**Srikanth Bakki**

**Email:** srikanthb7961@gmail.com

**Sr. GCP/DevOps Engineer**

**PROFESSIONAL SUMMARY**

* Seasoned GCP/AWS DevOps Engineer with over 9+ years of experience in designing, implementing, and maintaining cloud-based infrastructure solutions. Expertise in Google Cloud Platform (GCP), Amazon Web Services (AWS), Kubernetes, CI/CD pipelines, and automation tools. Proven track record of optimizing system performance, enhancing security, and reducing operational costs through effective DevOps practices.
* Collaborate with development support teams to setup a continuous delivery environment with the use of build platform tool Docker and virtualize the servers on GCP using the Docker; create the Docker files and version control.
* Experience in setting up Kubernetes (k8s) Clusters in GCP for running microservices and pushed microservices until production environments.
* Extensive knowledge and working experience in Kubernetes, Helm, Docker, Jenkins and creating clusters and managing clusters in multi cloud environments.
* Experience in technologies and platforms including .net, JAVA, Node.js, Jenkins, Subversion, Git, Unix/Linux, windows server, VMWare, Docker, Vagrant, Ansible, Chef, Puppet, Argocd, Harness across Financial and Healthcare sectors.
* Experience in working with configuration management tools like Puppet, Chef, and Ansible. Experience in setting up Puppet Master, Puppet Agents for managing enterprise policies and configurations.
* Leveraged **Terraform** and CloudBuild to automate the deployment and management of **GCP resources like GKE cluster, Compute Engine, BigQuery, PubSub, GCS, Vertex AI, DataProc and so on.**
* Proficient in Kubernetes to manage containerized applications using its nodes, config maps, selector, services, and deployed application containers as pods.
* Create Ansible roles and playbooks and Puppet Modules to configure, deploy and maintain software components of the existing/new infrastructure.
* Created custom sized VPC, subnets, NAT to ensure successful deployment of web applications and database templates.
* Experienced in working on AWS and its service like VPC, EKS, EC2, IAM, ECS, EBS, RDS, S3, Lambda, ELB, Autoscaling, Route 53, Cloud Front, Cloud Watch, Cloud Trail, Cloud SQS and SNS.
* Strong experience in AWS, creating, importing, launching volumes, EC2, RDS, Lambda, security to design cost-effective, fault-tolerant and highly available systems.
* Expertise in working with Terraform key features such as Infrastructure as a Code, execution plans, change automation and extensively used Auto scaling launch configuration templates for launching EC2nstances while deploying microservices.
* Deployed applications which are containerized using Docker onto a Kubernetes cluster which is managed by Amazon Elastic Container service for Kubernetes.
* Configure Jenkins to build CI/CD pipeline which includes to trigger auto builds, auto promote builds from one environment to another, code analysis, auto version etc. for various projects.
* Extensively worked on Artifactory and Nexus Repository to deploy software built through Jenkins Build Jobs.
* Worked on Installing SonarQube on standalone server and run sonar scanner to scan the GitHub repo and push results to sonarqube dashboard and automated by installing plugins in Jenkins.
* Responsible for ensuring Systems and Network Security, maintaining performance, and setting up monitoring using Cloud Watch, Jager, Kiali, Grafana, Rabbit-MQ & Splunk.
* Experience in deploying fault tolerant environment, cost effective, highly available and secure servers in GCP.
* Create custom sized VPC, subnets, NAT to ensure successful deployment of web applications and database templates.
* Experience in all phases of the software development life cycle (SDLC) with specific focus on the build and release of quality software. Experience in Waterfall, Agile/Scrum Development.
* Experience in installation, configuration, backup, recovery, maintenance, support of Linux and Windows, Administration of Windows, Red Hat Linux, Cent OS and VMware Environments.
* Create Ansible roles and playbooks and Puppet Modules to configure, deploy and maintain software components of the existing/new infrastructure.
* Configure Jenkins to build CI/CD pipeline which includes to trigger auto builds, auto promote builds from one environment to another, code analysis, auto version etc. for various projects.
* Proficiency in writing automation scripts using Shell, Power Shell, JSON, Python to support infrastructure as code and continuous deployment.
* Expertise in areas of Linux Administrator, Build/Release Management, Migration of on-prem applications to multi cloud environments and with a wide range of experience in planning and requirement analysis.

**EDUCATION**

* MS in Computer Science: Governors State University, Illinois.
* Bachelor of Technology: Jawaharlal Nehru Technological University, Hyderabad.

