SANDESH K

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Certificate ID: LF-mqwj85tmrk

PROFESSIONAL SUMMARY:

DevOps Engineer/ Site Reliability Engineer with 8 years of experience across dynamic environments, with a proficiency in **infrastructure automation**, **Configuration Management**, Migrating, Optimization and Modernization of Applications, and **implementing Containerization** for enhanced **security** and **scalability**. Adept at ensuring Stack Observability, overseeing the **Software Development Life Cycle (SDLC)**, involving cloud computing platforms like **Azure, Google Cloud Platform (GCP)** and **Amazon Web Services (AWS)**.

- Proficient in handling a wide array of **Microsoft Azure** Services, including Virtual Machines, Virtual Networks, Azure **Kubernetes** Service, Key Vault, **Azure Functions**, Azure SQL, Azure Logic Apps, **Azure DevOps**, Azure Monitor, and Azure Security Center.
- Demonstrated expertise in using key **Google Cloud Platform (GCP)** services, including **Google Kubernetes** Engine, BigQuery, VPC Network, **Stackdriver** Monitoring, and Cloud SQL.
- Experienced in utilizing widely-used services such as Pub/Sub for real-time messaging, **Firestore** for NoSQL storage, and Cloud Functions for serverless computing. Further showcased the effective use of Google **Cloud Deployment Manager** for infrastructure management through code.
- Highly skilled in leveraging a broad spectrum of **Amazon Web Services (AWS)**, including but not limited to EC2, EBS, IAM, S3, RDS, VPC, **CloudFormation**, and **Terraform Templates**. Also experienced with AWS services like ASG, **Lambda**, and **RedShift** for effective cloud solution design and management.
- Spearheaded the migration of **on-prem** applications to **Azure private cloud**, which included requirement gathering, deployment design documentation, and **architectural planning**. Utilized CI/CD, **Packer**, **Terraform**, and **Azure DevOps** for efficient integration and deployments.
- Authored **Infrastructure as Code (IaC)** in **Terraform** for robust **Azure resource management** and AWS **CloudFormation**. Crafted **reusable Terraform** modules to enhance scalability in both **Azure** and **AWS** cloud environments.
- Experienced in setting up automated testing frameworks for **Terraform** code validation, ensuring the correctness of infrastructure changes before deployment.
- Demonstrated proficiency in establishing **AWS** databases with RDS and **DynamoDB**, implementing storage solutions via **S3 buckets**, managing backups and archives using **Glacier**, and configuring **AWS Redshift** for efficient data warehousing.
- Mastered the use of **Google Kubernetes Engine (GKE)** for orchestrating and deploying containerized applications, emphasizing automation and scalability, which streamlined container management processes.
- Excelled in automating, configuring, and deploying instances across **Azure** environments and data centers. Showcased proficiency in migrating on-premises systems to Windows Azure seamlessly using **Azure Site Recovery** (ASR) and Azure backups.
- Orchestrated container management using **Kubernetes**, handling applications via **nodes**, **Config Maps**, **Selectors**, and **Services**. Also adept at managing Kubernetes manifest files and **Helm** packages for efficient deployment, scaling, and load balancing of **Docker** containers across various namespaces and versions.
- Led the implementation of configuration management tools such as **Ansible** for automation and consistency across **GCP and AWS** servers and instances and pioneered the use of **Ansible playbooks** and **Ansible Tower** for streamlined task automation and expedited deployment of key applications.
- Established robust monitoring solutions for **Kubernetes** clusters and applications using **Prometheus** and **Grafana**, providing real-time performance insights. Also configured monitoring and **logging** systems with Prometheus, Grafana and proactively detecting performance issues and security threats.
- Deployed and configured **Datadog** agents on various servers, hosts, containers, and services within the organization's environment.
- Streamlined the integration of **Kubernetes** with CI/CD pipelines, automating build, test, and deployment processes using **Jenkins** and **GitLab**. Also experienced in incorporating **Selenium** into the CI/CD pipeline for comprehensive automation of functional and regression testing for web applications.
- Expertise in **Git** version control and orchestration tools, constructing robust **pipelines** for seamless software development and demonstrated the ability to proficiently architect, deploy, and manage cloud-native solutions.
- Utilized **SonarQube** to analyze code quality in feature branches and pull requests, enabling developers to check code quality before merging changes into the main codebase.
- Demonstrated expertise in setting up the **Chef environment**, including the configuration of **Chef repositories** for effective version control and collaboration. Skilled in establishing **Chef workstations** for developing and testing infrastructure code. Also experienced in managing **Chef nodes**, ensuring efficient deployment and configuration of applications and systems.
- Showcased proficiency in **Docker** for containerization, packaging applications and their dependencies for consistent deployments across development, **testing**, and production environments. Also excelled in optimizing resource utilization and enabling horizontal scaling for efficient and flexible application deployments.

