Tawanda Mafukidze

DevOps Engineer

WORK EXPERIENCE

AiCore

Trainee DevOps Engineer — 10/2023 – Present

- Designing and implementing reusable CI/CD solutions keeping in line industry best practices to streamline development workflows using Azure DevOps.
- Hands-on experience with creating infrastructure as code (IaC) solutions using Terraform.
- Using Azure Monitor and Azure Log Analytics for monitoring and ensuring the smooth operation of production and test environments using dashboards and alerting rulesets to detect and resolve issues.
- Developed an AKS setup to deploy Kubernetes manifests, facilitating the provisioning of essential resource types required to manage the application, thereby achieving an impressive uptime of 99.9%.
- Utilising GitHub and GitHub Actions for source control and automating build, test, and deployment pipelines

Kingspan Insulated Panels

Quality Engineer — 11/2021 – Present

- Led the SAP Hanna dataset analysis using Python libraries (Matplotlib, Numpy, Pandas) to enable data-driven decisions.
- Headed the automation of 60% of the department's quality testing processes using Power Automate and Python based scripts.
- Initiated routinely testing to identify and eliminate pipeline and code bugs, achieving a 95% reduction in post deployment issues and enhancing overall system reliability.
- Led multi-function team meetings, mapping out process improvements resulting in a 10% improvement in process efficiency.

Faurecia Automotive Seating

Simulation Project Engineer — 10/2018 - 07/2019

- Initiated the deployment of two discrete event simulation models to identify bottlenecks and inform manufacturing line changes leading a 33% increase in productivity and informed decision making.
- Developed data visualizations and reports to support decision-making, contributing to a 20% reduction in production costs through more informed resource allocation.

PROJECTS

Azure DevOps Pipeline — 12/2023

- Containerized a Python-based application with Docker, packaging the application code along with 4 dependencies.
- Automated the creation & deployment of 8 Azure resources, including networking components and an AKS cluster using Terraform.
- Developed Kubernetes deployment manifests for provisioning resource types to manage the application, resulting in 99.9% uptime.

CONTACT

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SKILLS

Technical Skills:

- Python.
- Docker
- Kubernetes
- Ansible
- Terraform
- Azure
- CI/CD
- Azure DevOps
- AWS
- Linux
- SQL
- git

EDUCATION

AiCore
Training - DevOps Engineering
10/2023 - Present

University of Manchester
Master of Science – Aerospace Engineering
09/2019 - 09/2020

Aston University
Bachelor of Engineering – Mechanical Engineering
09/2014 - 06/2019

CERTIFICATIONS

- Terraform Associate 003
- DevOps Engineer

- Implemented a rolling update strategy in the Kubernetes deployment, allowing for a maximum of one pod to be unavailable & minimizing downtime during updates.
- Designed and implemented Azure DevOps build & release pipeline to automate application deployment to AKS, reducing deployment time by 28%.
- Monitored application health post-deployment, tracking, and analyzing over 10 metrics using Azure Monitor.

AWS Cloud Resume 03/2024

- Developed a serverless web application to showcase a professional resume, incorporating a visitor counter for engagement tracking.
- Leveraged an array of AWS services including S3, Lambda, API Gateway, DynamoDB, and CloudFront to construct a responsive and highly secure website.
- Ensured a professional and secure web presence by implementing HTTPS encryption through AWS CloudFront service.
- Implemented continuous integration and deployment (CI/CD) using GitHub Actions, streamlining the development workflow for the entire project.
- Orchestrated seamless interactions between the frontend and DynamoDB database by configuring API Gateway and Lambda functions.
- Adopted Terraform to deploy the application and define AWS resources, embracing an infrastructure-as-code (IaC) approach for efficient management and scalability.