



## POSITION DESCRIPTION

Centre for Digital Transformation of Health  
Faculty of Medicine, Dentistry and Health Sciences

# Program Manager- Health Informatics and Data Science

<b>POSITION NO</b>	0055886
<b>CLASSIFICATION</b>	Academic Specialist Level B
<b>SALARY</b>	\$107,547 - \$127,707 p.a.
<b>SUPERANNUATION</b>	Employer contribution of 17%
<b>WORKING HOURS</b>	Full-time
<b>BASIS OF EMPLOYMENT</b>	Fixed-term until 31/12/2024
<b>OTHER BENEFITS</b>	<a href="http://about.unimelb.edu.au/careers/working/benefits">http://about.unimelb.edu.au/careers/working/benefits</a>
<b>HOW TO APPLY</b>	Online applications are preferred. Go to <a href="http://about.unimelb.edu.au/careers">http://about.unimelb.edu.au/careers</a> , select the relevant option ('Current Staff' or 'Prospective Staff'), then find the position by title or number.
<b>CONTACT FOR ENQUIRIES ONLY</b>	Dr Daniel Capurro or Dr Douglas Pires Email <a href="mailto:dcapurro@unimelb.edu.au">dcapurro@unimelb.edu.au</a> or <a href="mailto:douglas.pires@unimelb.edu.au">douglas.pires@unimelb.edu.au</a> <i>Please do not send your application to this contact</i>

For information about working for the University of Melbourne, visit our website:  
[about.unimelb.edu.au/careers](http://about.unimelb.edu.au/careers)

## ***Position Summary***

The Program Manager (Health Informatics and Data Science) will be a key member of the Centre for Digital Transformation of Health's (DT4H) team that aims to make better use of routinely collected clinical data for research and to inform clinical practice improvement. Guided by a Committee co-convened by the Melbourne Academic Centre for Health (MACH) and DT4H, with representation from University-affiliated hospitals and the Department of General Practice's primary care research network, this program of work aims to coordinate building capacity in the ecosystem of people, projects and systems that is required if the volume of data collected during routine healthcare is to be used to benefit patients.

The appointee will work with relevant stakeholders to co-ordinate and assist in development and piloting of agreed processes and infrastructure for sharing and accessing routinely collected clinical data. In addition, the appointee will work with healthcare professionals to develop clinical problems into data-driven research ideas and concepts, then protocols including data access and management plans, and data analysis plans. They will ensure research quality and efficiency through understanding project feasibility with routinely collected data, enabling use of best practice data sharing, management and security, supporting data standards and quality, and guiding analysis plans that yield reproducible results and rigorous interpretation of data, with the goal that projects are more likely to generate robust preliminary results and therefore to be funded and have significant impact on clinical practice and the healthcare system. Where appropriate, they will co-ordinate with the Melbourne Data Analytics Platform (MDAP), and Melbourne Research Computing, to bring the required expertise to projects. They will also organise and participate on educational workshops, courses and datathons/hackathons that aim to build capacity in data sciences in the healthcare sector.

The ideal candidate will be a data scientist with significant experience working with routinely collected clinical data who is looking to transition from a research or analytical role to a research development, leadership and enabling role. They should enjoy working with multi-disciplinary research teams and facilitating high quality research and have a commitment to the highest standards of research ethics and rigour. The successful candidate will be a detail-oriented problem solver with the personal attributes and organisational skills to work with multiple stakeholders across organisations and disciplines to grow the quality and impact of data-driven clinical and health services research.

The Centre for Digital Transformation of Health seeks to realise its vision of connected health through bringing together researchers, educators, healthcare and digital health professionals, patients and the public, where the relationship between clinician and patient is guided by clinical data and enabled by digital health technologies. It aims to significantly grow the field of digital health research at the University of Melbourne through creating the right environment for the type of inter-disciplinary, collaborative research that correlates with research excellence and impact to flourish.

## ***1. Key Responsibilities***

### **1.1 RESEARCH AND RESEARCH TRAINING**

- Working closely with the Centre's experts in data governance and law and the MACH/DT4H Committee, drive the development, piloting, evaluation and eventual operationalisation of processes and infrastructure for sharing routinely collected clinical data across organisations including MACH-affiliated hospitals.
- Working with team members and partners with analytical, data infrastructure, computing, education and stakeholder engagement expertise, plan and develop innovative forums (such as concept development workshops and datathons/hackatons) and mentoring

schemes that enable healthcare professionals to undertake high quality research and improvement projects using routinely collected clinical data.

