ChefSpec** and integration tests using **Test Kitchen** and **In-Spec**.
* Monitored Infrastructure both on-prem, cloud using **Nagios, CloudWatch, Stack driver** and **Elasticsearch Logstash Kibana (ELK)** Stack by deploying APM agents on remote Linux and Windows servers and gathering logs on a timely basis.
* Implemented multi-cloud Architect solutions for integration of **AWS** Services like **EC2, S3, Lambda, API Gateway** with **GCP** Services like **Bigtable, CloudSQL** using python scripting language.
* Deployed vendor cloud solutions based on **Compute Engine**, **App Engine** and **Google Kubernetes Engine** in **Google Cloud Platform**.
* Developed enterprise applications using **Java/J2EE, JDBC**, **Spring MVC**, **RESTful** Web services and implementation of web technologies like **XML, JSON,** and databases like **RDS, MySQL** and **DynamoDB**.
* Experienced with **IT Governance (COBIT, ITIL, CMMI, and FAIR)** and **Compliance like ISO 27001\27002**.

**Technical Skills:**

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| --- | --- |
| Programming and Scripting Languages | Java, SQL, Groovy, Python, Ruby, Bash, YAML, JSON, XML |
| Version Control Systems | Git, Gitlab, GitHub, Apache Subversion, Bitbucket |
| Continuous Integration/Continuous Delivery | AzureDevOps, Jenkins, Bamboo, TeamCity |
| Configuration Management | Ansible, Chef, Puppet, Terraform, Vagrant |
| Containerization | Docker, Docker Swarm, Kubernetes, GKE, ECS, EKS, AKS |
| Monitoring | Nagios, CloudWatch, ELK, Prometheus, Grafana, Splunk, New Relic |
| Web Servers | Apache, Tomcat, Nginx, LightSpeed, Lighttpd |
| Databases | Oracle, MySQL, DynamoDB, RDS, Bigtable, SQL, Postgres |
| Cloud Platforms | Amazon Web Services (AWS), Google Cloud Platform (GCP), Azure |

