

Data Engineer

CONTRACT - ONE (1) YEAR FIXED TERM CONTRACT

Location: Cape Town (Hybrid)

About the Organisation

Join the Knowledge Translation Unit (KTU), a pioneering research and knowledge synthesis group committed to strengthening health systems through pragmatic research, evidence-based implementation, and the development of practical clinical tools derived from policies and guidelines. Our work supports primary healthcare delivery across South Africa, sub-Saharan Africa, Brazil, and Indonesia. The team ensures that all guidance is evidence-based, contextually relevant, and designed for adaptability across formats and platforms.

As the KTU strengthens its structured knowledge systems and digital capabilities, we are seeking a **Data Engineer** with a specific focus on building and operating scalable data and AI platforms. This role is ideal for a forward-thinking technologist who is passionate about creating robust infrastructure that enables data-driven insights and intelligent systems to function efficiently at scale.

Role Overview

The Data Engineer will be responsible for building, maintaining, and optimising the organisation's data and AI infrastructure. In addition to contributing to digital transformation initiatives, the successful candidate will assist in developing reliable platforms that support data processing, analytics, and machine learning operations.

The role sits at the intersection of data engineering, cloud infrastructure, DevOps, and machine learning operations (MLOps), ensuring that systems are scalable, automated, and production-ready for real-world use.

The successful candidate will work closely with software developer, business analyst and Knowledge Translation teams to:

- Build and maintain data platforms (warehouses, pipelines)
- Develop and optimise large-scale data processing systems
- Build and support AI/ML platforms for model training and deployment
- Implement CI/CD pipelines for data and AI workflows
- Automate infrastructure using Infrastructure as Code (IaC)
- Monitor, troubleshoot, and optimise system performance
- Ensure reliability, scalability, and security of platforms

The position provides hands-on technical implementation and operational support for data and AI systems across the organisation.

Qualifications:

Bachelor's degree in Computer Science, Information Systems, or a related field

Required Skills:

- Proficiency in Python and SQL
- Strong command of data engineering concepts, including ETL/ELT pipelines
- Hands-on experience with cloud platforms such as Amazon Web Services, Microsoft Azure, or Google Cloud
- Practical experience working with big data technologies
- Proficiency in Linux environments and scripting
- Strong understanding of DevOps principles and automation practices
- Proven problem-solving capability with a systems-thinking approach to designing scalable and efficient solutions
- Exceptional attention to detail with a strong, reliability-focused mindset

Experience:

Essential:

- Minimum of 3 years experience in data engineering, platform engineering, or similar roles
- Proven experience building and maintaining data pipelines and platforms
- Experience working with cloud-based infrastructure

Advantageous:

- Experience with containerisation and orchestration tools (Docker, Kubernetes)
- Exposure to MLOps tools and machine learning workflows
- Experience implementing CI/CD pipelines
- Familiarity with real-time data processing systems
- Experience in healthcare, research, or public sector environments

Key Responsibilities:

1. Data Platform Engineering

- Design, build, and maintain scalable data platforms including data lakes, warehouses, and pipelines.
- Develop and optimise systems for processing large volumes of structured and unstructured data.
- Ensure efficient, reliable, and secure data flow across systems.

2. AI/ML Platform Development (MLOps)

- Build and maintain platforms that support machine learning model development, training, and deployment.
- Enable model versioning, monitoring, and lifecycle management.
- Support integration of AI models into production environments through APIs and services.

3. Cloud and Infrastructure Engineering

- Develop and manage cloud-based infrastructure using platforms such as AWS, Azure, or Google Cloud.
- Implement Infrastructure as Code (IaC) for scalable and repeatable deployments.
- Evaluate and implement appropriate tools and technologies for platform development.

4. Automation and DevOps

- Develop and maintain CI/CD pipelines for data and AI systems.
- Automate workflows to improve efficiency, consistency, and scalability.
- Implement monitoring, logging, and alerting systems to ensure operational visibility.

5. Performance, Reliability, and Support

- Ensure systems are highly available, scalable, and capable of handling large-scale data and real-time processing.
- Identify and resolve performance bottlenecks and system failures.
- Provide ongoing maintenance and optimisation of platforms to ensure stability and efficiency.

6. Systems Implementation and Collaboration

- Work closely with developers, data scientists, and Knowledge Translation teams to support platform needs.
- Provide technical input into system design and implementation decisions.
- Continuously identify opportunities to improve platform performance, scalability, and usability.

How to Apply

Email your application to KTU-HR@uct.ac.za with the subject line: **Data Engineer June 2026 –**

Closing Date: 30 June 2026

Attach:

- CV
- Motivation letter
- Certified copy of highest qualification
- Contact details for **two or three** current, contactable referees

Important Notes

- Incomplete applications will not be considered.
- Only applicants who have completed all application requirements will be considered.
- KTU is committed to employment equity and strives to appoint candidates in line with its equity objectives.
- The organisation reserves the right not to make an appointment should no suitable candidate be identified.
- Only shortlisted candidates will be contacted

Our Vision

To improve the quality of primary healthcare for underserved communities through pragmatic research, evidence-based implementation, evaluation, and engagement of health systems, their planners, providers, and communities.

For more information about the organisation, visit: www.knowledgetranslation.co.za