

Post Title: Postdoctoral Researcher for Health Knowledge Recommender Project

Post Duration: Fixed-term specified purpose for up to 5 years (initial funding for 12 months)

Salary Scale: €46,912 p/a (TU Dublin PD scale pt.1)

Location: TU Dublin

Reports to: Dr Damon Berry

Closing Date: 13th September 2024

Apply: See below for details

Why ADAPT?

- **Contribute** to the ADAPT research agenda that pioneers and combines research in AI driven technologies: Natural Language Processing, Video/Text/Image/Speech processing, digital engagement & HCI, semantic modelling, personalisation, privacy & data governance.
- **Work** with our interdisciplinary team of leading experts from the complementary fields of, Social Sciences, Communications, Commerce/Fintech, Ethics, Law, Health, Environment and Sustainability.
- **Leverage our success.** ADAPT's international research leadership, research excellence, industry collaborations, multidisciplinary outlook, strategic national position, and the opportunities arising from its scale, make our researchers highly sought after for collaboration and highly competitive in international funding programmes and has competitively won over 40 European Research Projects.

As an ADAPT researcher you will have access to a network of 85 global experts and over 250 staff, as well as a wide multidisciplinary ecosystem across 8 leading Irish universities. We can influence and inform your work, share our networks, and collaborate with you to increase your impact, and accelerate your career opportunities. Specifically, we offer:

- Exposure and free access within a multidisciplinary ecosystem across 8 leading Irish universities
- Opportunity to build your profile at international conferences and global events
- Fast-track your career through formalised training & development, expert one-on-one supervision and exposure to top AI specialists

Role overview

TU Dublin is seeking to recruit a highly motivated postdoctoral researcher in Computer Science, or related areas to research, develop and evaluate an *ontology* to support a *person-centred recommender system* for patients and carers who are dealing with progressive chronic conditions. The design will employ a staged model for progression of different forms of dementia to classify and recommend learning resources in a person-centred way. To evaluate the design, Informational/educational materials will be classified using an *ontology of dementia condition stages* (e.g. a knowledge graph) alongside a *knowledge model of patient/carer context*, in order to facilitate personalised progressive disclosure to patients and their carers, of information that is relevant to the patient's condition stage.

The work on this Research Programme is carried out by a Postdoctoral Research Fellow and is quasi-autonomous research activity. The mentoring Principal Investigator (PI) will advise the appointee on the conduct of their research which itself will be part of a research programme that the PI is responsible for. The intention is that during the employment of the appointee, they will avail of learning opportunities provided by TU Dublin and/or external agencies related to their particular research programme or research practice in general. At the completion of the Postdoctoral Research Fellowship period, the appointee will be expected to leave the University and continue their academic formation and development in a different research environment. At the completion of the mentored training period, the appointee should be in a position to take up employment as a fully autonomous researcher with another employer.

Duties & responsibilities

- Manage and conduct a specific programme of research and scholarship under the leadership of the Principal Investigator/Senior member of academic staff.
- Disseminate the outcomes of this research and scholarship including peer-reviewed academic publications of international standing.
- Assist in the further development of the research programme and in seeking and pursuing appropriate external funding.
- Where appointed to do so by TU Dublin, supervise or co-supervise with a full time member of TU Dublin staff, graduate research students.
- Take responsibility for and manage and conduct administrative and management tasks associated with the programme of research.
- Engage in appropriate training and professional development opportunities as required by the Principal Investigator.
- Play an active role in knowledge and technology transfer activities. Manage research grants in accordance with TU Dublin Financial Regulations and the conditions of the funding body.
- Prepare and present research findings to colleagues for review purposes.
- Submit papers to appropriate journals and attend and present findings at appropriate conferences.
- Prepare progress reports on research for funding bodies as required.
- Seek new areas of research and prepare and submit research bids and proposals that will enhance the reputation of TU Dublin.

- Participate fully in the wider research and scholarly activities of the Research Centre/University and Faculty/School.
- Teach on undergraduate and taught postgraduate programmes for a maximum of 100 hours in one academic year.
- The postholder will carry out any other duties within the scope, spirit and purpose of the job as requested by the PI or Director of the Faculty/School.
- Comply with all TU Dublin policies and regulations, including those in relation to Research Ethics and Health and Safety.

