Madhusudhan

R&D Engineer| Devops Engineer

Experienced **DevOps Engineer** with expertise in **CI/CD pipelines**, **automation**, and **cloud-native solutions**. Proficient in system administration and troubleshooting to optimize network performance. Adept at **GitLab CI/CD**, **Kubernetes**, and **Snowflake deployments**, with a strong ability to align IT solutions with business needs.

Education

2019
MCA
PES University

2016
BCA
JSS SMI UG & PG Studies
Dharwad

Expertise

- Python
- Shell
- Golang
- Kubernetes
- Docker
- Ansible
- Helm
- Kube Burner
- Robot Framework
- Git,Gerrit

Contact

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Karnataka

Language

Kannada
English
Hindi
Telugu

Experience

2024 - Present
Bottomline

Senior Software Engineer

Task:
- Implemented a **GitLab** pipeline to seamlessly connect to Snowflake and deploy **UDTFs** provided by the Data Science team. Additionally, **automated** the process of copying and committing files to a **Bitbucket** repository within the same pipeline.
- Previously, the data was stored in a database, processed using SQL commands, and then sent to customers. I **optimised** this workflow by modifying the script to bypass database storage, allowing the data to be processed and tuned directly before being sent to customers via email. This solution, implemented in Python, reduced processing time and dependency on SQL-based data handling. As a result, the company achieved an estimated annual operational cost saving of **$988K**.

Tech Stack: Python, Shell Scripting, Snowflake, GitLab CI/CD

2021 - 2023
Nokia Solution and Network

R&D Engineer

Project: NOM (Network Operation Master): NOM is built on Nokia's cloud-native Common Software Foundation (CSF) designed to deliver applications that are hardware- and vendor
- Deployed **cert-manager** into the **RHOS** cluster, enhancing security and certificate automation.
- Worked on **Kube-Burner** to check the maximum number of PVC that can be created in cluster and exposing the pod outside the cluster.
- Deployed **LVMS operator** into the RHOS cluster.
- Developed Security hardening Interface (**Ansible** and **Python**) that Harden the RHEL Core OS, OpenShift Cluster and Nodes based on CIS Benchmark.
- Developed multiple Framework using Python and Bash shell script.
- Creating Confluence page for every new feature.
- Consistently met deadlines and requirements for all production work.

Tech Stack: Ansible, Kube-Burner, Kubernetes, Docker, Helm, Python, Shell

2019(Nov) - 2021(Feb)

Nokia Solution and Network

Project: Nokia NetAct is a field proven network management system that offers best-in-class applications for seamless daily network operations, including configuration management, monitoring and software management. NetAct supports network elements in mobile radio and core, Wi-Fi, IoT, public safety and telco cloud
- Designed and implemented multiple automation frameworks using **Python** and **Bash**, improving deployment efficiency.
- Created Test-case for the python scripts using **Robot-Framework**
- Developed a Framework that returns all the **WebSphere** applications which were stopped during the time frame.
- Created **Python framework** to automate processes that run daily to check disk usage and perform cleanup of file systems on Linux environments.
- Provided continued maintenance and development of bug fixes and patch sets for existing applications.
- Understanding the need of critical activity and completing on time.

Tech Stack: Python, Shell, Robot-Framework.Golang

2019(Jan) - 2019(Jul)

Nokia Solution and Network

Student Intern

Project: Nokia CmRepo is a project which stores the configuration details of all the servers and provides the data during the runtime of an application.

- Developed a framework called **Delta code** coverage that validates the test case covered for the particular script in the CI using Golang.
- Involved in Design, Development and Support phases of Software Development Life Cycle (SDLC)
- Developed multiple Framework using Python and Bash shell script.

Tech stack: Python, Shell, Robot-Framework, Golang

Key Achievements:

- **$988K** cost savings due to process optimization
- **Improved deployment speed** with GitLab CI/CD
- **Automated** numerous manual processes, leading to a measurable improvement in efficiency and reliability.