- Led the development of build scripts using **Gradle** and **Maven** tools within **Jenkins** using **groovy** scripting, ensuring seamless environment transitions during software deployment.
- Demonstrated strong expertise in managing infrastructure resources with **Azure Resource Manager (ARM) templates**, ensuring seamless code and infrastructure updates integration
- Engineered the integration of **GCP's logging** and monitoring capabilities, using tools such as **Stackdriver**, Cloud Logging, and **Cloud Monitoring**, to build, configure, and maintain diverse environments.
- Brings a robust understanding of Software Development Life Cycle (SDLC) principles and industry best practices, with specialization in software development models such as **SAFe/Agile**, **Scrum**, **Jira**, and the Waterfall model.
- Skilled in integrating **Jira** with CI/CD tools, establishing end to end traceability between code changes and **Jira** issues, and automating development and deployment pipelines for streamlined DevOps workflows.
- Worked closely with development, operations, and other teams, effectively communicating technical concepts and solutions to both technical and non-technical stakeholders.
- Adept at leveraging **Jira** for release management, effectively planning, tracking, and managing software releases, ensuring smooth and controlled deployments in alignment with DevOps principles.

TECHNICAL SKILLS:

- **Operating Systems** : RedHat, CentOS, Ubuntu, Linux, and Windows
- **Web/App servers** : Apache Tomcat, IBM WebSphere, WebLogic, Nginx
- **SCM Tools** : GitHub, Bitbucket, Azure Repos
- **Cloud Platforms** : Amazon Web Services (AWS), Google Cloud Platform (GCP), Microsoft Azure
- **CI/CD Tools** : Jenkins, GitLab CI/CD, ArgoCD, Azure DevOps, AWS Code Deploy
- **Build Management** : Maven, Gradle
- **Automation tools** : Ansible, Chef
- **Microservice Orchestrator** : Docker Swarm, Kubernetes, Helm
- **Monitoring** : Datadog, ScienceLogic, Prometheus, Grafana, Appdynamics
- **Logging Tools** : Splunk, Nagios, ELK stack, Dynatrace
- **IaC** : Terraform, AWS CloudFormation, ARM Templates
- **Databases** : MySQL, PostgreSQL, MongoDB, DynamoDB, Apache Cassandra
- **Scripting Languages** : Java, Python, Groovy, PowerShell, Ruby
- **Code Analysis & Securing** : SonarQube, Snyk
- **Incident Response Tool** : PagerDuty & Opsgenie
- **Package Management** : Packer, Artifactory
- **Test Automation** : Selenium, JUnit, Pytest, Jmeter
- **Collaboration tools** : Slack, Microsoft Teams, JIRA, Confluence, Service Now

WORK EXPERIENCE:

Sr. Site Reliability Engineer — Sept 2022 – Current
Kroger / Remote

- Leveraged **Kubernetes** and **Docker** for Infrastructure as Code (IaC), ensuring version-controlled and repeatable environment setups. Specialized in troubleshooting and debugging Kubernetes clusters and managed Kubernetes charts using Helm packages for reproducible builds.
- Implemented **cloud security** best practices to protect data and maintain compliance with industry standards.
- Conducted regular **security** audits to identify and **mitigate potential threats, enhancing** overall **cloud security**.
- Configured Service Hooks to integrate **Azure DevOps** with external services, enhancing automation and collaboration
- **Enforced security policies** to safeguard organizational data, while also promoting a culture of security awareness through regular staff training.
- Automated the creation and management of **Azure** infrastructure using **Terraform** for various IAAS and PAAS Services such as **Vnet**, **AKS**, VM, VMSS, App services, **App Functions**, App gateway, **Route table**, Private link, Endpoints, Storage accounts, SQL, **Key vault**, **Logic apps**, and AD.
- Leveraged **Terraform** to architect highly available infrastructure, utilizing reusable code blocks for efficient resource management. Implemented features such as ingress and **certificate installation**, significantly enhancing **security** and **reliability** of the system.
- Utilized **Ansible** for configuration management and **Packer** for creating machine images. Integrated these tools with **Azure DevOps** for streamlined provisioning and configuration of infrastructure resources.
- Implemented automation of numerous DevOps tasks using Python libraries such as **boto3**, **Flask**, and **Chalice**. Worked in **collaboration** with development and **QA** teams to facilitate a smooth transition of services from on-premises infrastructure to **Azure Cloud**, ensuring minimal disruption
- Leveraged various **Azure DevOps** features, such as Boards, Repos, **Pipelines**, **Artifacts**, and Test Plans, to streamline project management, version control, **CI/CD**, dependency management, testing and other **Azure** services, such as App Service, Functions, and Key Vault, to build, deploy, and secure scalable cloud applications.

