Post Specification

Post Title:	Research Fellow in Computer Science
Post Status:	Specific Purpose Contract – Full-time.
Research Group / Department / School:	Graphics and Vision Discipline, School of Computer Science and Statistics, Trinity College Dublin, the University of Dublin
Location:	Stack B, Custom's House Quay, Trinity College Dublin, the University of Dublin College Green, Dublin 2, Ireland
Reports to:	Dr. John Dingliana
Salary:	Appointment will be made on the IUA Researcher Salary Scale for researchers [https://www.iua.ie/for-researchers/researcher-salary-scales-career-framework/]. The appointment will be made in line with the researcher's experience but no higher than Point 1 on the PD2 Post-Doctoral Researcher scale.
Hours of Work:	Typically, 9:00am to 5:00pm Mon-Fri. Some work may fall outside these hours if necessitated by time-limited requirements of the project. Flexible hours supported where not in contravention of Project Requirements
Closing Date:	12 Noon (GMT), March 18th 2025 or as soon as the post is filled thereafter.

Post Summary

A postdoctoral researcher position is available with the Graphics and Vision Discipline in the School of Computer Science and Statistics (SCSS), Trinity College Dublin (TCD) to work on a

research project funded by Horizon Europe, with the goal of creating novel human-centric tools for content production and consumption via social virtual reality.

Duration of post: To start as soon as possible and until end of project, September 30th 2025.

Standard Duties and Responsibilities of the Post

The postdoctoral researcher will work closely in collaboration with colleagues in TCD and a multi-institutional project consortium, towards the completion of several Work Packages of an EU-funded collaborative research project. Some key areas of responsibility are as follows:

XR CREATION: Contribute to *development* of tools that will enable story creators to produce novel XR media experiences. Contribute to the *evaluation* of media description formats, hardware and software components to facilitate XR content creation, focussing on 3D capture, from multiple sources, of storytellers, journalists, or performers, but also supporting 2D video, audio, and text.

XR AUDIENCE EXPERIENCES: leverage a range of technologies to enable active immersive content consumption experiences for end users. *Contribute to the evaluation* and definition of such technologies.

VOLUMETRIC VIDEO and HUMAN MOTION MODELS: contribute research and development efforts in Computer Graphics, AI and Computer Vision for analysis and processing of volumetric video and human motion data, to allow better usage and integration of such content into XR experiences, enhance the properties of volumetric data and enable better integration with established computer graphics and animation pipelines.

DEPLOYMENT OF PILOTS: collaborate with use case partners in the development and evaluation of pilot demonstrators

COMMUNICATION AND DISSEMINATION: attend recurrent meetings with inter-institutional partners to plan and advance project goals, contribute to presentation and written reporting of work completed, and participate in publishing results and increasing the visibility of the

project among targeted communities and the public. The researcher will be expected to travel abroad (within Europe) for some project meetings.

Funding Information

Horizon Europe

Person Specification

Qualifications

Masters or PhD in Computer Science or closely related discipline with at least one year of experience conducting research in one or more of the following areas: 3D Computer Graphics, Computer Vision, Deep Learning.

Knowledge & Experience (Essential & Desirable)

- *Essential:* significant experience and ability in computer programming. In particular, the research must have high level of experience and proficiency in python, C/C++ and linux.
- *Essential:* at least 1 year of experience post-PhD/post-Masters in academia or industry, working in the areas computer graphics, computer vision or deep learning.
- *Essential* some experience and knowledge of Extended Reality technologies, Interactive Computer Graphics and human motion representations (motion-capture data formats)
- *Essential:* awareness and understanding of volumetric video content creation algorithms, and volumetric video data storage and processing
- *Desirable:* experience in the implementation of XR experiences involving volumetric video, studio set-up and capture protocols for volumetric video content creation; experience in 3D graphics programming (e.g. OpenGL) and shader programming
- *Desirable:* prior publications in international journals and conferences.

