



Post Specification (Comp: 034233)

Post Title:	Assistant Professor in Computer Science (Artificial Intelligence)
Post Status:	Tenure Track*
Department/Faculty:	Discipline of Artificial Intelligence, School of Computer Science and Statistics, Faculty of Engineering, Mathematics and Science, Trinity College Dublin, The University of Dublin
Location:	O'Reilly Institute, Trinity College Dublin, the University of Dublin, College Green, Dublin 2, Ireland
Reports to:	Head of School, Computer Science and Statistics
Salary:	Appointment will be made on the Lecturer salary scale at a point in line with Government Pay Policy [€34,813 to €83,556 per annum]. Appointment will be made no higher than at point 8 [€49,422 per annum]
Hours of Work:	Hours of work for academic staff are those as prescribed under Public Service Agreements. For further information please follow the link below: http://www.tcd.ie/hr/assets/pdf/academic-hours-public-service-agreement.pdf
Closing Date:	12 Noon (Irish Standard Time), 7 th January 2020

***This position is a Tenure Track Position, which is five years in the first instance – permanency is subject to satisfying the tenure requirements.**

The successful candidate will be expected to take up the position as soon as possible. Interviews are expected to take place at Trinity College Dublin in February 2020.

Post Summary

The School of Computer Science and Statistics is seeking to appoint an Assistant Professor in Computer Science (Artificial Intelligence). The successful candidate will be an outstanding researcher and teacher who has a strong international research track record and the potential to become a research leader. A strong commitment to teaching, research excellence, developing academic and industrial research partnerships, and the ability to establish a dynamic, high impact, world-class research programme are essential. Candidates in all human facing aspects of AI will be considered. Applications are encouraged from candidates working in areas including, but not limited to: Information Retrieval (including proactive, interactive and conversational IR); forms of digital engagement that are task-oriented, personalised, context-aware, explainable and trustworthy; and approaches to digital engagement employing deep neural networks or knowledge graphs. The post holder will join a vibrant School, top ranked in Ireland, and will be affiliated with the ADAPT Research Centre for Digital Content Technology which pioneers 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.

The successful applicant must have a PhD in Computer Science or a related discipline. The School particularly welcomes applicants who will play an active role in interdisciplinary research within the School, E3 and the University. The E3 initiative is an ambitious project to expand education and research activities across three of its Schools: Computer Science and Statistics, Engineering, and Natural Sciences.

The School will support the successful applicant with funding to recruit one PhD student. Furthermore, the postholder can seek further PhD funding under the SFI funded Centres for Research Training (CRTs) hosted in the School which all offer PhD positions in AI-related areas. The successful candidate can join the SFI funded ADAPT Research Centre for Digital Content Technology and benefit from its large and diverse streams of research funding. With its CRTs and SFI Research Centres, the School offers a supportive environment for researchers to advance their careers.

Further Information

Informal enquiries about this post should be made to dave.lewis@scss.tcd.ie

Standard Duties and Responsibilities of the Post

Research:

As part of research duties, the appointee is required to engage in research and/or other creative and innovative activity as appropriate to the discipline. The appointee is required to disseminate their research in academic publications, recognised conferences, or other outlets as appropriate. The appointee is encouraged to engage in initiatives to seek funding for research in their own field and/or interdisciplinary or multidisciplinary research as appropriate. The appointee is also required to be available to participate in postgraduate research supervision including student recruitment, thesis definition, preparation, advice and regular advisory and guidance meetings.

Teaching:

As part of normal teaching duties, the appointee is obliged to give instruction and supervision, as directed by the Head of School (or designated Head of Discipline), to undergraduate and postgraduate students of the University in courses and programmes organised by the School. It is expected that the candidate will be responsible for delivering teaching in digital engagement, machine learning, information management and knowledge engineering. Such duties include curriculum and course design, preparation and delivery of lectures, tutorials and general examination and other assessment duties. The appointee is also required to be available to students for academic guidance and advice. In some disciplines, academic activities may also include laboratory, workshop or clinical instruction, supervision of fieldwork, site visits and other off-campus activities.