- Ensured high availability and fault tolerance of **Kubernetes** clusters and applications by deploying them across multiple zones and **regions**, using **load balancers** and health checks, and automating **backup** and **recovery** processes
- Managed application servers **WebSphere** and **Tomcat**, ensuring high availability and performance. Deployed web applications within the **Azure** environment and maintained high-quality deployment patterns.
- Configured **Datadog** with **Ansible** automation to monitor **EC2** instances. Established **data pipelines** and created comprehensive reports, improving visibility and insights into system performance and **log data**.
- Employed anomaly detection in **Datadog** for automatic alerting of unusual patterns and crafted personalized **dashboards** for immediate insights into system metrics and **performance.**
- Collaborated with development and QA teams to facilitate a smooth transition of services from on-premises to **Azure Cloud** environments, adhering to high-quality deployment patterns and standards.
- Orchestrated the creation of a fully automated build and deployment platform using **Jenkins**, **Harness**, and **GitHub**, coordinating code builds and deployments.
- Authored custom **PowerShell** scripts for continuous deployment within the Release Template. Developed additional PowerShell scripts for automated log analysis, event monitoring, and performance metrics collection, thereby streamlining the debugging process.
- Managed pods and nodes within **Kubernetes** clusters and administered **Helm** package releases for effective application management.
- Safeguarded sensitive data and credentials using **HashiCorp Vault** and **Azure Key Vault** for secrets management. Leveraged **Azure Key Vault** extensively for secure encryption of sensitive data, ensuring robust data protection and **continuous compliance** with security standards.
- Developed functions in **AWS Lambda** to aggregate data from incoming events, with the output data stored in **Amazon DynamoDB**.
- Increased visibility into security risks for OS, Containers, and code/libraries by integrating vulnerability analysis into CI/CD with **Snyk** setting up risk alerting and collected **confidential data/charts/graphs** to all be easily accessible from **Jenkins**
- Utilized **Datadog** for infrastructure health monitoring and performance tracking, facilitating early issue detection and alerting through integrations with **PagerDuty** and Alert Manager. Employed **Datadog** for capacity planning by analyzing historical data and trends to optimize resource scaling and capacity adjustments.
- Effectively maintained the **PostgreSQL** Database, ensuring regular backups and restores as needed.
- Established monitoring, metrics, and reporting systems using **Prometheus** and **Grafana** for precise observability and effective alerting, integrated with **Opsgenie**.
- **Resolve** and **analyze** issues related to **Azure** and LCS applications, engage with product teams, and participate in **on-call rotations** to support **live-site** applications.
- Worked closely with development/testing, deployment, systems/infrastructure, and project teams to ensure smooth operation of SDLC.
- Proficient in a wide range of **Microsoft 365** products, including **Word, Excel, PowerPoint, Outlook, OneNote, OneDrive**, and **Teams**. Leveraged these tools to enhance productivity, collaboration, and business processes.

