# Position Description

## Data Scientist

| Classification: | HS5 – HS33 |
|---|---|
| Business unit/department: | Business Intelligence Unit |
| Work location: | Austin Hospital  ☒   Heidelberg Repatriation Hospital  ☐<br>Royal Talbot Rehabilitation Centre   ☐Other   ☐ (please specify) |
| Agreement: | Victorian Public Health Sector (Health and Allied Services, Managers and Administrative Officers) (Single Interest Employers) Enterprise Agreement<br>2021-2025 |
| Employment type: | Fixed-Term Full-Time |
| Hours per week: | 38 (12 month contract) |
| Reports to: | Manager, Data Science |
| Direct reports: | N/A |
| Financial management: | Budget: N/A |
| Date: | August 2025 |

## Position purpose

This role is jointly funded by the Northeast Melbourne Health Service Partnership and the Eastern Melbourne Public Health Network.  The goal is to deliver a predictive algorithm and dashboard for expected wait times on relevant Specialist clinic waiting lists.

## About the Directorate/Division/Department

The Business Intelligence Unit is responsible for leveraging data to provide valuable insights that support decision- making, improve operational efficiency, and enhance patient care. The functions of the unit include:

Data integration: Collecting and integrating data from various sources within the hospital, such as electronic health records (EHR) and administrative databases, into a data warehouse. This ensures a comprehensive and unified view of the hospital's operations.

Data analysis and reporting: Analysing healthcare data to generate reports, dashboards, and visualizations. These tools help hospital administrators and clinicians, gain a deeper understanding of key performance indicators (KPIs) related to patient outcomes, resource utilization, and financial performance.

The Business Intelligence Unit has five teams:

1. Data services: Manage the data warehouse and data pipelines.
2. Data Analytics & Reporting: Delivers comprehensive analytical and reporting services across various areas of Austin Health, provides actionable insights and robust reporting solutions to support operational needs.
3. Performance reporting: A second reporting team focussed on whole-of-hospital reporting such as NWAU activity-based reports and monthly board reporting.
4. Data Science: Delivers advanced predictive analytics and research support.
5. Clinical costing: Manages clinical costing data for financial reporting.

## Position responsibilities

**Role Specific:**

- Design and conduct statistical analyses to model the outpatient waiting times.
- Build, test and deploy predictive models with support from a data engineer.
- Work closely with a data engineer to develop and implement advanced predictive models into data pipelines.
- Develop dashboards or reports to visually display the predictions.
- Analyse large-scale healthcare datasets to identify trends, improve patient outcomes, and enhance hospital processes.
- Ensure compliance with hospital policies and regulatory standards regarding data privacy, security, and governance.
- Attend to ad hoc data, reporting & analytical requests.

**Collaboration and communication**

- Partner with clinicians, hospital administrators, and researchers to understand data needs and deliver actionable insights.
- Translate complex data findings into clear, meaningful reports and visualizations for non-technical stakeholders.
- Supported by the senior data scientist, provide training and mentorship to analysts, and healthcare professionals on data-driven decision-making.
- Develop a collaborative and trusted relationship with managers, clinical staff and administrative staff across the organization.
- Work with a data engineer by specifying technical requirements as needed.
- Engage actively in meetings, working groups, and improvement programs as necessary.

**Other**

- Other duties as required.

## Selection criteria

**Essential skills and experience:**

- Advanced statistical and modelling techniques – Strong skills in predictive modelling, clustering, natural language processing (NLP), machine learning, and time-series analysis.
- Programming & scripting – Expertise in Python and R, with experience using libraries such as TensorFlow,

PyTorch, Scikit-learn, Pandas, and NumPy.
- Data engineering and management – Experience with SQL, ELT processes, and working with large-scale structured and unstructured data.
- Data visualization and communication – Ability to create clear, meaningful dashboards using tools like Power BI, Matplotlib, or Seaborn.

**Soft skills**
- Ability to identify business challenges, frame them as data problems, and implement effective solutions.
- Strong ability to translate complex data insights into actionable recommendations for clinicians, administrators, and executives.
- Experience working with diverse teams, including healthcare professionals, IT, and researchers.
- Experience managing multiple priorities and working in a fast-paced hospital environment.
- Ability to work independently and within a team environment.

**Desirable but not essential:**
- Familiarity with Microsoft Azure/Fabric/data bricks and big data frameworks such as Spark
- Healthcare-specific knowledge – Familiarity with outpatient clinical workflows, medical terminologies (ICD- 10), and patient outcome measurement frameworks.
- Electronic Medical Records (EMR) & Healthcare Data Standards – knowledge of EMR systems like Cerner.
- Experience applying data science techniques to and extracting data insights from healthcare domain data.

## Professional qualifications and registration requirements

- Tertiary qualifications and/or extensive experience in an appropriate data science field.

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Together
we achieve

We shape
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## Quality, safety and risk – all roles

All Austin Health employees are required to:

- Maintain a safe working environment for yourself, colleagues and members of the public by following organisational safety, quality and risk policies and guidelines.
- Escalate concerns regarding safety, quality and risk to the appropriate staff member, if unable to rectify yourself.
- Promote and participate in the evaluation and continuous improvement processes.
- Comply with the principles of person-centered care.
- Comply with requirements of National Safety and Quality Health Service Standards and other relevant regulatory requirements.

## Other conditions – all roles

All Austin Health employees are required to:

- Adhere to Austin Health's core values: *our actions show we care, we bring our best, together we achieve, and we shape the future.*
- Comply with the Austin Health's Code of Conduct policy, as well as all other policies and procedures (as amended from time to time).
- Comply with all Austin Health mandatory training and continuing professional development requirements.
- Provide proof of immunity to nominated vaccine preventable diseases in accordance with Austin Health's immunisation screening policy.
- Work across multiple sites as per work requirements and/or directed by management.

## General information

### Cultural safety
Austin Health is committed to cultural safety and health equity for Aboriginal and/or Torres Strait Islander People. We recognise cultural safety as the positive recognition and celebration of cultures. It is more than just the absence of racism or discrimination, and more than cultural awareness and cultural sensitivity. It empowers people and enables them to contribute and feel safe to be themselves.

### Equal Opportunity Employer
We celebrate, value, and include people of all backgrounds, genders, identities, cultures, bodies, and abilities. We welcome and support applications from talented people identifying as Aboriginal and/or Torres Strait Islander, people with disability, neurodiverse people, LGBTQIA+ and people of all ages and cultures.

### Austin Health is a child safe environment
We are committed to the safety and wellbeing of children and young people. We want children to be safe, happy and empowered. Austin Health has zero tolerance for any form of child abuse and commits to protect children. We take allegations of abuse and neglect seriously and will make every effort to mitigate and respond to risk in line with hospital policy and procedures.



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