**TECHNICAL SKILLS**

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| **Cloud** | GCP, AWS |
| **GCP Services** | GKE cluster, Compute Engine, Cloud storage,BigQuery, PubSub, Vertex AI, Datproc, App Engine, Cloud SQL, Cloud IAM, VPC |
| **AWS services** | EC2, ELB, VPC, RDS, AMI, IAM, Cloud Formation, S3, Cloud watch, Cloud trial, SNS, SQS, EBS, Route 53, Lambda, API Gateway, Elastic Cache, ECR, EKS |
| **Configuration Management** | Puppet, Ansible, ArgoCD, Harness |
| **Continuous Integration** | Jenkins, Git, GitHub Actions, Azure DevOps |
| **Build Tools** | Ant, Maven |
| **Operating System** | Linux, Windows |
| **Scripting Language** | Bash, Python, Shell |
| **Monitoring** | Rabbit-MQ & Splunk, Jager, Kiali, Grafana |
| **Containerization** | Kubernetes, Docker |

**PROFESSIONAL EXPERIENCE**

**FHLBC July 2022 – Till Date**

**Chicago, IL**

**DevOps / GCP Engineer**

**Responsibilities**

* Collaborate in the automation of GCP infrastructure via Terraform, Cloud Build and Jenkins - software and services configuration.
* Working on .net and Java Spring Microservices application and migrated applications from on-prem to GCP cloud.
* Creating GKE Clusters using Terraform and Cloud Build and worked on creating pods, replica sets, services, deployments, labels, and health checks using YAML files and deployed those yaml files via ArgoCD and Harness.
* Configuring Helm charts for application deployments, enabling standardized and repeatable deployments within GKE clusters.
* Implementing Kubernetes secrets management using Google Cloud Secret Manager and Vault, enhancing security for sensitive data stored in GKE clusters
* Optimizing GKE cluster performance, including tuning resource requests, pod autoscaling, and fine-tuning the Kubernetes networking layer for low-latency communication.
* Implemented Horizontal Pod Autoscaling (HPA) and Cluster Autoscaler to ensure GKE clusters can efficiently handle traffic spikes and scale down when demand decreases.
* Deployed and configured GCP services including Compute Engine, Cloud Storage, Cloud SQL, and Cloud Functions, GCP Dataflow, PubSub, Bigquery, Service Accounts, assigning roles to IAM via terraform and Cloud build to support application workloads.
* Analyze all product component issues including Software, Hardware, Database and Network interfaces using various tools and monitoring applications such as Jager, Kiali, Grafana, Rabbit-MQ & Splunk
* Developing and maintaining continuous integration pipelines using CircleCI for building the applications, testing, pushing the image to GCR or Nexus repository.
* Set up monitoring and alerting with Stackdriver Monitoring, improving system visibility and reducing downtime by 30%.
* Leveraged GCP BigQuery and Cloud Storage to analyze and manage large datasets, integrating data pipelines into CI/CD workflows to automate data processing and reporting.
* Integrated Harness with GKE and Kubernetes, enabling seamless application deployments and rollbacks with minimal downtime
* Implemented cloud networking solutions, including VPC design, subnetting, VPNs, and load balancing for multi-cloud environments.
* Strengthened security posture by implementing IAM roles and permissions, network policies, and encryption mechanisms.
* Secured cloud infrastructure by implementing IAM policies, network security, firewalls, and encryption strategies.
* Creating a fully automated build and deployment platform and coordinating code builds promotions and orchestrated deployments using Jenkins, Harness and GitHub.
* Enforce best security practices to secure containerized environment using Seccomp, SeLinux and security features of Kubernetes.
* Strong hands-on experience on Kubernetes concepts and implemented features such as HPA (Horizontal Pod Auto Scaling), Kubernetes secrets, readiness probe and liveness probe, Daemon sets, ConfigMaps, etc.
* Deployed Prometheus with Grafana to monitor the Kubernetes cluster and configured alerts firing when different conditions met.
* Ensuring cluster security with image vulnerabilities scanning with Twistlock, container runtime security, orchestration platform security.
* Automated CI/CD pipelines with Jenkins and Harness, leading to a 40% decrease in deployment time.
* Generating Kubernetes YAML via Jenkins and deployed into GitLab. Maintain and track inventory using Jenkins.
* Developed Python scripts to automate the provisioning, configuration, and management of GCP resources, reducing manual intervention and improving deployment efficiency.
* Integrated Python scripts into Jenkins and GitLab CI pipelines for automating the deployment of containerized applications on GKE (Google Kubernetes Engine).
* Developed Python scripts to build and deploy Docker containers in GCP environments, reducing build and deployment time.
* Designed, develop and test VPC (Virtual private cloud), Subnets, Network security, Security groups, Internet Gateways etc. to deploy and maintain Client IT Infrastructure.
* Designed cloud networks to ensure secure, high-performance connectivity across multi-cloud and hybrid environments.
* Worked with Ansible playbooks, tasks, roles and templates for WAR files and configured files by conditions by keeping dynamic values and triggering Yaml files in Ansible.
* Implementing new Docker container creation process for each GitHub branch. Working on creation of Docker containers and Docker consoles for managing the application life cycle.
* Extensively working on installation, configuration, and maintenance of RHEL servers
* Implemented backup and disaster recovery solutions on GCP using creation of GKE cluster in another region, Cloud Storage and Cloud SQL, ensuring business continuity and minimal downtime in case of failure.
* Created and maintained Terraform modules for reusable and scalable GCP infrastructure components such as VPCs, subnets, firewalls, and Cloud Storage buckets, improving efficiency and reducing errors across multiple environments.
* Set up and managed GCP Dataflow pipelines, enabling scalable data transformation and ETL processing for large datasets, integrated with other cloud services like BigQuery.
* Worked in automation, setup and administration of build and deployment tools such as Jenkins, Rundeck and Artifactory.
* Developed MicroServices on boarding tools leveraging Python and Jenkins allowing for easy creation and maintenance of build jobs and Kubernetes deploy and services.
* Installed, configured, and managed Ansible server and created playbooks to various application servers and used Ansible to automate repetitive tasks.