Sr DevOps / Cloud Engineer Aug 2020 – Jul 2022
Optum / Minneapolis, MN

- Orchestrated **GCP** instances across diverse environments and data centers, showcasing mastery in **Compute Engine**, **Kubernetes** Engine, and **Stackdriver** Monitoring.
- Utilized **Google Cloud Platform** services to architect robust cloud solutions, showcased proficiency in creating secure, scalable, and reliable cloud infrastructure
- Programmed **Terraform** modules from the ground up for **GCP** and **AWS Services**, utilizing the latest versions, interpolations and providers, and instituted automated testing frameworks for rigorous Terraform code validation.
- Applied application security measures, including regular updates and **patches** to prevent **unauthorized access**.
- Implemented **Azure DevOps** pipelines and configured Service Hooks to integrate with **DataDog** for real-time monitoring and alerting. This enabled proactive issue detection and swift resolution, enhancing system reliability and uptime.
- Worked on **Helm Charts** from scratch to do the active deployments on **Kubernetes Clusters**. Deployed highly available and fault-tolerant applications on **AWS**, leveraging **Kubernetes** and **Apache Mesos** for efficient container **orchestration** and resource management.
- Established an automated continuous delivery pipeline for **Google Kubernetes Engine** (**GKE**) using **GCP Cloud Build**, seamlessly integrating **ArgoCD** with **Cloud Build** to trigger the CI/CD pipeline automatically upon code changes.
- Managed **Helm charts** to streamline installation and upgrades of **Kubernetes** applications, enhancing operational readiness and accelerating cloud-native adoption.
- Utilized **Docker** for containerization of custom web applications, which were subsequently deployed on **Digital Ocean** using **Ubuntu** instances. Leveraged **Docker Swarm** for orchestration within a **Swarm Cluster** and automated cloud application deployment using **Docker Hub** and **Vagrant**.
- Set up monitoring systems using **Splunk**, **GitHub Actions and Dynatrace** for CI/CD pipelines. Orchestrated the creation of a fully automated build and deployment platform using **GitHub Action**, coordinating code builds, and deployments.
- Employed cloud tamer to deploy logging **CloudFormation** stacks which deploys **Splunk logging** infrastructure to AWS tenants, including logging **Lambdas**, IAM roles which creates HEC token and stores in secrets manager.
- Experience with **Splunk Searching** and **Reporting modules**, Knowledge Objects, Administration, Add On's, **Dashboards**, **Clustering** and Forwarder Management.
- Created **Docker** files from scratch to build **Docker** images, managed **Docker** container **snapshots**, image removal, and **Docker** volume. Performed automation tasks involving multiple **Docker** components.

- Established a virtual data center in **GCP** to accommodate Enterprise Data Warehouse hosting, while concurrently maintaining an **Ansible** server and workstation and used it to manage **GCP** instances, by creating multiple **Ansible playbooks** in YAML for enhanced automation and control.
- Utilized **AWS CloudFormation** with **Jenkins** for infrastructure deployment, automated updates, and **AWS** deployments, and developed **Python** scripts for **Amazon API** operations.
- Developed an end-to-end **GitHub Actions** pipeline, integrating code from Stash (GitHub), resolving dependencies via **Artifactory**, and deploying using UDeploy.
- Leveraged **Packer** for multi-cloud image creation, enabling the generation of machine images compatible with various environments.
- Managed Linux servers for multiple functions, handling **Tomcat**/**nginx**, mail server, **MySQL** database, and firewalls in development and production environments.
- Constructed advanced **Elasticsearch Query DSL** queries to retrieve targeted data from indexes.
- Implemented shell scripts using **Bash**, **Perl**, **PowerShell**, and **Python** to automate various **processes** within the **software development lifecycle**.
- Automated workflows within **Jira** to ensure efficient triage, resolution, and communication during incidents.
- Administered **IAM** policies, utilizing **Active Directory** integration to enforce robust security measures within **Google Cloud Platform (GCP).**

Sr Systems Engineer Jan 2019 – Aug 2020
Optimum / Remote

- Engineered a **Docker** workflow to create application images and **dynamically** provision **Jenkins** CI/CD pipeline slaves, reducing build and deployment times.
- Developed and maintained **CI/CD** pipelines using **Jenkinsfile** and **Groovy**, standardizing and automating processes across multiple projects. This significantly enhanced the team's **DevOps** capabilities and efficiency by reducing manual effort.
- Implemented shared libraries in **Groovy** for code reuse across pipelines and collaborated with the development team to optimize **Jenkins pipelines**, leading to improved build times and resource utilization.
- Orchestrated **microservices** on **GCP** using **Google Kubernetes Engine (GKE),** providing a flexible and scalable infrastructure.
- Implemented automated backups for transient data-stores using the **Google Cloud SDK** and GCP's **gcloud** CLI, ensuring secure storage on **Google Cloud** Storage and **Google Persistent Disk**.
- Collaborated within distributed development teams using **Google Cloud** Source Repositories in **GCP** as the version control system.
- **Ansible Playbook** scripts for automated deployments, backup processes, and disaster recovery procedures. This automation improved operational efficiency and reduced downtime during deployments.
- Administered **production servers** running **RedHat**, **CentOS**, Ubuntu, Windows Server 2012.
- Automated the installation and configuration process of **Apache Webserver** using **Ansible**, ensuring consistent setups across different environments.
- Managed a variety of servers within the **Linux** environment, including **DNS**, NIS, **DHCP**, Squid, Samba, **VPN**, FTP, NFS, Firewall, **PostgreSQL** DB.
- Analyzed logs generated by various systems using **Splunk** to derive valuable insights.
- Managed project documentation, dependency control, and build automation processes with **Maven**.
- Establish **GitLab** infrastructure, create build processes with **gitlab-ci.yml** in **Docker** containers, and configure **JUnit** coverage reports and **integration tests** as part of the build.
- Assembled CI/CD pipelines for microservices and integrated **Maven**, **GitLab**, **SonarQube**, **Nexus**, **Docker**, **Slack** for providing immediate feedback to Dev teams after code check-in.
- Installed **Nagios** monitoring system to oversee the production server environment and implemented **Python scripts** for alerting mechanisms.
- Integrated Jira with CI/CD tools for end-to-end traceability between code changes and Jira issues.
- Provided **24/7 support** for deployment tools and systems, ensuring continuous availability
- Administered and maintained various Application and **Web Servers**, ensuring optimal **performance** and **security**. Regularly updated server software and implemented necessary patches.

