



Trinity College Dublin

Coláiste na Tríonóide, Baile Átha Cliath

The University of Dublin

Job Description

Reference ID:	CF-2024-2367-I
Post status	Specific Purpose Contract (full-time)
Job Title:	Postdoctoral healthcare researcher
School/Department:	School of Computer Science and Statistics
Research group	Amethystcare research team
Reports to:	Prof Vincent Wade
Duration:	18 months
Commencement date	Immediately
Salary	Appointment will be made on the SFI Researcher Salary scales at Post doctoral researcher (Level 2-6) depending on experience.

Post Summary

AmethystCare is the voice technology companion that helps care for people with mobility-related illnesses and cognitive-impairment at home, allowing them to live independently for longer. AmethystCare will offer an AI-driven voice assistant that is delivered through Amazon Alexa devices (or similar) to B2B care and health organisations that seek to enable patients to stay at home as long as possible. The assistant will monitor older person loneliness, and cognitive decline, assist with medicine adherence, and detect falls or other emergencies. The data will be tracked through our analytics hub. This will be tracked over time to allow medical professionals and carers to have a detailed view of the older person progress and ability to live independently at home. It is anticipated that this service will reduce the cost of care and enable organisations to provide a better service but also improve lives of older people. The role may require work in the field and travel to a person's home, for which Garda vetting will be required. The overall research team in this project will consist of the commercial lead, two Software developers, one quality controller and one AI researcher.

Context

The position will be based in the ADAPT SFI Research Centre, hosted in the School of Computer Science & Statistics, Trinity College Dublin. ADAPT is the world-leading SFI Research Centre for AI-Driven Digital Content Technology, and brings leading academics, researchers and industry partners together to deliver excellent science, engage the public, develop novel solutions for business across all sectors and enhance Ireland's international reputation. The ADAPT Centre is hosted and coordinated in the School of Computer Science and Statistics, TCD.

The School of Computer Science and Statistics is ranked #1 in Ireland (QS Rankings) and is a proud recipient of a Bronze Athena Swan award, attained in 2021. As part of the School's on-going actions in relation to equality, diversity and inclusion it welcomes all applications that meet the criteria below and particularly those from under-represented groups. The School offers a collegiate and supportive environment to all its staff and works to ensure that all its staff and students can perform at their best while putting in those steps that facilitate a healthy work/life balance

Post doctoral health care researcher: Main Responsibilities

As part of the overall project, this appointed person will work on the following tasks:

- Provide clinical insights and expertise to guide the design and development of software.
- Ensure the software aligns with clinical workflows and standards of care delivery.
- Translate clinical needs into technical specifications for the development team.
- Onboarding and deployment of the software to end users.
- Report regularly to the PI and Commercial Lead of the project, and interact regularly with other team members to maintain momentum in the project.
- The position is fully in-person and requires the person to be based in Dublin, Ireland with occasional requirements for international travel.

Additionally, they will support other team members with the following tasks:

- Collaborate with software developers, designers, and Quality Controller to create user-friendly and clinically relevant software.
- Participate in the design of user interfaces and user experiences that facilitate clinical tasks.
- Work with the software team to ensure that the software complies with healthcare regulations and standards by supporting the Quality Controller rolling out a QMS system and becoming a Class 2 medical device in the EU, HIPAA compliance and FDA approvals in the United States.

Administrative

As a postdoctoral researcher in Adapt, the person will occasionally be required to engage in administrative tasks in support of the PI and Commercial Leads overall activity. This may include drafting sections of reports for funding bodies; organising a programme of suitably themed group meetings and seminars; contributing to research funding proposals; drafting of ethics applications; and other such tasks as they arise.

Person Requirements

The postdoctoral health care researcher will require a range of knowledge, skills and attributes for successful performance in the role. The successful candidate is expected to:

- Provide subject matter expertise in older person health and social care needs.
- Have ability to represent the group with excellent written and oral proficiency
- Be skilled at taking research ideas and draw innovative conclusions, or see new solutions
- Have excellent communication and interpersonal skills
- An ability to work autonomously and as part of a multidisciplinary team and learn new cross-over skills as well as transfer skills to others
- Be highly organised in their work, with an ability to balance medium term and longer-term objectives in a project.
- Experience in participant recruitment, data collection, and data analysis.
- Strong narrative analytic and writing for report writing and publication skills.

Knowledge & Experience (Essential & Desirable)

Essential

- A PhD is preferred.
- Ideally a professional background ideally in healthcare for example, medical, nursing, social care or allied health professions.
- At least four years of research and or clinical experience.
- This subject matter expertise will guide the conversational approach and types of assistance that the conversational agent needs to provide.
- The healthcare researcher will also have experience in testing and evaluating care solutions and/or technology solutions in the field with real users and collecting feedback for project teams.
- Strong commitment to their own professional development

Desirable

- Mentoring of junior team members (can be informal depending on career stage)
- Contribution to successful funding applications
- Exposure to standard tools for Software as a Medical Device (SaMD) management

Benefits

- Competitive salary
- High-end computer and peripherals
- Dedicated desk in shared office space, with generous social spaces
- A creative and enabling environment with impactful research
- Pension and social insurance (PRSI) included
- Trinity Day Nursery
- Travel Pass Scheme
- Bike to Work Scheme
- Employee Assistance Programme
- Sports Facilities
- 22 days of Annual Leave
- Paid Sick Leave
- Training & Development
- Staff Discounts locally

Application Procedure

Applicants should provide the following information when applying:

1. A motivation statement outlining their interest and suitability for the position.
2. A comprehensive curriculum vitae, including a full list of publications.
3. The names and contact details (e-mail) of two referees.

