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 OTTera Inc | Onsite | Jul 2025 – Present

OTTera is an international white-label OTT (Over-The-Top) platform provider that enables clients around the world to launch, manage, and monetize streaming services across mobile, web, and smart TV platforms.

- Enhanced the functionality of BI dashboards in AWS QuickSight by adding custom metrics that improved data granularity and enabled deeper, more flexible data exploration aligned with evolving business needs..
- Documented key data pipeline workflows, enhancing team knowledge sharing and improving the usability and maintainability of internal systems.
- Developed client analysis reports using **Looker Studio**, presenting actionable insights to stakeholders to support data-driven decision-making
- Integrated **geographical data** into ETL pipelines, to improve regional analytics and audience segmentation.
- Contributed to the company's codebase by enhancing pipeline features, including the addition of critical data fields.
- Participated in the hiring process as part of the technical interview panel for the Technical Support Engineering role.
- Created and optimized **monitoring queries in AWS Redshift**, ensuring high reliability and performance of production data pipelines.

Data Engineer Intern Nedbank | Hybrid | Sep 2024 – 30 Jun 2025

Nedbank is one of Africa's Big Five banks, managing billions in assets and serving millions of customers across the continent. Known for its innovation in digital banking and analytics-driven strategy, working at Nedbank means building solutions at the scale of enterprise-grade finance, under strict performance, security, and compliance standards.

- 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 – 31 Aug 2024

Sand Technologies is a leading enterprise AI and data science company, delivering cloud data solutions to large enterprises and governments across Africa, Europe, Asia, and the Americas. They span critical sectors including utilities, telecoms, healthcare, insurance, and public infrastructure, solving complex, large-scale problems at the intersection of software engineering, AI, IoT, and data analytics

- 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, Redshift, Quicksight)
- Big Data Tools: Apache Spark, Apache Airflow, SSIS, Docker
- Databases: MySQL, AWS DynamoDB
- Data Visualization: Power BI, LookerStudio
 DevOps & CI/CD: Docker, Git, Version Control

EDUCATION

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 Certificatem

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

CERTIFICATIONS

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

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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.