- Drawing on a deep understanding of routinely-collected clinical, administrative and costing health data, assist researchers who have clinical need-driven research ideas to develop their questions to be feasible and answerable
- Draw on data science methodological expertise to assist clinicians and researchers to develop an analysis plan using the most appropriate analytical methods, and to interpret their analyses taking into account uncertainties in the data.
- Work with the Melbourne Data Analytics Platform (MDAP) to develop and implement idea and concept development pathways so that applicants for MDAP support have projects that are sufficiently mature to benefit from MDAP analysts' expertise and input
- Mentor participants in the Learning Healthcare System Academy- the Centre's flagship professional development program for clinicians- to develop and refine their data-driven research projects focussed on using routinely collected clinical data to detect and measure unwarranted variation in care.
- Evaluate the effectiveness of forums and mentoring in increasing funding for and improving the quality and impact of data-driven improvement research
- Conduct research aligned with the DT4H Health Informatics and Data Science workstream goals as required
- Contribute to the scholarship on research development as applied to data-driven research
- Contribute to teaching, training, mentoring and supervision of students and /or junior staff
- Maintain accurate and detailed records of all work
- Assist with the preparation of manuscripts for publication
- Present results at local, national and international forums
- Contribute to applications for funding opportunities through grants, philanthropy or industry opportunities
- In addition to the Program Manager role, the appointee will also act as the convenor for the joint MACH and DT4H Data-driven Healthcare Improvement Committee. This involves:
  - working with the Committee Chairs and key personnel involved in the Health Informatics and Data Science portfolio of work to identify issues for which advice and recommendations by the representative Committee will move the work forwards
  - working with the Chairs and the Senior Lead, Strategy and Engagement to identify how to best bring these issues to the Committee for constructive discussion and collective decision-making, leading to evidence-based recommendations to Centre Executive Committee
  - organising meetings (face to face, virtual and alternative formats including by email circular or Delphi consultation where appropriate), including agenda and papers
  - recording meeting outcomes, decisions and actions in an agreed format to facilitate monitoring of progress by the Centre Executive Committee and streamlined financial and reporting operations for the Centre

## 1.2 SERVICE AND LEADERSHIP

- Attend and contribute to team meetings
- Attend and actively participate in Centre seminars and staff meetings
- Contribute to Expert Groups as required to further the program of work

- Assist and support operational team members responsible for governance, budget oversight and financial reporting for the Validitron program of work
- Occupational Health and Safety (OH&S) and Environmental Health and Safety (EH&S) responsibilities as outlined in section 4.

## ***2. Selection Criteria***

### **2.1 ESSENTIAL**

- A PhD in a relevant discipline such as data science, biostatistics, epidemiology, health economics, health informatics, or equivalent relevant experience
- Demonstrated expertise in state-of-the-art data science methodologies
- Significant experience working with health and clinical data
- Background in the health and medical research or healthcare sectors
- The ability to work with academic and clinical colleagues in a multi-disciplinary team environment
- Demonstrated excellent organisational skills including the ability to drive programs of work and build and maintain momentum with diverse stakeholders
- Demonstrated excellent verbal and written communication skills for effective research collaboration and engagement
- Demonstrated experience in using initiative, working with minimal supervision and ability to prioritise tasks to achieve objectives within timelines
- Strong skills and initiative in problem solving
- Demonstrated ability to work as a member of a research team and to communicate effectively with academic, clinical and operational team members

### **2.2 DESIRABLE**

- Experience in research development in a relevant field
- Demonstrated understanding of academic standards and skills in evaluation of the quality of research development programs
- Research experience and a publication track record in measuring outcomes and efficiency of models of care
- Experience working with expert committees

## ***3. Equal Opportunity, Diversity and Inclusion***

The University is an equal opportunity employer and is committed to providing a workplace free from all forms of unlawful discrimination, harassment, bullying, vilification and victimisation. The University makes decisions on employment, promotion and reward on the basis of merit.

The University is committed to all aspects of equal opportunity, diversity and inclusion in the workplace and to providing all staff, students, contractors, honorary appointees, volunteers and visitors with a safe, respectful and rewarding environment free from all forms of unlawful discrimination, harassment, vilification and victimisation. This commitment is set

out in the University's People Strategy 2015-2020 and policies that address diversity and inclusion, equal employment opportunity, discrimination, sexual harassment, bullying and appropriate workplace behaviour. All staff are required to comply with all University policies.

The University values diversity because we recognise that the differences in our people's age, race, ethnicity, culture, gender, nationality, sexual orientation, physical ability and background bring richness to our work environment. Consequently, the People Strategy sets out the strategic aim to drive diversity and inclusion across the University to create an environment where the compounding benefits of a diverse workforce are recognised as vital in our continuous desire to service for excellence and reach the targets of Growing Esteem.

## **4. Occupational Health and Safety (OHS)**

All staff are required to take reasonable care for their own health and safety and that of other personnel who may be affected by their conduct.

