



## Position Description

<b>College/Division:</b>	ANU College of Engineering & Computer Science
<b>School/Centre:</b>	Research School of Computer Science
<b>Department/Unit:</b>	Our Health in Our Hands (OHIOH), Program 2: Big Data
<b>Position Title:</b>	Research Fellow/Fellow
<b>Classification:</b>	Academic Level B/C
<b>Position No:</b>	TBA
<b>Responsible to:</b>	Adjunct/Professor Hanna Suominen, Research School of Computer Science

### PURPOSE STATEMENT:

The ANU College of Engineering and Computer Science (CECS) is one of the premier engineering and computer science research institutions in the world. Comprising the Research School of Computer Science (RSCS) and the Research School of Engineering, both are recognised as research leaders in their respective areas continuing the tradition of excellence in research and research-led education.

The Research School of Computer Science brings together the best and brightest researchers, scholars and fosters a vibrant culture that prepares our students for a career in a field central to progress in nearly all aspects of life in the 21st century.

Our health in our hands (OHIOH) is part of the ANU Grand Challenge Scheme and aims to investigate and demonstrate how personalised medicine can address major global health challenges through wearable technologies, portable devices, and their data analytics. These future information and communications technologies will mean patients receiving earlier diagnoses, enhanced disease management, and precision therapy regardless of their geographical location or social circumstances. They hold the potential for early detection and regular monitoring of diseases in a scalable, patient-friendly manner.

The overall purpose is to develop future technologies for objectively revealing early indicators of multiple sclerosis (MS) and diabetes, their progression, and their prognosis over time whilst ensuring healthcare patients and professionals' right for privacy. This position will work synergistically with the ANU Grand Challenge team benefitting from the breath of the research programs and expertise.

### KEY ACCOUNTABILITY AREAS:

#### Position Dimension & Relationships:

The position is located within the Research School of Computer Science (RSCS) and will be accountable to the OHIOH Program 2, Director, Adj/Prof Hanna Suominen. The appointee will be expected to liaise with other relevant academic and professional staff within RSCS and the ANU as well as establishing relationships with the wider research community to enhance cross-disciplinary collaborations.

The appointee is expected to undertake independent research activities that are aligned with the ANU OHIOH Grand Challenge and the School's strategic priorities that emphasise relevant and translational research. The appointee is also expected to contribute cooperatively to the overall intellectual life of the Challenge, School, College and University. This includes contribution to research, education and outreach agendas of the Challenge and School both nationally and internationally in a manner that is appropriate to the level of appointment.

## **Role Statement:**

### **ANU Academic Level B:**

In their role as academic level B in the Research School of Computer Science, the appointee will be expected to:

1. Acquire, apply, and develop knowledge of databases; ML; networked information systems; cyber-physical security; software design, development, evaluation; and health informatics in the project, both independently and as a team member and under guidance from the Challenge.
2. Take responsibility of the timely and on budget delivery of the planned project outcomes.
3. Undertake independent research with a view to publishing original and innovative results in refereed journals, present research at academic seminars and at national and international conferences, and collaborate with other researchers at a national and/or international level.
4. Actively seek and secure external funding, including the preparation and submission of research proposals to external funding bodies.
5. Supervise students working on individual or group projects at undergraduate, honours, graduate-coursework levels and assist in supervising research students and project staff.
6. Actively contribute to all aspects of the operation of the Challenge, School and College.
7. Assist in outreach activities including to prospective and current students, research institutes, industry, government, the media, and the general public.
8. Maintain high academic standards in all education, research, and administration endeavours.
9. Comply with all ANU policies and procedures, and in particular those relating to work health and safety and equal opportunity
10. Other duties as required consistent with the classification level of the position.

### **ANU Academic Level C:**

In their role as ANU academic level C in the Research School of Research School of Computer Science the appointee will be expected to:

1. Acquire, apply, and develop knowledge of databases, ML, data analysis, health informatics, information systems, data analytics tools, ML toolkits, and software pipelines in the project, both independently and as a team member and under guidance from the Challenge.
2. Take responsibility of and demonstrate leadership in the timely and on budget delivery of the planned project outcomes.
3. Undertake high impact independent research with a view to publishing original and innovative results in international refereed journals, present research at academic seminars and at national and international conferences, and collaborate with other researchers at a national and/or international level.
4. Actively seek and secure external funding, including taking initiative and demonstrating leadership in the preparation and submission of research proposals to external funding bodies.
5. Lead, supervise, and develop less senior academic and research support staff; research students; and students working on individual or group projects at undergraduate, honours, graduate-coursework levels.
6. Proactively contribute to all aspects of the operation of the Challenge, School and College. This may include representation through committee membership.
7. Lead outreach activities including to prospective and current students, research institutes, industry, government, the media and the general public.
8. Maintain and actively promote high academic standards in all education, research and administration endeavours.
9. Comply with all ANU policies and procedures, and in particular those relating to work health and safety and equal opportunity
10. Other duties as required consistent with the classification level of the position.