Contribution and Scholarly Activity:

As part of the contribution to the School and University, the appointee is required to participate in academic administration at School, and/or University levels. In representing the University externally, the appointee is required to maintain the highest professional standards. The appointee is also required to commit to engage in scholarly activity such as,

but not limited to, refereeing of journals, external examining, membership of learned societies, advisory bodies and peer review panels. As part of the contribution to the School and University, the appointee is required to participate in academic administration at School level (as directed by the Head of School) and/or at University levels.

Person Specification

Qualifications

Successful candidate must have a PhD in Computer Science or a related discipline.

Knowledge and Experience

Research:

- Proven record of excellence in artificial intelligence research demonstrated by a strong publication record in peer-reviewed conferences and journals.
- Proven record and ability to contribute to the field of computer science in human-facing aspects of AI. Aspects of interest include but are not limited to: Information Retrieval (including proactive, interactive and conversational IR); forms of digital engagement that are task-oriented, personalised, context-aware, explainable and trustworthy; and approaches to digital engagement employing deep neural networks or knowledge graphs.
- Demonstrate research plans which complement the strategic plans of the School of Computer Science and Statistics, E3 and the ADAPT Centre.
- Ability to attract external research funding.
- Ability for research collaboration with industry and across disciplines.

Teaching:

- A demonstrable ability to provide high quality lectures and practical classes in computer science to undergraduate and postgraduate students.
- Excellent communication and interpersonal skills.
- A commitment to excellence in teaching.
- Ability to supervise undergraduate projects and postgraduate dissertations.
- Ability to recruit and supervise research postgraduate students.

- Ability to develop new modules and teaching material.
- An ongoing commitment to using new teaching media.
- Ability to work collaboratively and effectively in an inter and multidisciplinary environment..

Contribution and Scholarly Activity:

- Willingness to contribute to the Discipline, School, E3, SFI Research Centres, College and to the wider community.
- **The ability to participate in academic administration at School, and/or University levels.**
- Ability to co-ordinate, manage and develop modules and courses in the School.
- Excellent organisational and administrative skills.
- Ability to establish targets and goals to support School, College and Research Centre strategies.
- A commitment to student care, advancing gender equality and equal opportunities.
- Ability to organise research seminars, recruitment initiatives and other activities.

Skills & Competencies

- Ability to maintain high professional standards
- Ability to work effectively and efficiently
- Ability to be flexible when necessary
- A strong team player
- Career driven, enthusiastic and motivated.

A commitment to own professional development

Application Information

Applicants should provide the following information

1. A comprehensive curriculum vitae, including a full list of publications.
2. The names and contact details (i.e. addresses, e-mail, etc.) of three referees.

3. A research plan summarising research to be carried out in the next two years and including sources of funding – max 2 pages.
4. A teaching statement summarising teaching experience and approach – max 2 pages.

PLEASE NOTE: Candidates who do not submit this additional information may not be considered for shortlisting

Candidates should note that the interview process for this appointment will include the delivery of a presentation to the School.

Further Information for Applicants

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

Artificial Intelligence Discipline

This post will be in the Artificial Intelligence (AI) Discipline of the School of Computer Science and Statistics. The goal of the AI Discipline is to advance state-of-the art use of intelligence in systems by tackling theoretic and engineering challenges through novel applications. The Discipline’s main focus is on computational issues related to perception; cognition; decision; and interaction by, and between, systems and their human users. These are explored through a variety of novel applications in the health informatics, content & knowledge management, entertainment, e-learning and telecommunications management domains. Its key research areas are: linguistic analysis; logic-based representation of knowledge; semantic modelling; machine learning; knowledge engineering and visualisation; and user interaction.

The AI Discipline is organised into two active research groups: Knowledge and Data Engineering (KDEG); and Computational Linguistics Group (CLG). It hosts a number of research centres: Centre for Health Informatics; the Enterprise Ireland Learnovate Technology Centre

and the SFI ADAPT Research Centre. Its academics lead the Trinity research theme of Digital Engagement and co-lead the theme of Digital Humanities.