**Professional Experience**

**Client: Verizon, Temple Terrace, Tampa (June 2019-Present)**

**DevOps cloud Engineer**

* Created **AWS Cloud Infrastructure**, customer end **Virtual Private Cloud (VPC)** using **Terraform** **DSL,**  reducing cost estimates by **8.31%** versioning with **terraform** templates and enhanced provisioning of infrastructure using **terraform plan**.
* Hands-on with multiple **AWS** Services like **IAM**, **S3**, **VPC**, **EC2**, **Lambda**, **SNS**, **SQS**, **RDS**, **DynamoDB**, **Kinesis**, **Redshift**, **Config**, **KMS**, **ECS**, **EKS**, **ECR**, **EBS**, **KMS**, **CodeCommit**, **CodeBuild**, **CodeDeploy**, **CodePipeline**.
* Creating release strategy by release branch at beginning of sprint and later merging to master during release using **gitlab**.
* Created and Designed **CI/CD** using **Jenkins pipeline** for **Automation** of **cloud data-migration** of telecom markets using **Groovy** scripting language and extracted logs from **Jenkins Automation Server** to restrain performance bottlenecks.
* Built **Cron Scheduler** to remove processes older than 6hrs after running a **Jenkins job** and clean up Working directory to improve server performance. Created automated snapshots of **Linux** based **instances**.
* Developed provisioning of **IIM Web Servers** using **Azure Devops** pipeline and integrating them with Verizon Cloud Platform.
* worked as a part of **Kafka** **Admin** team to set up **Kafka cluster setup** on **QA** and **Production environments**.
* Implemented to reprocess the failure messages in **Kafka** using offset id, Also worked with **Kafka producer** and **consumer** applications on **Kafka cluster** setup with help of **Zookeeper**.
* Designed generation and process of messages from **microservices** to **kafka cluster** using **kafka API** calls.
* Managed code deployments in large scale production environments using **Jenkins, Groovy** as scripting language across **AWS Lambda, ElasticBeanStalk, Elastic Container Service** and **EC2** instances.
* Achieved lower remote configuration timeline by integrating **Jenkins** with **Ansible** using **Ansible plugin** and delivering artifacts, dependencies to **536** remote **AWS** staging Linux/windows servers by writing **playbooks** using **YAML** in **Ansible**.
* Provisioned non-prod and staging **EC2** instances to run **selenium** test cases within nodes created and configured encrypted **AMI** using **Ansible** configuration management tool and provisioned as Jenkins job.
* Configured **Selenium** grid hub node architecture established **Route53** record within **Amazon Web Services** non-prod and PLE environments and pointed to **AutoScaling EC2 instances** using simple routing policy.
* Rebuilt existing schema and tables with **RDS** in AWS staging-environment for **release management** of data migration domain and offloaded storage into new tables as staging.
* Designed **canary deployment** using **AWS Lambda** functions with a ratio of 90:10 traffic shifts for 2 versions of application.
* Devised integration of **AWS Elastic Load Balancer** and attached **EC2** instances to application **ELB** as rolling deployment. Raised cross-account access within **AWS** using **IAM** driving multi-account solutions for vendors to access sensitive data.
* Integrated **Elasticsearch, Kibana** with **CloudWatch** logs using **python** streaming to **Kibana** for data visualization and created **dashboards** and developed **python APIs** to automate processes.
* Integrated **JFrog** **Artifactory** with Jenkins to store builds, binaries, dependencies, and packages of successful jobs.
* Managed **Docker orchestration** and containerization using **Kubernetes** orchestrator including deployment, scaling and clustering application run-time environment and created **docker images** by writing **docker files** using **YAML**
* Customized **docker image scanning** and **twist-lock** policy to run vulnerabilities in **docker images**. Encrypting passwords using the **Kubernetes secret**. Creating and running twistlock scanner application dependencies using Self healing **Kubernetes** cluster.
* Created **Kubernetes** object definition files like **Deployment.yaml, development.YAML, svc.yaml, config.yaml** and **ingress.yaml** and configured **helm charts** to package and deploy application updates on Kubernetes cluster.
* Designed and versioned **AWS** Cloud Infrastructure using **CloudFormation templates** for **Disaster Recovery**, Template-based **Infrastructure as a Code (IaaC)** are stored into **VSTS** source code management repositories as versions.
* Involved in Designing and creation of clustered pre-warming environments in **Azure Cloud Platform** using **Terraform HCL**.
* Integrated slack with **Azure** **Event Hubs**, **Azure Functions** displaying messages from **Azure Disks** and **AzureSQLDatabase**.
* Performed **Blue-green deployments** into **Azure Cloud Platform** while migrating data from on-premise **kubernetes cluster** to **Azure Kubernetes Engine**.
* Patching operating system images, **Security Groups**, **NACLs** between On-prem and **AWS** Staging environment to run **ArcGIS** map service application using **AWS Systems Manager** and **Ansible** Configuration Management tool.
* Setting up **Selenium Grid hub** and attaching nodes to the **Selenium** hub and executing test scripts and generating **extent reports** within **CI/CD** pipelines.
* Implemented and maintained **monitoring**, **alerting** of production and corporate servers using **ELK (Elastic Search, Log stash, Kibana)** for application logs.
* Implemented automated tickets in **JIRA** after unsuccessful builds in Jenkins automation pipeline using **python wrappers**.

