**Bharath Yelika**

**Dev-OPS Engineer**

+44 7700159952 | bharathyelika@gmail.com

Professional Summary

* 6 + years’ experience working in Cloud DevOps (primarily AWS and Azure), Site Reliability Engineering, Platform Engineering and Security/Penetration Testing
* 7 + years of professional experience including working with cloud services, database management, creating models through data science Python libraries (numpys, pandas, TensorFlow), Infrastructure as Code (Terraform, Ansible, some CloudFormation), as well as setting up automated monitoring and logging solutions.
* Versatile DevOps Engineer experienced in platform engineering on AWS, managing infrastructure as code using Hashicorp Terraform, configuration management of servers using Ansible, working with containerized applications using tools like Docker, Nexus and utilizing orchestration tools like Kubernetes (EKS and kops)
* Built out pipelines and managed jobs for various teams using Jenkins scripted pipelines, Job DSL plugin for managing jobs across multiple product teams, JCasC plugin for managing all Jenkins server configurations in a coded format checked into version control.
* Worked closely with Senior Cloud Architects to design cloud-based modernization strategies and promote a cloud native approach.
* Consistently follow GitOps approach to projects to ensure all infrastructure, policies, security configurations, and access control is strictly done through code rather than via manual changes.
* Managed multiple AWS accounts using AWS Organizations, Guardrails, SCPs (Service Control Policies). Managed AWS user accounts with AWS Control Tower to create account factories via Terraform modules.
* Performed SRE roles involving monitoring and logging using tools like Datadog, Splunk, Prometheus, CloudTrail, CloudWatch agents, Grafana.
* Created Python scripts utilizing boto3 library and AWS Lambda and AWS Event Bridge to automate AWS services, (e.g., web servers, ELB, CloudFront distribution, databases, EC2, database security groups, S3 bucket and application configuration).
* Deployed web applications on AWS S3 served through CloudFront and Route 53 using AWS CloudFormation
* Collaborate with other DevOps engineers to maintain deployment and management strategies.
* Established and ran processes for on-going maintenance, monitoring, support, and security patching of applications in our production environment.

**Technology Skills Table**

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| * Cloud Services - AWS * Infrastructure as Code (IaC) - Terraform, CloudFormation * Server Configuration Management - primarily Ansible, Chef. * Container Technology - Docker, Kubernetes (EKS and kops), helm charts, service mesh (Istio), Nexus, Hashicorp Packer for image scanning, AWS ECR * QA and Monitoring - CloudWatch dashboards, CloudTrail, Splunk, DataDog, Prometheus, Grafana, ELK stack | * Programming Languages - Python, Java, Bash, PowerShell, PL/SQL, JavaScript, YAML. * Scripting Languages - Python scripting, Bash * Databases - SQL Server, Oracle, MySQL, PostgresDB, AWS RDS, DynanmoDB * Technologies - API Gateway, Apache, Tomcat, Nginx, HTML5/CSS, Servlets, JSP, XML, JSON, CSV, JSTL, Soap, Web Services, WSDL * Operating Systems - Windows, Linux, Unix, Microsoft Windows Server, VMware |