**SELECTION CRITERIA:****ANU Academic Level B**

1. A PhD in computer science or a related area, with a track record of independent research in the field of computer science or related area, as evidenced by cited publications in peer-reviewed journals and conferences, a record of developing and maintaining collaborations and by other measures such as awards, invitations to give talks at leading conferences etc.
2. Knowledge and demonstrated experience of areas such as databases, ML, networked information systems, cyber-physical security, and health informatics; related methods and tools; and their applications and evaluations.
3. Experience in applying design thinking and/or value sensitive design methods to software development.
4. Evidence of the ability to articulate and prosecute innovative research of international standing, a vision for the activities they will undertake at the ANU OHIOH Grand Challenge, and the potential for their research activities to complement and/or significantly enhance existing activities within the Challenge, School, College, and University.
5. Experience in liaising and collaborating with external agencies to develop co-operative research initiatives and attract competitive funding to support individual and collaborative research activities.
6. A track record of successfully supervising high quality PhD/Masters research students, software engineers, or user experience designers.
7. Demonstrated experience in tutoring or teaching to diverse cohorts and/or project work in teams across disciplines or professions.
8. Excellent oral and written English language skills and a demonstrated ability to communicate and interact effectively with a variety of staff and students in a cross-disciplinary academic environment and to foster respectful and productive working relationships with staff, students, and colleagues at all levels.
9. A demonstrated high-level understanding of equal opportunity principles and a commitment to the application of these policies in a university context.

**ANU Academic Level C**

1. A PhD in computer science or a related area, with a strong track record of independent research in the field of computer science or related area, as evidenced by cited publications in peer-reviewed journals and conferences, a record of developing and maintaining collaborations and by other measures such as awards, invitations to give talks at leading conferences etc.
2. Sound knowledge and demonstrated experience of areas such as databases, data analytics, ML, software engineering, and health informatics; related methods and tools; and their applications and evaluations.
3. Demonstrated experience in applying design thinking and/or value sensitive design methods to software development.
4. A strong track record of articulating and prosecuting innovative research of international standing, a vision for the activities they will undertake at the ANU OHIOH Grand Challenge, and the potential for their research activities to complement and/or significantly enhance existing activities within the Challenge, School, College, and University.
5. A strong track record in establishing and maintaining key industry and government partnerships that translate to competitive external funding to support individual and collaborative research activities.
6. A track record of successfully supervising and graduating high quality PhD/Masters research students and/or supervising or managing software engineers and user experience designers.
7. Demonstrated experience in tutoring or teaching to diverse cohorts and/or project work in multi-professional teams across scientific disciplines.
8. Excellent oral and written English language skills and a demonstrated ability to communicate and interact effectively with a variety of staff and students in a cross-disciplinary academic environment and to foster respectful and productive working relationships with staff, students, and colleagues at all levels.
9. A demonstrated high-level understanding of equal opportunity principles and a commitment to the application of these policies in a university context.

<b>Supervisor Signature:</b>		<b>Date:</b>	
Printed Name:		<b>Uni ID:</b>	

**References:**

[General Staff Classification Descriptors](#)

[Academic Minimum Standards](#)

## Pre-Employment Work Environment Report

Please note the Pre-Employment Work Environment Report form must be completed by the supervisor of the advertised position and provided electronically and separately, as it needs to be uploaded into ANU Recruit system and available for applicants to download when reviewing the position documentation. Without this form jobs cannot be advertised.

 <b>Australian National University</b>	<h1 style="font-size: 1.5em;">Pre-Employment Work Environment Report</h1>
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### Position Details

<b>College/Div/Centre</b>	College of Engineering and Computer Science	<b>Dept/School/Section</b>	Research School of Computer Science
<b>Position Title</b>	Research Fellow/Fellow	<b>Classification</b>	Level B – Level C
<b>Position No.</b>		<b>Reference No.</b>	

In accordance with the Occupational Health and Safety Act 1991 the University has a duty of care to provide a safe workplace for all staff.

