HR191	**POSITION DESCRIPTION**	UNIVERSITY OF CAPE TOWN IYUNIVESITHI YASEKAPA • UNIVERSITEIT VAN KAAPSTAD

NOTES

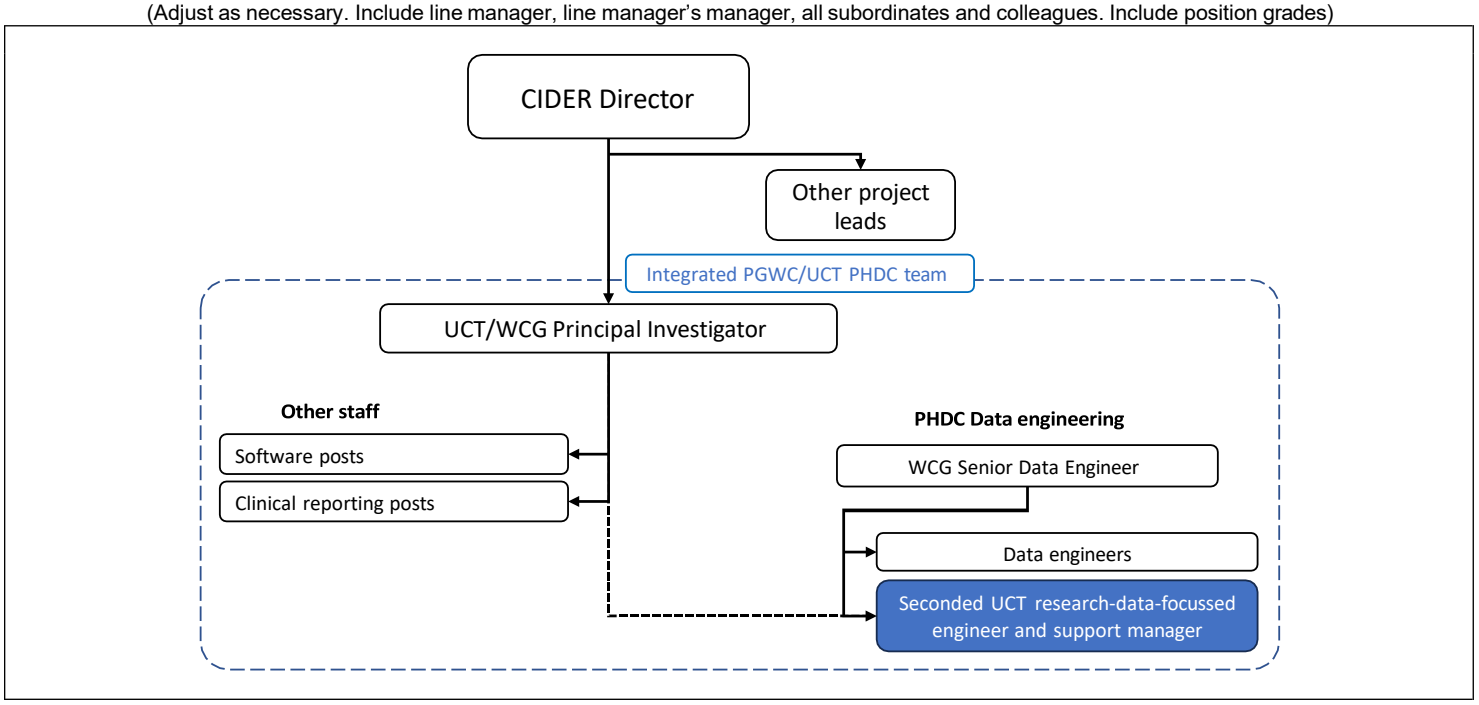
- Forms must be downloaded from the UCT website: https://forms.uct.ac.za/forms.htm
- This form serves as a template for the writing of position descriptions.
- A copy of this form is kept by the line manager and the position holder.

POSITION DETAILS

Position title	Data Scientist		
Job title (HR Business Partner to provide)	Data Scientist		
Position grade (if known)	10	Date last graded (if known)	
Academic faculty / PASS department	Health Sciences		
Academic department / PASS unit	School of Public Health		
Division / section	Centre for Integrated Data and Epidemiological Research (CIDER)		
Date of compilation	2026/07		

ORGANOGRAM

(Adjust as necessary. Include line manager, line manager's manager, all subordinates and colleagues. Include position grades)



PURPOSE

This role supports and maintains the Secure Data Environment (SDE) within the Databricks platform, while maintaining and enhancing an existing Flask-based application using Python, HTML, JavaScript, and CSS. It focuses on SDE platform development, pipeline support, governance, application maintenance, user engagement with researchers and analysts, and the ongoing update of SDE training materials and documentation. The role helps ensure that the SDE and Workbench application remain secure, stable, user-friendly, compliant, and aligned with evolving governance and operational requirements. The role will help support faculty and students participating in the HPI-UCT Partnership for Digital Health.