OHS responsibilities applicable to positions are published at:

<http://safety.unimelb.edu.au/topics/responsibilities/>

These include general staff responsibilities and those additional responsibilities that apply for Managers and Supervisors and other Personnel.

## **5. Other Information**

### **5.1 CENTRE FOR DIGITAL TRANSFORMATION OF HEALTH**

The Centre for Digital Transformation of Health is a cross-disciplinary centre that sits in the Faculty of Medicine, Dentistry and Health Sciences, and the School of Computing and Information Systems.

With a vision of connected healthcare, the Centre aims to address a critical gap in the translation of digital health research, which is clearly needed if the healthcare system is to benefit from research-led advances in digital health. The Centre aims to significantly grow the field of digital health research at the University of Melbourne through creating the right environment for the type of inter-disciplinary, collaborative research that correlates with research excellence and impact to flourish. Through bringing together researchers, educators, healthcare and digital health professionals, patients and the public, the focus on translation of digital health innovations into clinical practice will enable a future where the healthcare system is transformed through digital health innovation

The Centre's strategy is underpinned by connecting the strengths in health and medical research in the Faculty of Medicine, Dentistry and Health Sciences, to the strengths in informatics, computing and data science in the School of Computing and Information Systems and across the University to create a collaborative, inter-disciplinary ecosystem that supports translation to real-world research impact in the healthcare system. Its three strategic pillars are focussed on better use of health data, integrating digital health innovations into the healthcare system and upskilling the healthcare workforce.

## 5.2 FACULTY OF MEDICINE, DENTISTRY AND HEALTH SCIENCES

[www.mdhs.unimelb.edu.au](http://www.mdhs.unimelb.edu.au)

The Faculty of Medicine, Dentistry & Health Sciences has an enviable research record and is the University of Melbourne's largest faculty in terms of management of financial resources, employment of academic and professional staff, teaching of undergraduate and postgraduate (including research higher degree) students and the conduct of basic and applied research. The Faculty's annual revenue is \$628m with approximately 55% of this income related to research activities.

The Faculty has a student teaching load in excess of 8,500 equivalent full-time students including more than 1,300 research higher degree students. The Faculty has approximately 2,195 staff comprising 642 professional staff and 1,553 research and teaching staff.

The Faculty has appointed Australia's first Associate Dean (Indigenous Development) to lead the development and implementation of the Faculty's Reconciliation Action Plan (RAP), which will be aligned with the broader University – wide plan. To enable the Faculty to improve its Indigenous expertise knowledge base, the Faculty's RAP will address Indigenous employment, Indigenous student recruitment and retention, Indigenous cultural recognition and building partnerships with the Indigenous community as key areas of development.

## 5.3 SCHOOL OF COMPUTING AND INFORMATION SYSTEMS

<https://cis.unimelb.edu.au/#about>

The School of Computing and Information Systems (CIS) at the University of Melbourne is an international leader in information technology research and teaching.

CIS is one of the highest-profile schools in the country, regularly ranked top in Australia for Computer Science (2020 THE and QS). It is one of only two Australian divisions to be ranked "5 – Well above world standard" in both *Information and Computing Sciences* (FOR 08) and *Information Systems* (FOR 0806). CIS is at the forefront of computing research in Australia and overseas, with close links to major initiatives such as Melbourne Bioinformatics, IBM Research and CSIRO/DATA61 (formerly NICTA).

The School is committed to attracting and retaining the highest-quality staff available in order to produce outstanding and impactful research. CIS has highly successful research teams in the key areas of Computer Science (CS), Artificial Intelligence (AI), Human-Computer Interaction (HCI) and Information Systems (IS).

CIS provides majors in the three-year undergraduate 'Melbourne Model' degrees and has a range of specialist graduate programs in CS (including software engineering), AI, HCI and IS. It also has a large cohort of active graduate research students, both domestic and international, who are regularly publishing in top venues and engaging with the community.

In late 2020 CIS will move to a new home, Melbourne Connect, Melbourne's newest innovation precinct. Through the co-location of talented researchers, scientists, academics and students with private enterprise and government partners, Melbourne Connect seeks to unlock the value and global reach of the University's research and people. The pivotal work to be undertaken in Melbourne Connect will address major societal challenges by identifying solutions that are data driven, digitally enabled and socially responsible.

To find out more visit <https://melbconnect.com.au/>.

## 5.4 FACULTY OF ENGINEERING AND INFORMATION TECHNOLOGY

The Faculty of Engineering and Information Technology (FEIT) has been the leading Australian provider of engineering and IT education and research for over 150 years. We are a multidisciplinary School organised into three key areas; Computing and Information Systems (CIS), Chemical and Biomedical Engineering (CBE) and Electrical, Mechanical and Infrastructure Engineering (EMI). FEIT continues to attract top staff and students with a global reputation and has a commitment to knowledge for the betterment of society.

