Chamindu Madhushan

Software Technology Undergraduate | AWS Certified

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SUMMARY

BICT (Hons) in Software Technology (4th year undergraduate)with a strong foundation in **Linux** and Cloud Technologies. Seeking a **DevOps Engineer Intern** to leverage hands-on expertise in **Docker, Kubernetes, Terraform** and **cloud platforms AWS(Certified) and Azure**. Experienced in designing and automating **CI/CD pipelines with GitHub Actions** to enable seamless, scalable, and secure application deployments.

EDUCATION

Bachelor of Information and Communication Technology (Honors) July 2023 - Present
University of Sri Jayewardenepura, Faculty of Technology
Focus Area: Software Technology
Relevant Coursework: Network Essentials, Network System Design, System Administration, Software Engineering, Object-Oriented Programming (OOP), Data Structures & Algorithms, Web Application Development, Machine Learning, Database Systems, Data Mining and Warehousing, Software Deployment & Evolution.

G.C.E. Advanced Level 2021(2022) Engineering Technology Stream Aug 2021
Result: 3A
Island Rank: 24

TECHNICAL SKILLS

Cloud Platforms	AWS, Azure
Languages	JavaScript, Typescript, Python, Java, HTML, CSS, SQL
Databases	MySQL, MongoDB, PostgreSQL
Containerization & Orchestration	Docker, Kubernetes, AWS ECS, AWS Fargate
CI/CD Automation	GitHub Actions, Jenkins(Basics)
IaC	Terraform
Tools and OS	Linux, Shell scripting(Bash), Git, GitHub, Figma, Postman

PROJECTS

Cloud-Native Microservices Application
Tech Stack: AWS (EC2, VPC) | Terraform | Docker | Nginx | GitHub Actions | React | Node.js

- Architected a containerized microservices platform, configuring a single Nginx reverse proxy gateway to serve a React SPA and securely route /api/ traffic to two independent Node.js backend APIs.
- Provisioned reproducible AWS infrastructure using Terraform, enforcing least-privilege Security Groups and mandatory IMDSv2 metadata access to mitigate SSRF vulnerabilities.
- Engineered a zero-downtime CI/CD pipeline via GitHub Actions to automate SSH-based deployments and container rebuilds, reducing deployment cycles from 15 minutes of manual work to under 2 minutes.
- Executed an emergency security remediation using git filter-branch to purge leaked Terraform state files and SSH keys, reducing repository size by 99.2% (718MB to 58KB) and performing live cryptographic key rotation.
- Resolved critical Docker bridge networking failures by binding the Vite dev server to 0.0.0.0 and rewriting API calls to leverage relative Nginx routes, eliminating environment-specific configuration drift.

End-to-End MLOps Pipeline Deployment on AWS
Tech Stack: Python | MLflow | DVC | Docker | AWS (EC2, S3) | FastAPI | GitHub Actions | CI/CD/CT

- Architected and deployed a fully automated MLOps pipeline for wine quality prediction, implementing Continuous Integration, Continuous Training, and Continuous Deployment (CI/CT/CD) to enable automated model retraining and deployment with 100% reproducibility
- Established data and model version control infrastructure using DVC (Data Version Control) with AWS S3 remote storage, managing 5+ dataset versions and model artifacts to ensure complete lineage tracking and rollback capabilities
- Engineered automated CI/CD workflows using GitHub Actions to orchestrate end-to-end model lifecycle, including DVC pull, model training, artifact versioning, S3 push, and Git commit operations, reducing manual deployment effort by 90%
- Containerized machine learning inference API using Docker and deployed to AWS EC2 instances with zero-downtime updates and consistent runtime environments across development and production
- Developed and exposed RESTful prediction endpoints using FastAPI framework
- Implemented modular MLOps architecture separating code versioning (GitHub) from data and model storage (AWS S3), enabling independent scaling and maintaining data security compliance.
- Demonstrated production-grade CI/CT/CD capabilities by automatically retraining on each code change via CI pipeline and deploying updated models to production within 15 minutes of training completion

Automated Containerized E-Commerce Platform on AWS EC2
Tech Stack: Docker, GitHub Actions, AWS (EC2, ECR, VPC)

- Configured an AWS EC2 instance inside a custom VPC with strict security groups to isolate traffic and minimize the attack surface.
- Orchestrated a GitHub Actions pipeline to build the Docker image and automate deployments to EC2 instance via SSH, reducing manual release steps by 100%.

AWS App Runner(Serverless) Container Deployment
Tech Stack: Docker, GitHub Actions, AWS (App Runner, ECR)

- Packaged the application into a lightweight Docker container, reducing environment setup time for new developers.
- Implemented a fully automated CI/CD pipeline using GitHub actions to reduce deployment time by over 90% and ensure consistency.
- Deployed on AWS App Runner to eliminate manual server patching and reduce infrastructure provisioning time by 80% through fully managed auto scaling.

CERTIFICATIONS

- AWS Certified Cloud Practitioner (CLF-C02) **–** Amazon Web Services
- LFS101: Introduction to Linux – Linux Foundation
- Learn to Code in Python 3: Programming beginner to advanced **–** Udemy
- Fundamentals of MLOps – KodeKloud

REFERENCES

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