- This form must be completed by the supervisor of the advertised position and forwarded with the job requisition to Appointments and Promotions Branch, Human Resources Division. Without this form jobs cannot be advertised.
- This form is used to advise potential applicants of work environment issues prior to application.
- Once an applicant has been selected for the position consideration should be given to their inclusion on the University's Health Surveillance Program where appropriate – see [http://info.anu.edu.au/hr/OHS/\\_\\_\\_Health\\_Surveillance\\_Program/index.asp](http://info.anu.edu.au/hr/OHS/___Health_Surveillance_Program/index.asp)  
Enrolment on relevant OHS training courses should also be arranged – see [http://info.anu.edu.au/hr/Training\\_and\\_Development/OHS\\_Training/index.asp](http://info.anu.edu.au/hr/Training_and_Development/OHS_Training/index.asp)
- 'Regular' hazards identified below must be listed as 'Essential' in the Selection Criteria - see 'Employment Medical Procedures' at [http://info.anu.edu.au/Policies/\\_DHR/Procedures/Employment\\_Medical\\_Procedures.asp](http://info.anu.edu.au/Policies/_DHR/Procedures/Employment_Medical_Procedures.asp)

### Potential Hazards

<ul style="list-style-type: none"> <li>• Please indicate whether the duties associated with appointment will result in exposure to any of the following potential hazards, either as a <b>regular</b> or <b>occasional</b> part of the duties.</li> </ul>			
<b>TASK</b>	<b>regular</b>	<b>occasional</b>	
key boarding	<input type="checkbox"/>	<input type="checkbox"/>	
lifting, manual handling	<input type="checkbox"/>	<input type="checkbox"/>	
repetitive manual tasks	<input type="checkbox"/>	<input type="checkbox"/>	
catering / food preparation	<input type="checkbox"/>	<input type="checkbox"/>	
fieldwork & travel	<input type="checkbox"/>	<input type="checkbox"/>	
driving a vehicle	<input type="checkbox"/>	<input type="checkbox"/>	
<b>NON-IONIZING RADIATION</b>			
solar	<input type="checkbox"/>	<input type="checkbox"/>	
ultraviolet	<input type="checkbox"/>	<input type="checkbox"/>	
infra red	<input type="checkbox"/>	<input type="checkbox"/>	
laser	<input type="checkbox"/>	<input type="checkbox"/>	
radio frequency	<input type="checkbox"/>	<input type="checkbox"/>	
<b>CHEMICALS</b>			
hazardous substances	<input type="checkbox"/>	<input type="checkbox"/>	
allergens	<input type="checkbox"/>	<input type="checkbox"/>	
cytotoxics	<input type="checkbox"/>	<input type="checkbox"/>	
mutagens/teratogens/ carcinogens	<input type="checkbox"/>	<input type="checkbox"/>	
pesticides / herbicides	<input type="checkbox"/>	<input type="checkbox"/>	
<b>TASK</b>	<b>regular</b>	<b>occasional</b>	
laboratory work	<input type="checkbox"/>	<input type="checkbox"/>	
work at heights	<input type="checkbox"/>	<input type="checkbox"/>	
work in confined spaces	<input type="checkbox"/>	<input type="checkbox"/>	
noise / vibration	<input type="checkbox"/>	<input type="checkbox"/>	
electricity	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IONIZING RADIATION</b>			
gamma, x-rays	<input type="checkbox"/>	<input type="checkbox"/>	
beta particles	<input type="checkbox"/>	<input type="checkbox"/>	
nuclear particles	<input type="checkbox"/>	<input type="checkbox"/>	
<b>BIOLOGICAL MATERIALS</b>			
microbiological materials	<input type="checkbox"/>	<input type="checkbox"/>	
potential biological allergens	<input type="checkbox"/>	<input type="checkbox"/>	
laboratory animals or insects	<input type="checkbox"/>	<input type="checkbox"/>	
clinical specimens, including blood	<input type="checkbox"/>	<input type="checkbox"/>	
genetically-manipulated specimens	<input type="checkbox"/>	<input type="checkbox"/>	
immunisations	<input type="checkbox"/>	<input type="checkbox"/>	
<b>OTHER POTENTIAL HAZARDS (please specify):</b>			

<b>Supervisor's Signature:</b>	<b>Print Name:</b>	<b>Date:</b>