Person Specification

The ideal candidate will demonstrate the appropriate mix of knowledge, experience, skills, talent and abilities required for the role as outlined below and must satisfy all of the essential criteria:

Essentials

- A PhD in Computer Science, or equivalent (**Essential**)
- A strong technical background including strong programming skills, experience of information modelling and data representation (**Essential**)
- Experience in designing and developing digital applications (**Essential**)
- Knowledge of research techniques and methodologies (**Essential**)
- Commitment to high quality research (**Essential**)

Candidates will be shortlisted based on their demonstration of meeting every essential criterion so are asked to clearly outline how their experience and qualifications meet the criteria.

Desirables

- Evidence of a research profile and publication record within the requisite subject area (**Desirable**)
- Experience in working with older adults (**Desirable**)
- Experience in the field of digital health (**Desirable**)

Candidates may be shortlisted on the basis of none, one or more of these desirable criteria and are asked to clearly outline how their experience and qualifications meet the criteria.

Personal attributes required for the role:

- Ability to manage and conduct research independently and as a member of a team.
- Excellent communication skills

Further information for Post-doctoral Researcher

In the case of a 1st Post-doctoral Fellowship where the applicant may not have graduated yet, the successful applicant must, at the time of appointment, provide a letter from the appropriate graduate studies office confirming that the student has completed the programme including all the examination requirements and is just awaiting the formal graduation ceremony and the likely date on which that will take place.

Eligibility to compete

Eligibility to compete is open to candidates who are citizens of the **European Economic Area (EEA) or Switzerland**. The EEA comprises member states of the European Union along with Iceland, Liechtenstein and Norway. Other candidates may be eligible to compete **subject to their having an appropriate work permit** for the nature and duration of the position.

For Technological University Dublin staff, a secondment for the duration of the contract may be considered.

Terms and Conditions of Employment

A full statement of terms and conditions of employment will be given to the successful applicant in accordance with Terms of Employment (Information) Acts 1994 and 2001.

The main terms and conditions of employment are as follows:

- **Tenure:** The post will be offered on a Fixed-Term Specified Purpose Wholetime basis.
- **Location:** The successful candidate will initially be based in TU Dublin, Grangegorman but may be reassigned at the discretion of TU Dublin.
- **Salary:** The successful candidate will be appointed at point (01) of the Post Doctoral Research Salary Scale i.e. **€46,912 gross per annum**.
Remuneration may be adjusted from time to time in line with Government pay policy. Incremental credit may apply in line with University policy.
- **Hours of work:** A 37-hour working week is in operation. This can be reviewed by collective agreement, with the Minister for Further and Higher Education, Research, Innovation and Science. Having regard to the nature of the work, attendance outside these hours may be required from time to time.
- **Probation:** The terms of the University's Staff Induction policy and Probation procedure may apply.
- **Annual leave:** Annual Leave and Public Holidays shall be granted as per the Holidays (Employees) Act 1973 and Organisation of Working Time Act 1997. The annual leave entitlement for this post is 25 days per annum this is inclusive of the University closure days.
- **Retirement:** The appointee will not be entitled to join the Education Sector Superannuation Scheme; however the University has a PRSA in place. A PRSA is a straightforward pension product that was introduced in 2003 by the Pensions (Amendment) Act 2002. It is a contract between an individual and the authorised PRSA provider in the form of an investment account that can be used to save for retirement.
- **Sick Leave:** The terms of the TU Dublin Sick Leave policy will apply. Sick leave will be in accordance with arrangements authorised from time to time by the Minister for Further and Higher Education, Research, Innovation and Science.

Other conditions:

Nature of the post

The post will be on a Fixed-Term Specified Purpose Wholetime basis, subject to the terms of the provisions of the Technological Universities Act 2018.

