ADITYA R KHOT

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Education

Skills

- Languages Java, C, C++, Python, SQL, GoLang, YAML, HCL
- Technologies AWS, Jenkins, Docker, GIT, GitHub, GitLab, Kubernetes, Ansible, Terraform, Linux
- Others Data Structures, Algorithms, MySQL, Data Analytics, Machine Learning, CI/CD Pipelines

Work Experience

AWS Cloud and DevOps Engineer Intern, PVL (Pesu Venture Labs)

Jan 2024 - Present

- Established a cloud infrastructure to automate the process of initiation and termination of test servers through the utilization of EC2 Instances, Lambda functions, SNS, and API Gateways.
- Employed Terraform to automate infrastructure provisioning for 20+ services on aws cloud, ensuring efficient deployments of cloud services by defining and deploying infrastructure as code.
- Created an auto-scaling solution and implemented automatic start-stop mechanisms for servers using EC2, Load Balancers and CloudWatch to maximize cost-effectiveness in utilizing cloud services.
- Developed a messaging infrastructure with SNS for 13 servers to promptly notify stakeholders for server outages and unexpected shutdowns, ensuring swift response and effective management.
- Migrated EC2 Server Instances and RDS Databases for 3 products from one Cloud to Another to form a new production environment of product.
- Deployed 2 Architectures on AWS Cloud using automation by reading architecture in json and creating a Terraform code to deploy on cloud.

Projects

ClimateSmartAg Jan 2024

- Spearheaded the development of ClimateSmartAg, an innovative project dedicated towards analyzing and predicting GHG emissions from agricultural activities with 97% accuracy.
- Applied Machine Learning models with Python libraries, including SARIMA, Adaptive KNN, and XGBoost, to enhance accuracy and insights, highlighting proficiency in sustainable environmental impact assessment and least error rate of 0.44 for XGBoost.

MicroService Hack May 2023

– Employed Docker and Kubernetes to craft a readily deployable and portable blogging web app using flask and mongoDB and a total of 3 microservices. HTML and python languages are used to build frontend webpages.

– The microservices architecture will use Docker Containers and deploy a Kubernetes cluster with a mongodb server pod fronted with a web admin interface and a pod to run the flask app to work 2 actors for blogging.

Brain Stroke Prediction Feb 2023

– Developed a M L model using python libraries to assess the likelihood of occurrence of Cerebral Strokes in a patient using attributes like age, gender, bmi, hypertension, glucose level and heart disease a total of 11 attributes.

Achievements

- Organizing a Knowledge transfer Session for 150+ students aspiring to pursue a career in DevOps.
- Presented a research paper titled 'ClimateSmartAG' at an International Conference (2024).

Certifications

AWS Cloud Practitioner - (AWS)

- Worked on EC2 Instances, Lambda, S3 Bucket, API Gateway, IAM and other Basic AWS Services.

Linux Kernel Development

- Explored the Basics of Linux Kernel Development through a Beginners Guide.