SFI ADAPT Centre for Digital Content Technology Research

ADAPT is Ireland's global centre of excellence for digital media technology. Led by TCD, it combines the expertise of researchers at four universities (Trinity College Dublin, Dublin City University, University College Dublin, TU Dublin, Maynooth University, Athlone Institute of Technology and Cork Institute of Technology) with that of its industry partners to produce ground-breaking digital content innovations.

ADAPT brings together more than 220 researchers who collectively have won more than €100m in funding and have a strong track record of transferring world-leading research and innovations to more than 140 companies. With €50M in research funding from Science Foundation Ireland and industry, ADAPT is seeking talented individuals to join its growing research team. Our research and technologies will continue to help businesses in all sectors and drive back the frontiers of future Web engagement.

School of Computer Science and Statistics

The School was established in July 2005 following the merger of the Department of Computer Science and the Department of Statistics. Statistics celebrated its 50th anniversary in 2017 and Computer Science in 2019. Today, the School comprises five academic disciplines (1) Artificial Intelligence (2) Network and Distributed Systems (3) Graphics and Vision (4) Software and Systems and (5) Statistics and Information Systems.

The School has 65 academics, 40 support staff and over 100 research staff. The School is internationally recognised for the quality of its research and teaching and is ranked in the top 100 Computer Science Schools worldwide (QS Subject Rankings 2019) and is the highest ranked in Ireland.

The School offers a wide range of undergraduate and taught postgraduate degree programmes and has approximately 1,200 registered students. In addition, the School has over 120 PhD students.

Research expertise in areas such as digital content, telecommunications, computer vision and ubiquitous computing, combined with cutting edge statistical learning research has provided a rare environment in which members of SCSS exploit the emergence of data and its analysis as a driver in many fields of computer science and statistics.

The School hosts two Science Foundation Ireland (SFI) Research Centres: ADAPT and CONNECT, hosts the ENABLE SFI research spoke on the Internet of Things and the FinTech Fusion SFI research spoke, and is a partner in a further two SFI Research Centres (Insight and Lero). Four TCD-wide multidisciplinary research themes, namely Creative Technologies, Digital Humanities, Digital Engagement, and Smart Sustainable Cities are led by members of the School. The School currently coordinates seven European Commission projects and is partner in a further eight. The School has signed research contracts in excess of €50 million over the last three years from a range of national and international agencies such as SFI, Enterprise Ireland and the European Commission's Horizon 2020 Framework Programme.

For further information, please visit <http://www.scss.tcd.ie/>

The E3 Vision

Trinity College Dublin is embarking on an ambitious project to expand education and research activities across three of its Schools: Computer Science and Statistics, Engineering, and Natural Sciences. Recognising the importance for humanity of addressing the global problem of sustainable technological development, the expansion of the three Schools is being executed as a single strategic activity - the E3 initiative.

The E3 initiative is premised on the realization that:

- human inquisitiveness is unquenchable and the need and desire for advanced technologies is a positive characteristic of the human spirit; and

- the natural capital of the planet is finite and should be used to provide flows of goods and services sustainably and equitably.

With the E3 initiative, Trinity promotes the vision of a society where the interdependence between technological innovation and our natural capital is advanced by world-leading research, education and entrepreneurship. The E3 initiative will position Ireland at the forefront of research in Science, Technology, Engineering, and Mathematics (the STEM disciplines), that are crucial for future economic development. It will educate engineers and scientists for employment in existing and new technology sectors, equip them with the skills and attributes to direct the creation of new businesses, and place Ireland in a leading role globally for the quality of graduates in the STEM disciplines.

The School of Computer Science and Statistics, as part of the E3 initiative, is expanding its research and teaching in the key area of Artificial Intelligence.

The E3 initiative will be without precedent in Ireland, and among the first internationally to integrate engineering, technology and scientific expertise, at scale, to address some of the grand challenges facing our country and our world.