FEIT has never been better positioned as a global leader, anchored in the dynamic Asia Pacific region, creating and curating knowledge to address some of the world's biggest challenges. Through our students and our relationships with communities, we can not only respond to society's needs but anticipate and create engineering and IT solutions for the future.

<https://eng.unimelb.edu.au/>

<https://eng.unimelb.edu.au/about/join-mse>

Our ten-year strategy, FEIT 2025, is our School's commitment to bring to life the University-wide strategy Advancing Melbourne and reinforce the University of Melbourne's position as one of the best in the world.

To achieve our ambitions, we will continue to build new infrastructure to enable our teaching, research and engagement; we continue to recruit outstanding people from around the world; and we continue to attract high-quality students from across the globe who are at the heart of our enterprise.

## 5.5 THE UNIVERSITY OF MELBOURNE

Established in 1853, the University of Melbourne is a leading international university with a tradition of excellence in teaching and research. The main campus in Parkville is recognised as the hub of Australia's premier knowledge precinct comprising eight hospitals, many leading research institutes and a wide-range of knowledge-based industries. With outstanding performance in international rankings, the University is at the forefront of higher education in the Asia-Pacific region and the world.

The University employs people of outstanding calibre and offers a unique environment where staff are valued and rewarded.

Further information about working at The University of Melbourne is available at <http://about.unimelb.edu.au/careers>.

## 5.6 GROWING ESTEEM, THE MELBOURNE CURRICULUM AND RESEARCH AT MELBOURNE: ENSURING EXCELLENCE AND IMPACT TO 2025

Growing Esteem describes Melbourne's strategy to achieve its aspiration to be a public-spirited and internationally-engaged institution, highly regarded for making distinctive contributions to society in research and research training, learning and teaching, and engagement. <http://about.unimelb.edu.au/strategy-and-leadership>

The University is at the forefront of Australia's changing higher education system and offers a distinctive model of education known collectively as the Melbourne Curriculum. The new educational model, designed for an outstanding experience for all students, is based on six broad undergraduate programs followed by a graduate professional degree, research higher degree or entry directly into employment. The emphasis on academic breadth as well as disciplinary depth in the new degrees ensures that graduates will have the capacity

to succeed in a world where knowledge boundaries are shifting and reforming to create new frontiers and challenges. In moving to the new model, the University is also aligning itself with the best of emerging European and Asian practice and well-established North American traditions.

The University's global aspirations seek to make significant contributions to major social, economic and environmental challenges. Accordingly, the University's research strategy *Research at Melbourne: Ensuring Excellence and Impact to 2025* aspires to a significant advancement in the excellence and impact of its research outputs. <http://research.unimelb.edu.au/our-research/research-at-melbourne>

The strategy recognises that as a public-spirited, research-intensive institution of the future, the University must strive to make a tangible impact in Australia and the world, working across disciplinary and sectoral boundaries and building deeper and more substantive engagement with industry, collaborators and partners. While cultivating the fundamental enabling disciplines through investigator-driven research, the University has adopted three grand challenges aspiring to solve some of the most difficult problems facing our world in the next century. These Grand Challenges include:

- Understanding our place and purpose – The place and purpose grand challenge centres on understanding all aspects of our national identity, with a focus on Australia's 'place' in the Asia-Pacific region and the world, and on our 'purpose' or mission to improve all dimensions of the human condition through our research.
- Fostering health and wellbeing – The health and wellbeing grand challenge focuses on building the scale and breadth of our capabilities in population and global health; on harnessing our contribution to the 'convergence revolution' of biomedical and health research, bringing together the life sciences, engineering and the physical sciences; and on addressing the physical, mental and social aspects of wellbeing by looking beyond the traditional boundaries of biomedicine.
- Supporting sustainability and resilience – The sustainability and resilience grand challenge addresses the critical issues of climate change, water and food security, sustainable energy and designing resilient cities and regions. In addition to the technical aspects, this grand challenge considers the physical and social functioning of cities, connecting physical phenomena with lessons from our past, and the implications of the technical solutions for economies, living patterns and behaviours.

Essential to tackling these challenges, an outstanding faculty, high performing students, wide collaboration including internationally and deep partnerships with external parties form central components of Research at Melbourne: Ensuring Excellence and Impact to 2025.

## 5.7 GOVERNANCE

The Vice Chancellor is the Chief Executive Officer of the University and responsible to Council for the good management of the University.

Comprehensive information about the University of Melbourne and its governance structure is available at <http://www.unimelb.edu.au/governance>