

POSITION DESCRIPTION

Analytics Engineer

Reports to:	Data Platform Lead
Division:	Information Technology Services
Tenure:	Permanent
Location:	Hamilton
Date:	October 2026

Vision

Ko te tangata

A research-intensive university providing a globally connected, innovative and inclusive student experience in an environment characterised by a commitment to diversity, respect for Indigenous knowledge, and high levels of community engagement.

Values

Ko te mana o Te Whare Wānanga o Waikato ka herea ki tō tātou:

- Tū ngātahi me te Māori
- Mahi pono
- Whakanui i ngā huarahi hou
- Whakarewa i te hiringa i te mahara

The University of Waikato places a high value on:

- Partnership with Māori
- Acting with integrity
- Celebrating diversity
- Promoting creativity

1. GENERAL

Our University's digital vision is "Digital connects us and moves us forward."

Information Technology Services (ITS) leads digital direction, manages and protects the digital ecosystem, supports digital initiatives and delivers digital services that ensure the University can teach, research and operate successfully in a secure, resilient, connected, sustainable and future-ready digital environment.

ITS is part of the Corporate Services Group within the portfolio of the Chief Operating Officer.

2. POSITION PURPOSE

The Analytics Engineer is responsible for turning the University's source data into trusted, well-modelled, business-ready datasets on the enterprise data platform (Databricks). The role sits between data engineering and data analysis. It owns the transformation of ingested data into the University's canonical data model, aligned to endorsed sector data standards, and from there into the Gold data layer that enterprise reporting, analytics and AI capability depend on.

The role combines modelling craft with business analysis. The Analytics Engineer works with stakeholders across the University's academic, research and operational areas. They understand and capture reporting and insight requirements and agree the definitions of entities, measures and business terms. They then express these as a conformed canonical model, dimensional models and a governed semantic layer. Alongside the semantic layer they build the business context that natural-language and AI tools depend on to interpret data correctly. Each concept is defined once and reused by every consumption tool, from Power BI to Databricks-native dashboards and natural-language analytics, rather than rebuilt for each report.

The position plays a central part in the migration away from the legacy on-premises data warehouse. It rebuilds enterprise reporting on the modern data platform so that the result is consistent, tested, documented and aligned with the University's data governance expectations.

All delivery must align with the platform standards, patterns and roadmap owned by the Data Platform function.

3. FUNCTIONAL RELATIONSHIPS

Internal: Head of Infrastructure
Enterprise Architect
ITS Data Engineering positions
Security and Risk / Assurance positions
Planning, Performance and Analytics (PPA) team
HR, Finance, Marketing teams
VC Office functions for recruitment and institutional performance
DVC Academic,
DVC Research portfolios
Digital Governance and Steering Groups
Information Management leads

External: Databricks and related partners
Sector peers for benchmarking and shared learning.

4. KEY RESPONSIBILITIES

Requirements and Business Analysis

- Work with stakeholders across the University to understand, capture and document reporting and insight requirements.
- Facilitate agreement on the definitions of entities, measures and business terms, and resolve conflicting definitions between areas.
- Translate agreed requirements into data models and source-to-target mappings.
- Take part in project scoping and advise on the data implications of new reporting and insight needs.

Canonical and Dimensional Modelling

- Design and build transformations that conform source data into the University's canonical data model, aligned to endorsed sector data standards.
- Design and build Gold-layer dimensional models and subject-area data marts (facts, dimensions and conformed dimensions) from the canonical model.
- Build models that are reusable across subject areas, following endorsed modelling patterns, to reduce duplication and technical debt over time.
- Produce and maintain modelling documentation for technical and business audiences.

Semantic Layer and Business Context

- Develop and maintain the governed semantic layer, so key institutional measures are defined once and used consistently across all consumption tools.
- Curate the business context that sits alongside the semantic layer, such as descriptions, definitions, instructions and example questions, so natural-language analytics and AI tools return accurate, trustworthy answers.
- Keep the semantic layer and business context current as models, definitions and business needs change.

Consumption and Self-Service Enablement

- Apply the endorsed standards for how consumption tools connect to the platform, including Power BI, Databricks AI/BI dashboards and natural-language analytics (Genie), and contribute consumption-side insight to their development.
- Work with analysts and report developers to make sure datasets meet their needs and are used as intended.
- Support self-service use of the platform by making trusted datasets easy to find, understand and use.

Engineering Practice and Quality

- Build transformations with the platform's endorsed tooling and patterns, including testing, documentation and version control.
- Work with Data Engineers on the handover between ingested data and the canonical model.
- Take part in peer review and the code promotion process between environments.
- Undertake support and development work arising from incidents and change requests.

AI-Assisted and Agentic Delivery

- Use and build AI-assisted and agentic workflows to speed up modelling, transformation, testing and documentation, within the University's AI and data governance controls.
- Develop reusable agentic workflows and prompts and contribute them to the team's shared practice to improve delivery speed and consistency.
- Evaluate AI-generated outputs critically and take accountability for the quality of everything delivered.