TU Dublin Benefits

- Tax Saver travel scheme
- Cycle to Work scheme
- Employee Assistance Programme
- Access to VHI Group Insurance scheme rates
- Health and Well-Being programmes
- Fee support for further education
- Fee waiver for TU Dublin programmes
- Staff Development short-courses and seminars e.g. Women Leaders in Education, Project Management, Leadership Development Programme, Aurora Leadership Development for Women
- Mentoring Programmes
- Facilitation of direct deductions from salary for Hospital Saturday Fund health plan/
Income Continuance Plan/VHI Insurance Plan/Cornmarket financial advice plan
- Study and Exam leave
- Secondments
- Erasmus Staff Programme
- Networking opportunities throughout the university
- Sports facilities and discounted gym membership
- Opportunities to attend conferences
- Optometry Centre – free eye tests and discounted glasses
- Irish Language Classes

Application Process

Applications will be accepted through the online application service at www.tudublin.ie/vacancies. A CV and cover letter will be required in addition to the application form. All correspondence from the University regarding your application will be by email. Please ensure that the security filters on your email provider will accept emails from TU Dublin.

The selection process may include:

- shortlisting of candidates on the basis of the information contained in their application
- a competitive preliminary interview
- completion of online questionnaire(s)
- presentation or other exercises
- a final competitive interview (Competency Based)
- work sample/role play/media exercise and/or any other tests or exercises deemed appropriate

The University is committed to equality of opportunity and welcomes applications from all. However, our employment monitoring data tells us that individuals from Black, Asian and Minority Ethnic (BAME) communities, people with a disability and those who identify as LGBT+ are currently under-represented at the University. As such, we particularly welcome applications from these individuals.

The TU Dublin vacancy ID for this position is: **034623 034623**

Closing Date

The closing date for applications is **5pm (Irish Time) on 13th September 2024**. Late applications will not be accepted.

It is anticipated that interviews for this post will take place in week beginning **21st of October 2024**. The interview assessment will be **40** minutes in length and will include a presentation of **10** minutes duration. The topic of this presentation will be as follows:

How I would use standard information model formats to represent disease progression for patients with dementia

Contact information

For further information about this post please contact: Damon Berry, damon.berry@tudublin.ie

For guidance on completing your application please follow steps 1-10 as outlined in the **Guidance on completing the Application Form** section on the TU Dublin job advert. This job advert can be found via www.tudublin.ie/vacancies, searching for job ID 034623 and downloading the Final Candidate Brief document.

For queries regarding the application process, please contact **Rosemary Okafor** at **(01) 220 5175** between 9.30 and 5.00pm, Monday to Friday or email Rosemary.okafor@TUDublin.ie

Appeals

If a candidate wishes to appeal either a shortlisting decision or a Selection Board decision, they must indicate their intention to do so by submitting an email to the Recruitment Manager (referred to as HR Management throughout this appeals process) within 2 working days of the date upon which written notification to the unsuccessful candidate is issued. The email notice of intent must be followed by the submission of the Appeal Form to HR Management. The completed Appeal Form must be submitted no later than 5 working days of the date upon which written notification to the unsuccessful candidate is issued or up to 3 working days after the submission of the email notice of intent. Further details in relation to the University's Recruitment, Selection & Appointment Policy, including details in relation to the Appeals Procedure, can be found at the following link:

<https://www.tudublin.ie/media/website/for-staff/human-resources/Recruitment,-Selection-and-Appointment--Policy-14.08.23.pdf>

Further information for Candidates

- Canvassing will automatically disqualify.
- Late applications will not be accepted. You will not be able to apply on the online system once the deadline is passed. Therefore, you should ensure you allow sufficient time to make your application in advance of the closing date and time.
- You may only submit one application per competition. Should you have any issues with your submission, please contact recruitment@tudublin.ie
- TU Dublin applies a shortlisting process for all competitions. Therefore, you should ensure that the information provided clearly and fully describes how you satisfy the essential, desirable, and any of the other role requirements set out in the Person Specification. It is important to ensure that your application clearly demonstrates that you hold the qualifications, knowledge and experience required for the role. The successful candidate will be required to submit parchments of Degrees, Diplomas, Certificates and other professional qualifications if these are not already on file with Human Resources.
- TU Dublin is an equal opportunities employer and is committed to the employment policies, procedures and practices which do not discriminate on grounds such as gender, civil status, family status, age, disability, race, religious belief, sexual orientation or membership of the travelling community