**Environment:** GCP, Kubernetes, Docker, Jenkins, CircleCI, GIT, MAVEN, JIRA, Terraform, ArgoCD, Ansible, MS Visio, Shell, VMware, Jfrog Artifactory, Harness.

**Costco May 2019 July 2022**

**Remote**

**Cloud/DevOps Engineer**

**Responsibilities**

* Designed and implemented CI/CD pipelines using Jenkins and Google Cloud Build, reducing deployment time.
* Managed GCP resources and services, including Compute Engine, GKE, and Cloud Functions, optimizing performance and cost.
* Migrated legacy applications to Kubernetes on GKE, reducing infrastructure costs and increasing deployment efficiency through containerization and orchestration.
* Automated infrastructure provisioning and management using Terraform, leading to reduction in manual configuration errors.
* Worked on hybrid cloud migration projects, integrating on-premises environments with cloud platforms, ensuring smooth data flow and minimal downtime.
* Collaborated with development teams to establish best practices in version control, code reviews, and release management.
* Configured the applications in ArgoCD and setup ArgoCD to auto sync Kubernetes YAML file to deploy to GKE cluster.
* Migrated legacy Jenkins pipelines to CircleCI, improving ease of use, speed, and maintainability of build and deployment workflows.
* Performed GKE cluster upgrades and patches with minimal disruption, ensuring continuous availability and compliance with the latest Kubernetes features and security updates.
* Integrated GCP Pub/Sub and Cloud Functions into event-driven architectures, automating processes and scaling applications dynamically based on traffic demand.
* Utilized GCP Artifact Registry and Container Registry to store, manage, and deploy Docker images and other artifacts, streamlining CI/CD pipelines for cloud-native applications.
* Managed GCP project organization and billing using Cloud Billing and GCP’s resource hierarchy, ensuring optimal resource allocation and cost governance.
* Managed Kubernetes clusters on GCP Kubernetes Engine, optimizing resource utilization and scaling applications based on demand.
* Implementing new Docker container creation process for each GitHub branch. Working on creation of Docker containers and Docker consoles for managing the application life cycle.
* Migrated on-premises applications to GCP, improving scalability and reliability.
* Implemented monitoring and alerting solutions using Stackdriver, ensuring high availability and performance of services.
* Developed and maintained scripts for automation of routine tasks and infrastructure management.
* Utilize automation and orchestration systems and tooling to manage a broad portfolio of containerized web applications, configuration files, databases, user mount points, and deployment packages.
* Created and maintained cloud infrastructure documentation, including architecture diagrams and workflows, using Microsoft Visio.
* Work extensively on public cloud platforms delivering Infrastructure as service (IAAS) and Platform as service (PAAS) solutions.
* Implement security best practices in public and private clouds and secure containers and microservices.
* Execute on all release engineering aspects of DevOps including Configuration Build and Deployment Management, Continuous Integration and Delivery.
* Develop automated, continuous application build and deployment processes (CI/CD), focusing on the regular improvement of end-user experience.