Site Reliability Engineer Sept 2017 – Jan 2019
Blackhawk Network/ Pleasanton, CA

- Integrated **Kubernetes** with **CI/CD pipelines**, enhancing automation of build, test, and deployment processes. Designed, implemented, and automated CI/CD pipelines using **Git**, **Bitbucket**, **JFrog**, and **OpenShift**.
- Converted **CloudFormation** Templates to **Terraform** modules, facilitating seamless migration of AWS infrastructure.
- Developed **Ansible** Playbooks to efficiently manage configurations of **AWS nodes**. Developed and implemented an automated Linux infrastructure using **Ansible**.
- Leveraged advanced **Java** features, including **Lambda** expressions for enhanced processing capabilities and **Stream API** for **pipeline processing**.
- Implemented the compilation and packaging of project artifacts using **Gradle**, serving as a potent alternative to **Maven's** build and dependency management systems.
- **Monitored** and administered automated build and continuous integration processes.
- Utilized **AppDynamics** data to improve resource allocation and application efficiency.

- Implemented **Dynatrace monitoring** tool to monitor environment, created email alerts, and set **threshold** values in **Dynatrace** to proactively address any performance or issues within **GCP** infrastructure and conducted load testing on **APIs** and **Cassandra** database servers in **GCP** to determine their threshold under various scenarios and identify the breaking point.
- Managed incidents and resolved customer issues, and fixed production and pre-production problems using **Service-now,** and **PowerShell** tools. Documented and communicated the solutions to the team.
- Monitored the **PCI environment** using **AWS cloud watch logs** and participated in **24x7 on-call** rotation.
- Maintained **Python** deployment scripts for **WebSphere** web application server.
- Demonstrated expertise in **Linux**, LAMP, and **Tomcat** administration and leveraging Linux commands to interact with system resources, files, and directories.
- Installed, configured, and administered **UNIX/Linux** servers on **AWS**.
- Managed release, environments, deployments, CI/CD, incident management, version management.
- Assisted in migrating applications from **on-premises** datacenter to the **AWS cloud**.
- Configured and administered **Git** source code repositories.
- Implemented **Chef Recipes** for Deployment on build on internal Data Centre Servers. Used **chef** for **server provisioning** and infrastructure automation in a **SAAS** environment.
- Participate in **on-call** rotations and perform weekly **incident reviews** with pertinent teams and individuals
- Experience in **Azure IaaS**, Provisioning VM's, Virtual Hard disks, Virtual Networks, Deploying Web Apps and Creating **Web-Jobs**. Used **Jenkins** and **Code Deploy** for CI/CD pipelines.

DevOps Engineer Mar 2016 - Aug 2017
Capital One Bank/ Vienna, VA

- Implemented a robust **CI/CD pipeline** using **Jenkins**, integrating various tools for seamless operations. Experienced in executing **Terraform** jobs with **Jenkins** for efficient infrastructure setup in the **Azure environment**.
- Used **Ansible** for configuration automation and centralized management, automating server management for efficient configuration of existing servers and streamlining the build process for new servers.
- Managed containerized applications using **Azure Kubernetes Service (AKS)** for effective deployment and scalability.
- Experienced in managing **Linux** hosts using **VMware** virtualization technology.
- Configured **Red Hat** Cluster Nodes for my legacy applications and verified the **daily health check** on the Cluster Nodes
- Maintained security on **RHEL** and provide 24/7 **on-call** support for **Linux Production Servers**.
- Administered **Linux** servers for diverse roles, including managing **Apache/Tomcat** server, mail server, **MySQL** database, and **firewalls** in both development and production settings.
- Created and implemented **PowerShell** scripts to effectively troubleshoot and debug infrastructure and application issues.
- Created and utilized shell scripts for various administrative tasks such as managing server users and creating backup files for user data and essential server files.
- Adept at planning and executing virtual networks and managing system upgrades involving hardware, software, networks, servers, and peripheral devices.