SUBBARAMI REDDY K



DEVOPS ENGINEER

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OBJECTIVE

DevOps Engineer skilled in full-stack development, integrating development and operations to streamline Secure deployment pipelines, manage cloud-based resources, and enhance system scalability and performance.

SKILLS

Version Control System: Git, GitHub	Cloud Platforms: AWS, Azure
CI/CD Tools: GitHub Actions, Harness, Jenkins, ArgoCD	Project Management Tool: Jira, Confluence
IAC: CloudFormation, AWS CDK, Terraform	Operating System: Linux, Windows
Monitoring Tools: CloudWatch, Grafana, Prometheus	Databases: MS SQL, MySql, MongoDB
Container Technologies: Docker, Kubernetes	Scripting Languages: Shell script, PowerShell
Programming Languages: Python, java, JavaScript, Go	Security Tools: Qualys, Defender, Trellix
Frontend Technologies: HTML, CSS, Bootstrap, ReactJs	Backend Technologies: Nodejs, PHP

PROFESSIONAL EXPERIENCE

OneAdvanced

Feb 2023 -- present

DevOps Engineer, Bangalore

- **SOC Automation:** Implemented automated solutions for Qualys agent and Defender rollout, achieving **100%** coverage and reducing manual work by 90%. Ensured all VMs remained under security compliance.
- Automation with boto3: Developed multiple automation scripts, including client resource cleanup, database backup/restore on-demand, and COGS optimization with single-click automation.
- AWS SSO Automation: Built AWS SSO automation in the Internal Developer Portal (IDP) to enable selfservice access to AWS accounts for internal teams. Access is granted in a granular and dynamic manner based on user inputs, streamlining access management and improving operational efficiency.
- Audit Logging for AWS SSO Access: Created and implemented audit logs as part of the AWS SSO automation to monitor and track access to AWS accounts, enhancing security, compliance, and user activity tracking.
- Security Tool Migration: Migrated the virtual machine security reporting tools from Trellix to Qualys and Defender, and automated the removal of the Trellix tool from the VMs.
- Security Remediation: Remediated the existing EC2 instances based on Qualys and Defender reports to ensure the instances remained in compliance with organizational security standards.
- Internal Developer Portal: Designed self-service automations for internal teams for multiple use cases, such as OneClick developer onboarding to toolchain access and migrating DevSecOps pipelines from Fossa to Supply Chain Security Harness module.
- **Kubernetes Management:** Deployed and managed Kubernetes clusters on AWS EKS, leveraging serverless technologies to cut costs by 50%. Enhanced network and security setups for improved app performance.
- **IaC Development:** Built and maintained **CloudFormation** templates, **Terraform** organization standard modules, and **AWS CDK** for infrastructure management. Used **SAML templates** for serverless resources, ensuring streamlined cloud infrastructure management and security compliance.
- Monitoring Solutions: Set up monitoring and log management using CloudWatch and Fluent Bit, expediting issue resolution.
- **CI/CD Pipelines:** Designed Secure and optimized CI/CD pipelines using Harness and GitHub Actions, ensuring zero downtime and faster deployments.

- **Security:** Integrated secure secrets management and identity protocols, reducing manual checks and boosting compliance.
- **Disaster Recovery:** Implemented disaster recovery and cluster migration strategies using Velero for minimal downtime and enhanced reliability.
- **Cost Optimization:** Reduced infrastructure costs by 50% with autoscaling and automation using AWS Systems Manager.
- **Migration Leadership:** Led the shift from Harness FirstGen to Harness Next-Gen Pipelines, achieved full system compatibility and improved scalability.

EDUCATION

Rajeev Gandhi Memorial College of Engineering and Technology

B. Tech – Computer Science & Engineering

Graduated: 2023

Completed the bachelor's degree with Distinction - CGPA 9.1

ACADEMIC PROJECTS

Secure Transmission of Asymmetric-Based Encrypted Data Using Compression-Based Steganography

Developed a system for secure data transmission using encryption and steganography techniques, incorporating efficient DevOps principles.

- Designed a solution to encrypt and compress secret information, embedding it within images using steganography.
- Created a graphical user interface (GUI) using Python's Tkinter package.
- Technical Skills: Python (Tkinter, RSA, Huffman coding, Least Significant Bit (LSB), Discrete Wavelet Transform (DWT))

Schedule Management System

Developed a timetable generation system for educational institutions, optimizing scheduling and reducing manual intervention through DevOps practices.

- Built a user-friendly application for generating timetables based on user preferences, transitioning from paperbased to digital processes.
- Containerized the application and deployed it on AWS using Elastic Kubernetes Service (EKS) and RDS MySQL Database.
- Implemented CI/CD pipelines with Jenkins and GitHub Actions for continuous integration and collaborative development.
- Technical Skills: HTML, CSS3, JavaScript (ES6), PHP, Bootstrap, MySQL

TRANING

ArgoCD: Implemented ArgoCD for deployment automation and GitOps.

MLOps: Studied ML models and pipeline setups to enhance DevOps efficiency.

SecOps Tools: Learned to set up sandbox containers with gVisor and Seccomp tools to build secure containers. Utilized Trivy and Snyk for container security, and SBOM for open-source vulnerability management.

Policy as Code: Gained knowledge of Kyverno to set up security compliance in Kubernetes clusters and Cloud Custodian for governance.

CERTIFICATIONS

AWS Certified Cloud Developer	June 2022
Azure Certified Cloud Developer	Dec 2022
Python Cisco Networks	March 2020
INTERESTS	

Technical Writing: I write descriptive blogs about DevOps tools some of them are on my <u>Hashnode</u>, <u>Medium</u> and <u>GitHub</u>.

Farming: Engages in farming as a personal interest.