**Environment:** GCP, Kubernetes, Docker, Jenkins, GIT, MAVEN, JIRA, Terraform, ArgoCD, Ansible, VMware, MS Visio.

**BCBS Jan 2018 – May 2019**

**Omaha, NE**

**DevOps Engineer**

**Responsibilities**

* Created a fully automated build and deployment platform and coordinating code builds promotions and orchestrated deployments using Jenkins, Harness and Github.
* Experienced in using AWS Lambda to execute code in response to trigger AWS services such as S3, DynamoDB, Kinesis, SNS and CloudWatch.
* Configured and maintained Jenkins to implement the CI process and used Maven to schedule the builds.
* Build EC2 servers on AWS, imported volumes, created auto-scaling, load balancers, Route 53, and SNS.
* Configured Ansible to manage AWS and automate build process for AMIs used by all application deployments.
* Designed and deployed Elasticsearch clusters on AWS EC2 instances or using managed services like Amazon Elasticsearch Service. Created custom roles in AWS, allowing pods to consume this role using Kubernetes service accounts thus limiting access to AWS resources at pod level and ensuring security.
* Developed custom Helm charts to package Kubernetes applications and services, enabling standardized deployment and configuration management.
* Implemented best practices for Helm chart structure, including templates, values files, and dependencies.
* Experienced with ETL tools like AWS Glue, Apache Spark, or custom scripts for loading data into Redshift from various sources (S3, RDS, DynamoDB, etc.).
* Created Terraform templates to create custom VPC, NAT, S3, RDS to deploy of webapps and Databases.
* Generated Kubernetes YAML via Jenkins and deployed into GitLab. Maintain and track inventory using Jenkins.
* Managed deployments in EKS managed Kubernetes, setup multi nodes cluster and deployed containerized applications.
* Configured AWS IAM and security groups in public and private subnets in VPC.
* Extensively working on installation, configuration, and maintenance of RHEL servers
* Worked on ELK architecture and its components like Elastic search, Log stash, and Kibana. Handled installation administration, and configuration of ELK stack on AWS.
* Developed build and Deployment Scripts using ANT and MAVEN as build tools in Jenkins to move from one environment to other environments.
* Worked in automation, setup and administration of build and deployment tools such as Jenkins, Rundeck and Artifactory.
* Installed, configured, and managed Ansible server and created playbooks to various application servers and used Ansible to automate repetitive tasks.
* Using Confluence to create, share and discuss content and projects.
* Designing and implementing an entire infrastructure to build servers on VMware using Terraform.
* Have good knowledge on test planning, test data creation, developing test scripts.

**Environment:** AWS, Kubernetes, Docker, Jenkins, GIT, MAVEN, JIRA, Terraform, Ansible, Shell, VMware, Artifactory

**Centene corp Jan 2017 – Nov 2017**

**Dallas, TX**

**DevOps/AWS Engineer**

**Responsibilities**

* Work with application development teams to ensure that their applications are designed properly for interacting with AWS.
* Hands on experience in EC2, VPC, Subnets, Routing tables, Internet gateways, IAM, Route 53, VPC peering, S3, EKS, ELB, RDS, Security Groups, Cloud Watch, SNS on AWS.
* Maintain and administrate GIT source code tool and create branches, labels and performed merges in GIT and implement and maintain the branching and build/release strategies utilizing Subversion in Linux.
* Integrated CloudBees Jenkins with cloud platforms (AWS, Azure) to deploy applications and services in cloud environments.
* Leveraged CloudBees tools to automate cloud resource provisioning and management within CI/CD pipelines.
* Maintain Jenkins continuous integration infrastructure and automated releases to DEV/TEST/STG/PROD environments.
* Configure, monitor, and distribute on multi-platform servers using Puppet. Define Puppet server and workstation to manage and configure nodes.
* Created local repositories in Jfrog Aritfactory and integrated with Jenkins and rundeck.
* Deployed application which is containerized using Docker onto a Kubernetes cluster which is managed by Amazon Elastic Container Service.
* Created new Jenkins project along with puppet configuration setup for the Java and windows application.
* Worked in solving tickets issued on day-to-day activities and problems related to deployments and servers and handle production issues.
* Virtualize the servers using the Docker for the test environments and dev-environments needs. and configuration automation using Docker containers.

**Environment:** AWS, bash script, AWS Linux AMI, Puppet, Jenkins.

**Raminfo Ltd, Hyderabad, India May 2014 – Jul 2015**

**Linux Systems Administrator**

**Responsibilities**

* To manage the day–to-day tasks, operation and problem-solving of a team to meet with the required service level Agreements and standard.
* Installation of VMware ESX 3.5 and administration of VMs.
* Patches and Package administration for installation of patches following company policy.
* Take care of 1500+ Linux Servers in critical production environment with 24/7 support running in-house applications, web services and databases.
* Coordination with datacenter support teams to perform hardware upgrades (Addition of CPU, Memory and PCI cards).
* Regular performance tuning after installing/ upgrading / deployment of patches and proactive monitoring to maintain a good database server.
* Work on the configuration of server using monitoring tool like Nagios.
* Installation and management on Linux servers for applications like Apache and Tomcat.

**Environment:** Windows 2007, 2008, Linux Red Hat4.0/5.0, HTTP**,** Apache, Tomcat.