**Professional Work History**

**Site Reliability Engineer**

**Broadridge Financial Solutions** – London, UK 04/2021 - Current

* Used Prometheus and Grafana for monitoring, ELK stack for logging, Istio service mesh for custom features, implemented Thanos on top of Prometheus for High Availability monitoring setup.
* Wrote scripts in AWS Lambda using boto3 library to automate scaling ECS clusters up and down, linked up to Event Bridge cron triggers. I configured this setup in such a manner that the same function could receive various inputs throughout the day both from EventBridge and from Java events, which would trigger various sections of the code to do things such as scale up autoscaling groups, restarting ECS services, verifying services are up and running smoothly during business hours.
* Wrote python scripts to restart database services running on EC2 instances.
* Configured all the Splunk alerts for our DEV, UAT, and PROD environments.
* Connected Splunk alerts to PagerDuty based off MIR3 schedule, configured the schedule to alternate every 12 hours to ping either the India team lead or the US team lead based on crons.
* Led daily Scrum calls with the infrastructure team, created stories and assigned tickets to other DevOps engineers, helped onboard and tutor new junior DevOps engineers, created most of the documentation to help ramp up new hires to Broadridge’s way of doing things with various tools.
* Configured all the DataDog synthetic monitors to perform regular health checks against our service API endpoints.
* Configured all the automated DataDog alerts for our environment. This was done through the use of Terraform modules. To view the alerts on our panels, I would match the query against the tags generated on the resources on AWS, which we define in our .tfvars file.
* Setup and used a third-party enterprise APM monitoring tool called Broadcom APM for all SDLCs for our client. Setup and managed the alerts with this tool to notify us for issues such as too much time spent in garbage collection, our ECS CPU utilization being too high, our Kafka message queues being backlogged, and dozens more. Configured the system to alert various parties such as the 24/7 production environment support team, or the normal dev team depending on the SLDC and the severity of the alert.
* Utilized Helm charts from both public and private repositories to configure and launch applications within Kubernetes cluster.
* Deployed AWS infrastructure using IAC. AWS services like VPC, EC2, S3, EBS, IAM, ELB, Autoscaling using Terraform.
* Managed AWS S3 buckets and object policies using IAM and S3 bucket policies and created MFA for accidental deletion.
* Setup and configured Multi-Region Access Points with 2-way replication for S3 buckets.
* Utilized IAM service to create new users, groups, roles, and policies.
* Extensive experience in configuring EC2, S3, Elastic Load Balancer, Autoscaling, IAM, and Security Groups in public and private subnets in VPC and other services in AWS.
* Implemented cluster services using Docker and Kubernetes to manage remote deployments in Kubernetes by building a self-hosted Kubernetes cluster using Istio and Helm, deployed on kops on EC2 instances.
* Monitored automated build and continuous software integration process with CloudWatch, Prometheus and DataDog to drive build/release failure resolution.
* Prepared development server on EC2 for developers, enabled with Docker, Java 11, Git.
* Experience in configuring, managing, and building platforms with Ansible.
* Prepared Shell scripts to package the application with Maven.
* Researched and identified new technologies and tools helping to grow the agile development environment.
* Worked with Docker, pulling images, running containers, creating Dockerfile, exposing a container with a port redirect, volume management, docker inspect, docker, commit to capturing the file changes/settings into a new image, and pushing the image to DockerHub.
* Hands-on experience with Jenkins - CI/CD concepts, jobs, builds, pipelines, triggering, plugins, etc.
* Designed highly available, cost-effective, and fault-tolerant systems using multiple EC2 instances, Auto-Scaling, and Elastic Load Balancer.
* Created tagging standards for proper identification and ownership of EC2 instances and other AWS resources.
* Implemented a serverless architecture using API Gateways, Lambda and DynamoDB and deployed AWS Lambda Code from AWS S3 buckets.
* Created and managed a Docker deployment pipeline for custom application images in the cloud using Jenkins.
* Designed and maintained Puppet manifests to ensure consistent and reliable deployment of applications and services.
* Developed Puppet modules that streamlined the process of adding new nodes to the environment, contributing to seamless scalability.
* Hands-on experience in writing SQL using MySQL.
* Configured Java applications to produce logs, package them into Docker images, and push them into a Nexus private repository.
* Wrote scripts to process JSON responses in python.

**DevSecOps Engineer**

**Sentinel One –** Bangalore, India 10/2018 to 04/2021

* Designed and deployed a large application utilizing AWS stack (including EC2, VPC, Route53, S3, RDS, DynamoDB, SNS, SQS, IAM) focusing on high availability, fault tolerance, and auto-scaling in Terraform.
* Utilized Istio service mesh to take advantage of key features for the deployments of our application such as traffic splitting, mutual TLS, canary deployments.
* Implemented a multi-region disaster recovery active-active failover model using AWS Route53 coupled with our application running in Kubernetes.
* Worked extensively with AWS services like EC2, S3, VPC, ELB, Auto Scaling Groups, Route 53, IAM, Organizations, Control Tower, and RDS
* Created a Jenkins pipelines and configured cron job to trigger the pipeline on certain times depending on the pipeline’s branch.
* Used Ansible as a configuration management and deployment tool.
* Created and configured elastic load balancers and auto scaling groups to distribute the traffic and to have a cost efficient, fault tolerant and highly available environment.
* Worked with the IAM service to create roles, users and groups and attached policies to provide minimum access to the resources.
* Created freestyle projects and fully automated CI/CD build pipelines and processes for multiple projects.
* Worked extensively with AWS services like EC2, S3, VPC, ELB, Auto Scaling Groups, Route 53, IAM, CloudFormation, CloudFront, and RDS
* Designed and configured VPC-Internet Gateways, NAT Gateways, Public and Private subnets, Security groups, NACLs, Route Tables, VPC peering.
* Deployed web applications on AWS S3, served through CloudFront, Route 53 and Edge Locations
* Used Gitflow as workflow strategy and orchestrated test, build, release and deploy phases through multiple pipelines, leveraged scripting knowledge in automating the tasks.
* Wrote shell scripts for automating the process of data loading.
* Evaluate Ansible framework and tools to automate the Cloud deployment and operations.
* Implemented a production ready, load balanced, highly available, fault tolerant CI/CD pipeline with GIT, Jenkins, Ansible, Docker and Kubernetes.
* Supporting software development and data management projects that prepare large datasets for using Docker in Environment variables, Configuration files, Option types and Strings & integers.
* Wrote custom monitoring and integrated monitoring methods into deployment processes to develop self-healing solutions.
* Actively involved in a program geared towards migrating existing mission and business applications into a cloud-based environment. Activities required to re-host an application into the cloud may include architecture modifications, database and/or application server re-hosting, and potentially re-engineering of existing capabilities to take advantage of cloud platform services.
* Worked with the architectural lead for the migration of several applications to the cloud.
* Proactively develop best practice standards, architectures, and procedures to support the utilization of cloud infrastructure services.
* Completed load and performance testing of extremely complex systems.
* Optimize several applications for maximum speed and scalability, system, DNS, and network connectivity.

