



Adithya Nair

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Github

LinkedIn

Profile Summary

Detail-oriented **Cloud Test Automation Engineer** with 2+ years of experience in **cloud infrastructure validation, DevSecOps automation, and Kubernetes-based deployments**. Skilled in **Python, Terraform, Flask, and Jenkins**, with a strong foundation in building scalable CI/CD pipelines and Infrastructure-as-Code (IaC) solutions. Experienced in **firmware validation, Kubernetes node lifecycle management, and AI-assisted automation**. Adept at optimizing cloud workflows, improving reliability, and ensuring security compliance across hybrid environments.

Work Experience

Cloud Automation Engineer, IBM India Pvt Ltd

Jul 2023 – present | Bengaluru, India

- **Develop and maintain automated test frameworks** using **Pytest** and **nose2** for cloud infrastructure API validation, ensuring high reliability in **IBM Cloud IaaS** deployments.
- **Perform API testing** using **Postman** and **REST API automation** to validate infrastructure deployments, security patches, and system integrations.
- Administer and maintain **Kubernetes cluster nodes**, performing node expansion and lifecycle management across multiple availability zones to ensure high availability and scalability.
- Developed an **AI-powered Retrieval-Augmented Generation (RAG) model** to automatically generate test plans from project specifications, reducing manual workload and improving testing efficiency.
- Conduct **firmware validation** and verification for **BIOS and BMC updates** on Kubernetes nodes, ensuring system stability and compliance with release standards.
- Integrated **AI-assisted coding tools** into development workflows using **Ollama** with **PyCharm** and **VS Code**, enabling secure, offline large language model usage to enhance productivity while maintaining data privacy and cost efficiency.
- **Implement DevSecOps best practices**, conducting **security-focused testing** for cloud deployments, API integrations, and infrastructure changes.
- **Champion Shift-Left testing methodologies** within Agile teams, enabling early defect detection through **mock server development** using **Flask**.
- **Prepare and execute comprehensive test plans** that cover **functional, performance, and security aspects** for cloud-native applications.

Software Developer Intern, IBM India Pvt Ltd

Jan 2023 – Jul 2023 | Bangalore, India

Key Responsibilities:

- Assisted in the development and deployment of software applications using various tools and technologies, such as Kubernetes, Python API, IBM Cloud, Docker, Continuous Integration, Continuous Deployment (CI/CD), Jenkins, Tekton CI/CD, and Terraform.
- Collaborated with the team to deploy software applications efficiently and effectively, ensuring that they met the highest standards of quality and performance.
- Utilized programming skills in Python to create and maintain automated processes for continuous integration and continuous delivery, helping the team develop and deploy software applications faster. Utilized GoLang to modify existing tools used in Kubernetes monitoring.

Freelance Software Developer, Western Technologies, Dubai

Oct 2022 – Jan 2023 | Remote

- **Developed a Flask-based web application** to streamline employee attendance tracking for on-site workers.
- **Integrated Google Sheets API as a database**, enabling real-time data storage, retrieval, and reporting.
- **Collaborated** to ensure a scalable and efficient solution tailored to client requirements.
- **Implemented authentication and access control**, enhancing security for attendance data management.
- **Deployed and tested the application on cloud infrastructure**, optimizing performance and reliability for on-site usage.

Projects Undertaken

Product Deals Tracker application, Android Development

Android application to track and find deals for users from online shopping platforms like Amazon, Flipkart, etc.

Tools: **Jsoup, WorkManager, SQLite**

Weather tracking app, Angular JS project

Angular web app that shows time and climate dynamically.

Tools: Angular.js, Rapid API.

Heart Failure Prediction Analysis, Data Science Project

Machine learning model predicts heart failure disease and also points out the elements responsible for it.

Tools: **Numpy, Matplotlib, Pandas, Scikit-Learn, SVM, KNN**

Skills

Programming Languages

Python, Golang, Shell Scripting

Developer Tools

VS Code, Pycharm, Google Colab, Github, Jira, Confluence, postman

Technologies/Framework

Github, Machine Learning, Deep Learning, Web Development, Image recognition, PostgreSQL, Linux, Android Development

Soft Skills

Ideator, Team player, Collaborator

Education

Bachelor of Technology in Computer Science, Amrita Vishwa Vidyapeetham

2019 – 2023 | Vallikavu, Kollam, India

Class XII, SN Central School (CBSE)

2017 – 2019 | Mavelikara, Alappuzha, Kerala

Class X, Bishop Moore Vidhyapeeth (ICSE)

2004 – 2017 | Mavelikara, Alappuzha, Kerala

Certificates

IBM Cloud Advocate

Certified Agile Scrum Master

CSM by ScrumAlliance

Publications

A Comparison of Explainable AI Models on Numeric and Graph-Structured Data