Skills & Competencies

- Commitment to high quality research
- Effective written and verbal communication skills with ability to present complex information effectively to a range of audiences
- Good organisational skills
- Ability to work collaboratively and as part of a team

Application Procedure

Applicants should submit a full Curriculum Vitae to include the names and contact details of 2 referees (including email addresses), to:

John Dingliana

John.Dingliana@tcd.ie

Further Information for Applicants

URL Link to Area	www.tcd.ie
URL Link to Human Resources	https://www.tcd.ie/hr/

Trinity College Dublin, the University of Dublin

Trinity is Ireland's leading university and is ranked 98th in the world (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; Engineering, Mathematics and Science; and Health Sciences.

Trinity is ranked as the 17th most international university in the world (Times Higher Education Rankings 2020) and has students and staff from over 120 countries.

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. 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 5 leading flagship research institutes:

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

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

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 6.5 million printed items, 400,000 e-books and 150,000 e-journals.

With over 120,000 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 College Dublin is the top ranked university in Ireland. Using the QS methodology we are ranked 98th in the world and using the Times Higher Education World University Ranking methodology we are 146th in the World.

- Trinity College Dublin is Ireland's No.1 University
  (QS World University Ranking 2023, Times Higher Education Rankings 2022)
- Trinity is ranked 98th in the World
  (QS World University Ranking 2023)
- Trinity is ranked No.1 in Europe for Producing Entrepreneurs for the 7th year in a row
  Pitchbook 2021-2022

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

The Selection Process in Trinity

The Selection Committee (Interview Panel) may include members of the Academic and Administrative community together with External Assessor(s) who are expert in the area. Applications will be acknowledged by email. If you do not receive confirmation of receipt within 1 day of submitting your application online, please contact the named Recruitment Partner on the job specification immediately and prior to the closing date/time.

Given the degree of co-ordination and planning to have a Selection Committee available on the specified date, the University regrets that it may not be in a position to offer alternate selection dates. Where candidates are unavailable, reserves may be drawn from a shortlist.

Outcomes of interviews are notified in writing to candidates and are issued no later than 5 working days following the selection day.

In some instances the Selection Committee may avail of telephone or video conferencing. The University's selection methods may consist of any or all of the following: Interviews, Presentations, Psychometric Testing, References and Situational Exercises.

It is the policy of the University to conduct pre-employment medical screening/full pre-employment medicals. Information supplied by candidates in their application (Cover Letter and CV) will be used to shortlist for interview.

Applications from non-EEA citizens are welcomed. However, eligibility is determined by the Department of Business, Enterprise and Innovation and further information on the Highly Skills Eligible Occupations List is set out in Schedule 3 of the Regulations https://dbei.gov.ie/en/What-We-Do/Workplace-and-Skills/Employment-Permits/Employment-Permit-Eligibility/Highly-Skilled-Eligible-Occupations-List/ and the Ineligible Categories of Employment are set out in Schedule 4 of the Regulations https://dbei.gov.ie/en/What-We-Do/Workplace-and-Skills/Employment-Permits/Employment-Permit-Eligibility/Ineligible-Categories-of-Employment/ . Non-EEA candidates should note that the onus is on them to secure a visa to travel to Ireland prior to interview. Non-EEA candidates should also be aware that even if successful at interview, an appointment to the post is contingent on the securing of an employment permit.

Equal Opportunities Policy

Trinity is an equal opportunities employer and is committed to 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. On that basis we encourage and welcome talented people from all backgrounds to join our staff community. Trinity's Diversity Statement can be viewed in full at https://www.tcd.ie/diversity-inclusion/diversity-statement.

Pension Entitlements

This is a pensionable position and the provisions of the Public Service Superannuation (Miscellaneous Provisions) Act 2004 will apply in relation to retirement age for pension purposes. Details of the relevant Pension Scheme will be provided to the successful applicant.

Applicants should note that they will be required to complete a Pre-Employment Declaration to confirm whether or not they have previously availed of an Irish Public Service Scheme of incentivised early retirement or enhanced redundancy payment. Applicants will also be required to declare any entitlements to a Public Service pension benefit (in payment or preserved) from any other Irish Public Service employment.

Applicants formerly employed by the Irish Public Service that may previously have availed of an Irish Public Service Scheme of Incentivised early retirement or enhanced redundancy payment should ensure that they are not precluded from re-engagement in the Irish Public Service under the terms of such Schemes. Such queries should be directed to an applicant's former Irish Public Service Employer in the first instance.

Application Procedure