**Client: Quantiphi Inc, Marlborough, MA (Nov 2018-May 2019)**

**DevOps/Platform Engineer**

* Involved in designing and creation of clustered staging environments in **Google Cloud Platform** using **Terraform DSL**.
* Integrated slack with **GCP Pub-Sub, Cloud Function** displaying messages from **GCP Disks** and **CloudSQL**.
* Created integration of source code management **bitbucket** with **bamboo** using **bamboo spec** and automated deployment process.
* Built database Model, **APIs** and Views utilizing **Python** in order to build an interactive web-based solution. Wrote python modules to extract/load asset data from **CloudSQL** database.
* Analyzed data in **Spark, Kafka** framework on both real-time and batch processing along with **Hadoop** integration for data ingestion, data mapping and data processing capabilities.
* Designed a Continuous **delivery** pipeline with **Ansible** module and deployed to lower UAT environment using **Ansible tower**.
* Created automated installation of software applications using **Ansible playbooks**. Created **Ansible roles** and deployed **Ansible playbooks** to streamline the automated delivery.
* Created production pipeline **Jenkinsfile** comprising Deploy to Staging, Staging accepting tests, Promote to Production, Noop production and Deploy to production stages using **groovy** scripting language and using plugins like **docker pipeline** plugin and **NexusArtifactUploader** plugins.
* Deployed Multi-Threaded, low latency, high throughput applications across highly distributed cloud infrastructure using **Docker swarm** engine for container orchestration.
* Managed and integrated code quality tools like **SonarQube, manage sonar rules, Quality gates**.
* Deployed container-based builds using **Docker**, working with **Docker images, Docker Hub**, **Docker-registries** and **Kubernetes**.
* Achieved Continuous Delivery goal on high scalable environment, used **Docker** coupled with load-balancing tool **Nginx**..
* Integrated **Maven** with **Shell** and made automated deployments of **Java**-based Enterprise application test suite to staging servers using **Jenkins** Jobs and deploying **JAR** files of successful builds into **Nexus** repository.
* Merged **Bugzilla** bug tracking tool for interaction with testing team updates and integrated within **dev** environment.
* Built **Monitoring** solutions for infrastructure based on **Splunk**, **Nagios** and **New relic** tools for various projects.
* Performed **Blue-green** deployments into **Google Cloud Platform** while migrating data from on-premise **Kubernetes cluster** to **Google Kubernetes Engine**.
* Deployed custom-made applications in Non-Prod, staging environments to **JBoss, Apache, Tomcat** and **Nginx web servers** and automating processes with **Bamboo**.
* Set up **web services** for schedule installation and validating config services that obtain coordinates for given input address.
* Migrated existing legacy oracle based **OLTP** system onto **Google Cloud Platform** solutions like **Cloud Spanner**.

**Client: West Corporation, Omaha, NE (Jan 2018- Oct 2018)**

**Site Reliability Engineer**

* Created **VPC’**s, **subnets** and **security groups** for provision of customized AMI Launch configurations.
* Provisioned and maintained multiple **EC2** nodes with various services installed on it as per requirement of cloud infrastructure in AWS.
* Used **JIRA** for creating bug tickets, storyboard, pulling reports from dashboard, planning sprints and used **Git** as version control tool and maintained Source code in **GitHub** repository.
* Integrated Jenkins with **Ant and Maven** for builds and wrote scripts using Shell and Python for automation of various tasks for **Continuous Integration/Continuous Deployment** process.
* Constructed build tool jobs to store binaries of builds in **Nexus** repository which are further used in Integration testing.
* Configured **Elastic Beanstalk** by setting up different layers for deploying and scaling web applications in pre-production and staging Environments.
* Bootstrapped **Chef nodes**, created and uploaded **Chef Recipes** using **Ruby**, performed Static Code Analysis using **Food-critic** and **Rubocop**, unit tests using **ChefSpec** and integration tests using **Test Kitchen** and **In-Spec**.
* Created roles and environments for **continuous deployment** within a group of chef nodes using **runlists**.
* Created and stored DB snapshots in Amazon **Simple Storage Service (S3)** for backup and restore. Configured **DynamoDB** tables for application support, configured Lifecycle policies and versioning in **S3 bucket** for the storage of data.
* Registered and maintained domain names for applications using the **Route53** service by creating **hosted zones** and **record sets** along with **Application Elastic Load Balancer (ELB)** to direct application traffic to specific endpoints based on type of microservices.
* Implemented and maintained monitoring, alerting of production and corporate servers using **ELK (Elastic Search, Log stash, Kibana)** for application logs.
* Developed and maintained fully automated account de-provisioning solution using **Windows PowerShell**, simplifying employee off-boarding process and minimizing risk associated with orphaned user accounts.
* Implemented **Windows PowerShell** scripts to monitor event logs of critical windows servers in real-time and filter for specific errors, allowing me to view errors from entire windows infrastructure.
* Worked with Development Team Leads and testing teams to establish build schedule, execute builds and troubleshoot build failures, if any.