**Junior Cloud Engineer**  08/2017 to 10/2018

**YRC Freight** – Bangalore, India

* Designed and deployed a large application utilizing AWS stack (including EC2, VPC, Route53, S3, RDS, DynamoDB, SNS, SQS, IAM) focusing on high availability, fault tolerance, and auto-scaling in AWS Cloud Formation
* Dockerized applications by creating Docker images from Dockerfile.
* Utilized Kubernetes and containerD for the runtime environment of the CI/CD system to build, test and deploy.
* Used Helm 2.0 with Tiller to simplify deployments in Kubernetes and used Helm map repo for application testing.
* Created a Jenkins pipelines and configured cron job to trigger the pipeline on certain times depending on the pipeline’s branch.
* Used Ansible as a configuration management and deployment tool.
* Created and configured elastic load balancers and auto scaling groups to distribute the traffic and to have a cost efficient, fault tolerant and highly available environment.
* Worked with the IAM service to create roles, users and groups and attached policies to provide minimum access to the resources.
* Created freestyle projects and fully automated CI/CD build pipelines and processes for multiple projects.
* Worked on all major components of Docker like Docker Compose, Volume, Network, Hub, Images
* Worked extensively with AWS services like EC2, S3, VPC, ELB, Auto Scaling Groups, Route 53, IAM, CloudFormation, CloudFront, and RDS
* Designed and configured VPC-Internet Gateways, NAT Gateways, Public and Private subnets, Security groups, NACLs, Route Tables, VPC peering.
* Deployed web applications on AWS S3, served through CloudFront and Route 53 using AWS CloudFormation, and AWS Certificate Manager
* Used Gitflow as workflow strategy and orchestrated test, build, release and deploy phases through multiple pipelines, leveraged scripting knowledge in automating the tasks.

**Database Engineer**  06/2016 to 08/2017

**Delta Airlines** – Bangalore, India

* Designed and implemented a database schema for storing customer booking records, including tables for customer information, purchase history, and credits.
* Optimized the performance of the tickets purchased database by identifying slow queries, optimizing indexes, and caching frequently accessed data.
* Set up regular backups of databases to ensure data could be restored in case of a disaster or data loss.
* Ensured that customer personal information records were stored securely by implementing role-based access controls, monitoring database access logs, and conducting regular security audits.
* Worked with Python developers to create a data access layer that allowed the application to access patient medical records stored in the database.
* Wrote code for a Python web application that allows users to book tickets with Delta and automated scripts that scrape data from a database live and import it into the application.
* Conducted code reviews for code written by other developers to identify bugs, ensure adherence to coding standards, and suggest improvements.
* Identified a bug that caused appointment booking to fail under certain conditions, debugged the code to isolate the problem, and fixed the issue.
* Worked with data architects and software developers to ensure database schemas and queries are optimized for performance and scalability.
* Set up and configured database backups, replication, and high availability options to ensure data availability and disaster recovery.
* Monitored database performance and health using monitoring tools such as AWS CloudWatch or Google Cloud Monitoring and took action to troubleshoot issues as they arose.
* Developed scripts in Python and Bash to streamline database administration tasks and reduce manual effort.
* Ensured database security and compliance by implementing best practices and following industry standards and regulations such as GDPR, HIPAA, or PCI-DSS.

**Education**

**Bachelor’s in mechanical engineering** – Sri Venkateshwara College of Engineering - Bangalore, India

**Master’s in data science** – University of Greenwich - London, UK