Trinity College Dublin, the University of Dublin

Trinity is Ireland's premier university, with a proud tradition of excellence stretching back to its foundation in 1592. The oldest university in Ireland, and one of the oldest in Europe, today Trinity sits at the intersection of the past and the future, and is ideally positioned as a major university in the European Union. Our 47-acre campus is located in the heart of Dublin city centre and is home to historic buildings dating from the University's establishment, as well as some of the most cutting-edge teaching and research facilities in Ireland. Students at Trinity benefit from a unique educational experience across a range of disciplines in our three faculties – Arts, Humanities, and Social Sciences; Engineering, Mathematics and Science; 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.

Trinity has developed [18 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. These internationally recognised themes include such diverse areas as Cancer, Immunology, Telecoms, Identities in Transformation, Nanoscience, Neuroscience, and Making Ireland. Researchers from across the University work together in innovative ways to develop new and exciting approaches to their research and explore the frontiers of knowledge in the 21st century. In creating these dedicated research themes, Trinity's researchers are able to become a more powerful force on the global stage, successfully competing for large-scale grants and attracting top students and faculty to the University. Trinity is home to Ireland's first purpose-built Nanoscience research institute, CRANN, which opened in January 2008. This state-of-the-art facility houses 150 scientists, technicians, and graduate students in specialised laboratories, fostering creative innovations that have seen Trinity's researchers make significant breakthroughs.

The Trinity Long Room Hub for Arts and Humanities Research Institute is the University's flagship institute for research in the Arts and Humanities, providing a world-class environment for cross-disciplinary collaborative projects. The Long Room Hub provides a central location through which the University's internationally respected Arts and Humanities research can become more visible, demonstrating its relevance for contemporary and future societies.

Researchers from across the University regularly participate in debates on topical issues facing the world today. As well as operating an International Visiting Research Fellowship programme, the Long Room Hub also hosts major EU-funded Digital Humanities projects.

One of the most instantly recognised parts of Trinity's campus is the famous Old Library, home to the historic Book of Kells as well as other internationally significant holdings in manuscripts, maps, and early printed material. Trinity's Library is the largest research library in Ireland and is an invaluable resource to Trinity's students and research community. Built up over the four centuries of the University's existence, the Library's collections have benefitted from its status as a Legal Deposit library for the past 200 years, granting Trinity the right to claim a copy of every book published in Ireland and the UK. At present, the Library's holdings span approximately 4.25 million books, 22,000 printed periodical titles, and access to 60,000 e-journals and 250,000 e-books.

Trinity attracts top students from Ireland and abroad and prides itself on the consistently high standard of student admitted to the University every year. These students are drawn to Trinity for the excellence of our research-led teaching and for the quality and prestige a degree from this University confers. Trinity has also pioneered accessibility to education in Ireland, becoming the first university in the country to reserve 15% of its undergraduate places for students from non-traditional learning groups. Trinity is the top-ranked European university for student entrepreneurship and Europe's only representative in the world's top-50 universities.

Our alumni have gone on to shape the history of Ireland and of Western Europe in a wide range of fields. These include such notable figures as Jonathan Swift, Oscar Wilde, William Rowan Hamilton, Edmund Burke, William Stokes, Denis Burkitt, Louise Richardson, Lenny Abrahamson, and Anne Enright. Three of Trinity's graduates have been awarded Nobel prizes: Ernest Walton for Physics in 1951; Samuel Beckett for Literature in 1968; and William Campbell for Physiology / Medicine in 2015. Trinity also counts the first female President of Ireland among its alumni in Mary Robinson, as well as other notable former Presidents Douglas Hyde and Mary McAleese. At Trinity we are justifiably proud of our tradition, and we strive to uphold this excellence as we face the demands of the 21st century.

Ranking Facts

Trinity is the top ranked university in Ireland. Using the QS methodology, the University is ranked 104th in the world and using the Times Higher Education World University Rankings methodology Trinity is 117th in the world.



Overall

- Trinity is Ireland's No.1 University in the QS World University Ranking, THE World University Ranking and the Academic Ranking of World Universities (Shanghai).
- Trinity is ranked 104th in the World, and 36th in Europe, in the 2018/2019 QS World University Ranking.
- Trinity is ranked in the Top 120 for Graduate Employability in the QS 2018 Rankings.
- Trinity is in the Top 50 most innovative universities in Europe according to Reuters.¹
- Between 2010 and 2015, Trinity was ranked the top university in Europe for entrepreneurship according to Pitchbook's independent analysis.²

¹ <http://www.reuters.com/article/us-innovative-stories-europe-idUSKCN0Z00CT>

² <http://pitchbook.com/news/reports/2015-2016-pitchbook-universities-report>

Internationalisation

- Trinity is ranked 52nd in the world in the THE World University Ranking for international outlook.

