Ben Morton

DevOps Engineer

RELEVANT WORK EXPERIENCE

CONTENT ENGINEER - AICORE   02/2024 – PRESENT
- Developed and maintained 900 lines of CloudFormation which is triggered by a web page button, and causes the establishment of a resource stack consisting of 6 different AWS resources, and an email notification.
- Constructed a data collection pipeline to collect 50,000 rows of complex data from 15 different API endpoints, then cleaned, processed and visualised the data using tables and treemaps.
- Completed extensive research to become an expert in complex technical topics quickly, then planned and designed content for students to learn from with a corresponding industry-grade project.
- Built and reviewed collections of digital notebooks, consisting of ~20,000 words each in total, delivered in around 2-3 months.

SENIOR SUPPORT ENGINEER - AICORE   02/2023 – 02/2024
- Technical support and training to build and maintain Data & DevOps pipelines and cloud infrastructure using AWS, Azure, Docker, Kubernetes, Terraform, Python & SQL. Constantly fixing complex issues with setup, debugging and usage of these tools. See the projects.
- Management of the AWS and Azure cloud environments used to maintain ~250 students on their Data/ DevOps/Cloud projects using tools such as EC2/S3/MWAA/MSK/Kinesis/CloudFormation/Azure DevOps/Monitor/AKS.
- Reduced average code review time by 60% by implementing programmatic revamp of our code review process, boosting efficiency and freeing up support engineers for other tasks.
- Code quality assurance - conducted detailed code reviews across different specialisations, demonstrating meticulous attention to detail, commitment to programming and DevOps best practices.

PROJECTS

Azure DevOps Pipeline

- Containerised a Python application with Docker, packaging the code with 15+ dependencies.
- Automated creation & deployment of 8 Azure resources, including networking and AKS, using Terraform.
- Developed Kubernetes manifests for application management, including a Deployment with 3 replicas and a Cluster IP service.
- Implemented a rolling update strategy in Kubernetes, ensuring minimal downtime with a maximum of one pod unavailable.
- Designed and implemented an Azure DevOps pipeline, automating AKS deployment and reducing deployment time by 50%, and monitored application health with Azure Monitor.

AWS Data Engineering Pipeline

- Developed an AWS-based data pipeline for batch and stream processing to analyse 30k+ rows of data using AWS Kinesis and Spark Structured Streaming on Databricks.
- Provisioned an API Gateway RESTful API to interface with a Kafka REST proxy, distributing data to 3 Kafka topics on MSK, and used MSK Connect to transfer batch data to an S3 data lake.

CONTACT

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SKILLS

Docker
Terraform
Kubernetes, Helm
Networking
APIs

Python
Linux
Mac OS
SQL
git
Databricks
Kafka
Airflow
Spark
Pandas

AWS
EC2, S3, RDS, MWAA, MSK, Kinesis, CloudFormation, API Gateway, Glue

Azure
DevOps, Monitor, AKS, EntraID, SQL Database

CERTIFICATIONS

- AZ 900 Azure Fundamentals

- Hashicorp Terraform Associate 003 (in progress)

- AWS Certified Solutions Architect Associate (in progress)