CONTENT

Key performance areas		% of time spent	Inputs (Responsibilities / activities / processes/ methods used)	Outputs (Expected results)
1	Secure Data Environment (SDE) Platform Support	25%	• Maintain secure **data pipelines** within Databricks. • Ensure that these pipelines meet **scalability, performance and security requirements**. • Monitor audit logs and assist with **security incident investigation**. • **Troubleshoot** pipeline and environment-related issues. • **Maintain** encryption, access controls, and environment isolation **standards**. • **Document** SDE configurations and security controls.	• Stable and secure SDE platform. • Controlled and auditable access. • Reduced security risks through consistent enforcement of policies and implementation of guardrails. • Accurate and up-to-date platform documentation. • Structured feedback incorporated into development cycles.
2	Workbench Application Maintenance & Enhancement (Flask)	35%	• **Maintain** and support a Flask-based **Workbench Application**. • Troubleshoot and resolve application **bugs and performance issues**. • Implement minor **feature enhancements** and usability improvements. • Incorporate structured user feedback into **iterative improvements**. • Update HTML templates and CSS styling as required to **improve usability**. • Ensure **secure and best practice coding standards** are followed for all enhancements. • Support **version control** and deployment processes. • Maintain **technical documentation** of application updates and changes.	• Stable, secure, and well-maintained Workbench Application. • Improved user experience through responsive updates. • Reduced recurring support issues. • Controlled and traceable application changes. • Up-to-date documentation reflecting system updates.

3	Technical User Support & Onboarding	20%	• Support **onboarding sessions** for researcher and analysts, as well as knowledge-sharing initiatives. • Provide first-line **support** for SDE and Workbench **users**. • System **access management** processes and **governance** requirements. • Gather, track, implement and prioritise **user feedback**.	• Reduced onboarding time for new SDE users. • Timely resolution of incidents and support tickets. • Responsive and professional user support. • Improved stakeholder satisfaction and adoption.
4	Training Library & Documentation Management	20%	• Maintain and update the SDE **training library** (user guides, onboarding materials, SOPs). • Incorporate frequently asked questions and recurring issues into training material. • Ensure documentation aligns with governance and compliance standards.	• Accurate, accessible, and up-to-date training materials. • Decreased repetitive support queries. • Clear alignment between documentation and system functionality.

MINIMUM REQUIREMENTS

Minimum qualifications	A Bachelor's degree in computer science, data science, software development, engineering or another related field. Further education would be beneficial - Honours degree would be advantage
Minimum experience (type and years)	• Minimum 4 years' experience in data engineering, data architecture or a related field. • Supporting data pipelines in Databricks or similar platforms. • Developing and/or maintaining web applications. Advantageous: • Experience in health information systems and health data. • Experience with analytical programming languages such as STATA, R or Scala. • Research experience and/or master's level postgraduate studies
Skills	• Strong written and verbal communication. • Respectful, works well in a team. • Python (data engineering and Flask) • Apache Spark fundamentals • Secure coding and access control principles
Knowledge	R4: • Python • Apache Spark • Data security and privacy • CI/CD fundamentals R3: • Cloud platform experience • SQL • HTML, JavaScript and CSS • Monitoring and audit logging
Professional registration or license requirements	N/A
Other requirements (If the position requires the handling of cash or finances, other requirements must include 'Ability to handle cash or finances'.)	The position requires a high level of integrity and honesty as the employee will be working with confidential patient-level data that includes sensitive personal data.

Competencies (Refer to UCT Competency Framework)

Competence	Level	Competence	Level
Core: Analytical thinking and problem solving	3	Enabling: Quality commitment and work standards	3
The ability to work in a fast-changing environment and make appropriate adaptive changes to existing plans Core: Teamwork and collaboration	3		

SCOPE OF RESPONSIBILITY

Functions responsible for	Maintenance and support of the SDE, including the workbench application. Updating and maintaining the SDE training library, and user support with onboarding and troubleshooting.
Amount and kind of supervision received	Moderate technical supervision. Periodic check-ins with other data engineers. Expected to work and self-learn, coming to manager when requiring advice or in need of direction regarding work priorities and technology application.
Amount and kind of supervision exercised	No formal line management responsibilities.
Decisions which can be made	Routine bug fixes and enhancements, documentation updates, standard troubleshooting and support resolutions, UI/UX improvements.
Decisions which must be referred	Strategic direction, compliance, regulatory and security issues, high-level architecture changes or redesign and interpersonal conflict resolution.

CONTACTS AND RELATIONSHIPS

Internal to UCT	
External to UCT	

OPERATIONAL FLEXIBILITY

Work Location (✓ tick appropriate box and provide detail in space below) (Refer to UCT Flexible Work Approach Guideline		Onsite	✓	Hybrid		Remote
Work Schedule (✓ tick appropriate box and provide detail in space below) (Refer to UCT Flexible Work Approach Guideline		Structured	✓	Semi-Structured		Unstructured