Research Performance

- Of the 981 institutions included in the THE World University Rankings for 2017, Trinity is in the top 15% internationally for research performance.
- Trinity is ranked in the top 15% internationally by QS for citations.

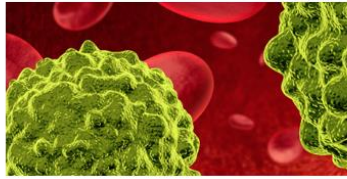
In the QS World University Subject Rankings:

- Trinity is ranked in the top 50 worldwide in four subject areas according to the QS World University Subject Rankings 2018. The University is ranked in the top 100 globally for 20 subjects overall.
- Trinity's Top 50 subjects include Nursing (25th), Classics (28th), English (28th) and Politics (43rd).
- Trinity is ranked in the top 100 for each of the following 16 subjects: History, Languages, Philosophy, Theology, Computer Science, Biology, Medicine, Pharmacy, Chemistry, Geography, Materials Science, Education, Law, Social Policy, Sociology and Sport.
- The University is ranked in the top 100 for three broad subject areas: Arts & Humanities (57th), Life Sciences & Medicine (87th), and Engineering & Technology (89th).

Research Themes



Ageing



Cancer



Creative Arts Practice



Creative Technologies



Digital Engagement



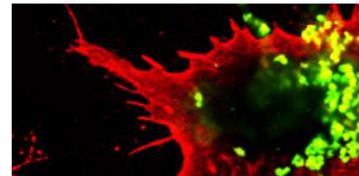
Digital Humanities



Genes & Society



Identities in Transformation



Immunology, Inflammation & Infection



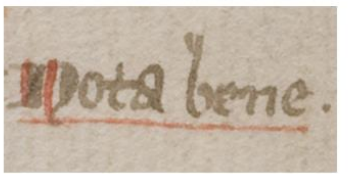
International Development



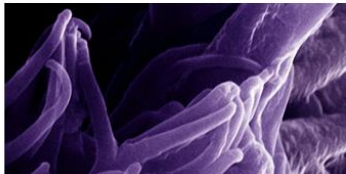
International Integration



Making Ireland



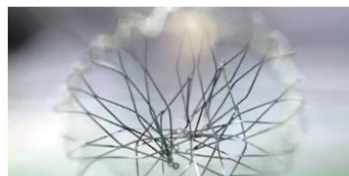
Manuscript, Book and Print Cultures



Nanoscience



Neuroscience



Telecommunications



Smart Sustainable Planet



Next Generation Medical Devices

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 applicants are unavailable, reserves may be drawn from a shortlist. Outcomes of interviews are notified in writing to applicants 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 applicants 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 Jobs, Enterprise and Innovation and further information on the Highly Skills Eligible Occupations List is set out in Schedule 3 of the Regulations <https://www.djei.ie/en/What-We-Do/Jobs-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://www.djei.ie/en/What-We-Do/Jobs-Workplace-and-Skills/Employment-Permits/Employment-Permit-Eligibility/Ineligible-Categories-of-Employment/>. Non-EEA applicants should note that the onus is on them to secure a visa to travel to Ireland prior to interview. Non-EEA applicants 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

Applicants should submit a full Curriculum Vitae to include the names and contact details of 3 referees (including email addresses), together with a cover letter (1x A4 page), a Teaching Statement and Research Plan as outlined in the Application Process above.

APPLICATIONS WILL ONLY BE ACCEPTED BY E-RECRUITMENT:

<http://jobs.tcd.ie>

If you have any application queries, please contact:

Yasmin Madigan

Human Resources, House No. 4,

Trinity College Dublin, the University of Dublin

Tel: +353 1 896 3327

Email: madigany@tcd.ie



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