Migration from Legacy Data Warehouse

- Contribute to the structured migration of reports and datasets from the legacy on-premises data warehouse.
- Analyse existing legacy reporting logic and rebuild it on the platform to current standards, rather than replicating it as is.
- Support reconciliation between legacy and migrated outputs so stakeholders can trust the results.

Data Governance and AI Data Exposure

- Support data quality, lineage and classification so datasets are safe to expose to reporting, self-service and AI tools.
- Apply data classification and work within access controls, in line with platform standards and the University's data governance expectations.
- Identify and escalate risks and non-compliant designs early, through the appropriate channels.

Team Contribution

- Work effectively as a member of the ITS Team to support other team members and provide support and/or coverage of functions.
- Work collaboratively to encourage transparency across activities, open sharing of knowledge, and the building of positive relationships to support a high-performance culture.
- Work with other team members on projects.
- Support a positive culture and morale.
- Comply with and undertake responsibilities set out in the University's Health and Safety Policy

Continuous Improvement

- Actively contribute to the ongoing development and improvement of modern data systems and processes, including the continuous improvement plan for the platform.
- Use feedback, usage patterns and data quality findings from consumers to improve models, the semantic layer and business context, including the accuracy of natural-language and AI answers.
- Keep up to date with emerging practice in analytics engineering, semantic modelling and AI-enabled analytics, and share it with the team.

NOTE: Staff have an annual Objectives, Development and Reflection (ODR) meeting with their manager.

5. PERFORMANCE STANDARDS

The Analytics Engineer will be performing satisfactorily when:

- Reporting and insight requirements are understood, documented and agreed with stakeholders before build begins.
- Key institutional measures and business terms have a single agreed definition, used consistently across all consumption tools.
- Canonical and Gold-layer models conform to endorsed standards and patterns, and move through peer review and promotion without significant rework.
- Datasets are tested, documented and easy to find, with lineage and classification in place.
- Natural-language analytics and AI tools return accurate, trustworthy answers, supported by well-maintained business context.
- Reports and datasets migrated from the legacy data warehouse reconcile with their legacy equivalents and are adopted by stakeholders.
- Stakeholders express confidence in the accuracy and usefulness of the data they rely on.
- AI-assisted and agentic practices are adopted in day-to-day delivery and shared with the team, within endorsed governance controls.
- Knowledge and good practice are shared openly, lifting modelling capability across the team.
- Interactions in the course of performing duties are conducted professionally, respectfully and collaboratively.
- Valuable contribution and participation in relevant meetings and/or projects are provided.
- Advice provided complies with professional standards, University policies and procedures and supports the University's strategic objectives.
- Safe and healthy work practices are followed that comply with University policies and procedures, relevant work standards and statutory obligations.

PERSON SPECIFICATION

EDUCATIONAL QUALIFICATIONS

Essential

- Bachelor's degree in information technology, computer science, analytics, statistics, business or a related field, or equivalent experience.
- Relevant industry experience (3 to 5 years) in analytics engineering, business intelligence, data modelling, business analysis or a related data role.

Desirable

- Industry certification in data or analytics, e.g. Databricks Certified Data Analyst or Data Engineer Associate, Microsoft Power BI Data Analyst (PL-300), or equivalent.

SKILLS, KNOWLEDGE and EXPERIENCE

Essential

- Strong SQL skills, including writing, testing and optimising transformation logic.
- Solid understanding of dimensional data modelling (facts, dimensions, star schemas) and experience building data models used for reporting.
- Experience building semantic models or governed measures in a BI or analytics tool such as Power BI.
- Demonstrated experience working with business stakeholders to understand and capture requirements and agree data definitions.
- Ability to communicate data concepts clearly to both technical and non-technical audiences.
- Experience applying DataOps practices, such as version control and the structured promotion of code between environments.
- Demonstrated openness to, and practical use of, AI-assisted development tools.
- Commitment to equal opportunity and to the University's partnership with Māori as intended by the Treaty of Waitangi. Demonstrated awareness of Māori and Pacific cultures.

Preferred

- Experience with Databricks or another modern cloud data platform (e.g. Microsoft Fabric, Snowflake), and with Medallion or layered data architecture.
- Familiarity with Python, e.g. for notebook-based analysis or automation.
- Experience designing or building agentic workflows for data or analytics delivery, and exposure to natural-language analytics or AI-enabled BI tools (e.g. Databricks Genie, Snowflake Cortex).
- Experience with data testing, data quality and governance practice, including metadata and data classification.
- Experience in higher education or a similar multi-stakeholder environment.

PERSONAL QUALITIES

- Curious and experimental, with the judgement to adopt new ways of working safely.
- Analytical and detail-focused, able to work through ambiguity to reach clear, agreed definitions and accurate, well-tested work.
- Takes ownership and works independently, while collaborating openly, sharing knowledge and welcoming feedback.
- Consultative, inclusive and adaptable, able to engage with a diverse range of stakeholders at all levels of the organisation.

October 2026