“Technological University Dublin (TU Dublin) is committed to attracting, recruiting, developing and retaining the highest calibre of staff to build a diversified, supportive, innovative and inclusive workforce reflective of the wider community. TU Dublin aims to attract the best people who have the experience, knowledge, skills, abilities and competencies to support the University’s mission. TU Dublin supports equality of opportunity, diversity and inclusion and encourages underrepresented groups to make applications and accommodates candidates with disability to apply for posts”

[Recruitment, Selection and Appointment Policy](#)

About the ADAPT Centre

ADAPT is the world-leading SFI research centre for AI Driven Digital Content Technology, coordinated by Trinity College Dublin and based within Dublin City University, University College Dublin, Technological University Dublin, Maynooth University, Munster Technological University,

Technological University of the Shannon, and the University of Galway. ADAPT's research vision is to pioneer new forms of proactive, scalable, and integrated AI-driven Digital Content Technology that empower individuals and society to engage in digital experiences with control, inclusion, and accountability with the long term goal of a balanced digital society by 2030. ADAPT is pioneering new Human Centric AI techniques and technologies including personalisation, natural language processing, data analytics, intelligent machine translation human-computer interaction, as well as setting the standards for data governance, privacy and ethics for digital content.

Our Research Vision

Governments and civil society are starting to recognise the need for urgent and concerted action to address the societal impact of the accelerating pace of digital content technologies and the AI techniques that underpin them. ADAPT provides an ambitious, ground-breaking, integrated research programme that assembles three interlocking Strands that together are capable of addressing this challenge. Each of these complementary and reinforcing research strands takes one of the different perspectives on the provision of personalised, immersive, multimodal digital engagement, i.e. the individual's experience and control of the engagement, the algorithms underlying digital content processing, and the balanced governance by enterprise and societal stakeholders.

Digitally Enhanced Engagement Strand

From the individual perspective, research within this Strand will deliver proactive agency techniques that sense, understand and proactively serve the needs of individual users to deliver relevant, contextualised and immersive multimodal experiences, which also offer them meaningful control over the machine agency delivering those experiences.

Digital Content Transformation Strand

From the algorithmic perspective, new machine learning techniques will both enable more users to engage meaningfully with the increasing volumes of content globally in a more measurably effective manner, while ensuring the widest linguistic and cultural inclusion. It will enhance effective, robust integrated machine learning algorithms needed to provide multimodal content experiences with new levels of accuracy, multilingualism and explainability.

Transparent Digital Governance Strand

From the enterprise and societal perspective, new structured knowledge frameworks and associated practices for AI data governance will be required to balance the needs and values of individuals, organisations and society when it comes to rich digital experiences. This requires the advancement of research in the areas of data ethics, data quality, data protection, data value, data integration, and multi-stakeholder governance models.

Diversity

ADAPT is committed to achieving better diversity and gender representation at all levels of the organisation, across leadership, academic, operations, research staff and studentship levels. ADAPT is committed to the continued development of employment policies, procedures and practices that promote gender equality. On that basis, we encourage and welcome talented people from all backgrounds to join ADAPT.

TU Dublin – A New University for A Changing Ireland

At TU Dublin, our distinguished researchers and innovators are pioneers in science and technology discovery, play active roles in informing policy and standards; and contribute to the creative life of Ireland. Our award-winning technology transfer and business incubation activity has so far delivered over 400 new sustainable businesses with an economic value of almost €700 million.

With an international outlook, we welcome students and staff from around the world, while our strong international partnerships provide opportunities for student and staff exchange programmes, major cross-collaboration research projects, and employment opportunities.

We are immensely proud of our network of 100,000+ TU Dublin graduates who are making their careers here in Ireland and in 70 countries worldwide, and of our staff who support all our students to make their mark on the world.

Find out more about TU Dublin and what each of our five locations can offer at <https://www.tudublin.ie/explore/our-campuses/>

For more information on TU Dublin, please refer to the Final Candidate brief document, which can be found via www.tudublin.ie/vacancies, searching for job ID 034623 and downloading the Final Candidate Brief document.