Note:

Candidates who do not address the application requirements above will not be considered for interview.

Further Information

Informal enquiries about this post should be made to Conor McNally (conor.mcnally@tcd.ie).

Snapshot of the Faculty

The Faculty of Science, Technology, Engineering and Mathematics is located at the east end of the Trinity campus. It brings together eight schools that deliver discipline-specific research and training (**Biochemistry & Immunology, Chemistry, Computer Science and Statistics, Engineering, Genetics & Microbiology, Mathematics, Natural Sciences, Physics**). Each School produces graduates that are leaders, innovators and doers in STEM education and research, in Ireland and beyond.

As well as these eight schools, the Faculty is made up of three Trinity College Research Institutes, five National Research Centres and three Units. Together these represent approximately 30% of the staff in the College.

Researchers in the Faculty address challenges that are complex and multi-faceted. They do this by continuously asking the fundamental questions of how? and why? They seek out answers to current and future challenges in climate change, food and water security, sustainable urbanisation, personal privacy, healthy ageing and eradicating infectious diseases. They lead innovations at the frontiers of science and technology often in high-level multi-disciplinary teams based within the Schools, Research Institutes and Centres.

The three Trinity Research Institutes are:

- **CRANN** - The Centre for Research on Adaptive Nanostructures and Nanodevices
- **TBSI** - Trinity Biomedical Sciences Institute
- **TCIN** - Trinity College Institute of Neuroscience

The four National Research Centres are:

- **ADAPT** - The SFI Centre for digital content and media innovation
- **AMBER** - The SFI Centre for Advanced Materials and BioEngineering Research
- **CONNECT** - The SFI Centre for digital content and media innovation
- **ENABLE** - Connecting communities with smart urban environments through the Internet of Things

The three units that support our teaching and learning mission are:

- **Biology Teaching Centre** - responsible for the coordination of all Biology teaching to Junior and Senior Freshman students in Science, as well as providing service teaching to other groups within the College.
- **Comparative Medicine Unit** - aims to advance knowledge and improve the health and wellbeing of humans and animals by servicing, and providing, world-class facilities and infrastructures, to the Trinity research community.
- **Science Course Office** - responsible for facilitating the Junior and Senior Fresh undergraduate Science Programmes.

Trinity College Dublin, the University of Dublin

Trinity College Dublin, the University of Dublin is Ireland's leading university, one of the top ranked universities in Europe and a member of the League of European Research Universities. It is currently ranked 98th in the QS World University Rankings 2023. Founded in 1592, the University is steeped in history with a reputation for excellence in education, research, and innovation.

Located on an iconic campus in the heart of Dublin's city centre, Trinity has 18,000 undergraduate and postgraduate students across our three faculties – Arts, Humanities, and Social Sciences; Science, Technology, Engineering and Mathematics; and Health Sciences.

The pursuit of excellence through research and scholarship is at the heart of a Trinity education, and our researchers have an outstanding publication record and strong record of grant success. Our research charter outlines the principles that are central to our research vision:

www.tcd.ie/research/about/charter

Trinity has developed **19 broad-based multidisciplinary research themes** that cut across disciplines and facilitate world-leading research and collaboration within the University and with colleagues around the world. Trinity is also home to five leading flagship research institutes:

- n **Trinity Biomedical Sciences Institute (TBSI)**
- n **Trinity College Institute of Neuroscience (TCIN)**
- n **Trinity Translational Medical Institute (TTMI)**
- n **Trinity Long Room Hub Arts and Humanities Research Institute (TLRH)**
- n **Centre for Research on Adaptive Nanostructures and Nanodevices (CRANN)**

Trinity is the top-ranked European university for producing entrepreneurs for the past seven successive years and Europe's only representative in the world's top-50 universities (Pitchbook Universities Report 2021).

Trinity has been incorporating sustainability right across the university. Commitments to sustainability have been made in the Strategic Plan (2020 – 2025) and via Trinity’s environmental sustainability practices under nine goals in areas that range from biodiversity to sustainable transport and green procurement.

For more on these sustainability commitments, please visit www.tcd.ie/provost/sustainability/initiatives

Trinity is home to the famous Old Library and to the historic Book of Kells as well as other internationally significant holdings in manuscripts, maps, and early printed material. The Trinity Library is a legal deposit library, granting the University the right to claim a copy of every book published in Ireland and the UK. At present, the Library’s holdings span approximately 7 million printed items, 500,000 e-books and 150,000 e-journals.

With over 130,000 alumni, Trinity’s tradition of independent intellectual inquiry has produced some of the world’s finest, most original minds including the writers Oscar Wilde and Samuel Beckett (Nobel laureates), the mathematician William Rowan Hamilton and the physicist, Ernest Walton (Nobel laureate), the political thinker Edmund Burke, and the former President of Ireland Mary Robinson. This tradition finds expression today in a campus culture of scholarship, innovation, creativity, entrepreneurship, and dedication to societal reform.

Rankings

Trinity is the top ranked university in Ireland and ranked 98th in the world (QS World University Rankings 2023). Trinity ranks in the top 50 in the world on 4 subjects and in the top 100 in 17 subjects (QS World University Rankings by Subject 2021).

Full details are available at: www.tcd.ie/research/about/rankings