**Client: PAR Tech Corporation, Hamilton, NY (Jan 2017 - Dec 2017)**

**DevOps Engineer**

* Redefined processes and worked upon software builds, patch creation, source control, release tracking and reporting saving **7%** pipeline runtime.
* Constructed **Docker files** to create container images, tagging and pushing images into repositories and worked on image management.
* Virtualized and configured servers for testing and dev-environments using **Docker** containers.
* Developed procedures to unify, streamline, automate application development and deployment procedures with Linux container technology using **Docker**.
* Deployed Multi-Threaded, low latency, high throughput applications across highly distributed cloud infrastructure using **Docker swarm** engine for container orchestration.
* Implemented Continuous deployment process using Puppet, Docker images and hosted application in **AWS** cloud environment.
* Achieved Continuous Delivery goal on high scalable environment, used Docker coupled with load-balancing tool **Nginx**.
* Operated **Nagios** monitoring tool to identify and resolve infrastructure problems before affecting critical processes.
* Designed and implemented **CI** (Continuous Integration), configuring **Bamboo** servers creating required scripts in **Python**.
* Integrated Bamboo and **Nexus** to save and track artifacts from development to production.
* Restructured **SVN** version control system and maintained Source code with multiple branches in the development environment.
* Performed and deployed Builds for various Environments like **QA**, **Integration** and **UAT** Environments.
* Developed applications using Java-script as front-end and node.js as backend.

**Client: Mohawk Valley Health Systems, Utica, NY (Aug 2015 – Dec 2016)**

**Graduate Assistant, IT Specialist**

* Spin up **ELK** stack clusters and integrated Enterprise logging.
* Performed data management using native Solaris utilities for archiving and compression.
* Strong knowledge of Software Development Life Cycle methodologies such as **Agile** and **Waterfall** models.
* Worked with other IT groups, and other managers in helping build and implement systems and standards.
* Troubleshooting and resolving OS, application, malware desktop related issues on various **Windows OS**.
* Provided systems administration support for **LINUX** systems including server and **workstation upgrades, backup and disaster recovery monitoring, user account setup and security administration**.
* Assist with maintaining current build systems, developed build scripts and source control systems.
* Developed **Shell, Bash** and **Perl** Scripts for automation purposes.

**Client: Trigeo Technology Solutions, Hyderabad, India (July 2013 - July 2015)**

**Build and Release Engineer**

* Developed and deployed applications into multiple servers using **Jenkins Automation Server** and provisioned **Continuous Integration and Continuous Delivery** life-cycle**.**
* Created build scripts using **ANT** tool for creation of (**WAR** files) build artifacts on **CentOS, RHEL** and **Ubuntu** servers.
* Responsible for assigning **Hostname, static IP address, Default Gateway address, DNS address** to **Centos, Rhel** and **Windows 2008 Servers** to introduce them to the network.
* Extensively used **SVN** version control system to coordinate with team and collaborated technical use cases with business logic resolving 4% slowness in business domain repositories and performed **Unit Testing (JUnit)**.
* Improved **Quality Assurance** making direct impact on cost-benefit analysis, involved in **User Acceptance Testing** and **Bug Fixing**.

**Client: Suven Pharmaceutical Industries, Hyderabad, India (June 2012 – July 2013)**

**Junior Software Developer**

* Involved in analysis, design, and development and testing phases of **Software Development Life Cycle** (SDLC).
* Designed and implemented **J2EE** with **MySQL** in **Eclipse** IDE.
* Implemented web-based application following **Spring MVC** architecture using **Spring** Framework.
* Provided framework for mapping object-oriented domain model to traditional relational database using **JDBC template** framework.
* Built **SVN** based software configuration management system for version control.

**Education: Master of Science in Networking and System Administration State University of New York Polytechnic Institute Utica, NY 2017**

**B-Tech Jawaharlal Nehru Technological University Hyderabad (E.C.E) 2013**