### **MZAMO NTSHABA**

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#### PROFESSIONAL SUMMARY

Results-driven Data Engineer with expertise in ETL development, cloud computing, and data automation. Adept at designing and optimizing scalable data pipelines, leveraging tools such as Apache Airflow, Docker, and AWS to enhance operational efficiency. Experienced in data modeling and analytics, transforming raw datasets into actionable insights that support business decision-making. Skilled at collaborating across teams to develop solutions that drive measurable impact.

# **WORK EXPERIENCE**

# Data Engineer Intern Nedbank | Hybrid | Sep 2024 – Present

- Automated Power BI dashboards, improving real-time business intelligence reporting.
- Designed and maintained ETL pipelines using SQL Server Integration Services (SSIS), optimizing data processing and reducing manual workload.
- Implemented data validation processes with Ab Initio, ensuring data integrity across business units.
- Collaborated with cross-functional teams including Finance, Risk, Business
  Transformation and Compliance define KPIs and deliver insights that support
  strategic decision making

## **Data Engineer Learnership**

# Sandtech | Remote | Jan 2024 - Aug 2024

- Developed and optimized ETL workflows for ingesting large-scale structured and unstructured data.
- Built containerized data processing solutions using Docker for seamless deployment.
- Orchestrated data pipelines with Apache Airflow, improving data workflow automation and scalability.
- Wrote optimized SQL queries and stored procedures to enhance database performance and reduce latency.

### **TECHNICAL SKILLS**

- Cloud Technologies: AWS (EC2, S3, Lambda, DynamoDB, API Gateway, CloudFormation)
- Big Data Tools: Apache Spark, Apache Airflow, SSIS, Docker
- Databases: MySQL, PostgreSQL, AWS DynamoDB
- Data Visualization: Power BI, LookerStudio
   DevOps & CI/CD: Docker, Git, Version Control

### **EDUCATION**

Bachelor's Degree in Applied Artificial Intelligence (Scholarship)

IU International University of Applied Sciences, Germany | Nov 2024 - Nov 2027

**NQF5 MICT SETA Accreditation in Data Engineering** 

ExploreAl Academy, South Africa | Jan 2024 - Nov 2024

**NQF5** National Certificate in Software Development

Codespace Academy, South Africa | Jul 2024 - Dec 2024

**NQF4 National Senior Certificate** 

Empangeni High School, South Africa | Jan 2014 - Dec 2018

#### **CERTIFICATIONS**

- Microsoft Certified Azure Data Engineer Associate
- AWS Certified Cloud Practitioner
- ExploreAl Data Engineering Certification
- Hackerrank SQL(Intermediate)
- Hackerrank Python(Basic)

### **KEY DATA ENGINEERING PROJECTS (Learnership)**

- Enterprise ETL Pipeline Development: Engineered a scalable ETL pipeline using Apache Airflow & Docker, processing large datasets and storing structured data in AWS RDS for real-time analytics.
- Cloud-Based Sentiment Analysis: Built and deployed a serverless application using AWS Amplify, Lambda, SNS, and S3, enabling real-time analysis of customer feedback.
- Optimized SQL Database Performance: Designed a normalized database schema, reducing query execution time by 60% using CTEs
- AWS Cloud Infrastructure Automation: Developed CloudFormation templates for automating EC2, VPC, and IAM configurations, streamlining cloud deployments.