Post Specification

Post Title:	PhD Studentship
Post Status:	Fixed-term Contract or Specific Purpose Contract – Full-time or Part-time.
Research Group / Department / School:	School of Computer Science and Statistics, Trinity College Dublin, the University of Dublin
Location:	School of Computer Science and Statistics, Trinity College Dublin, the University of Dublin College Green, Dublin 2, Ireland
Reports to:	Prof. John D. Kelleher
Terms & Conditions:	PhD Stipend (non-taxable) at €22,000 per annum and EU Fee covered
Hours of Work:	37.5 hours per week
Closing Date:	12 Noon (GMT), 1st July 2024

NOTE: Applicants must have been resident in an EU member state for 3 out of the last 5 years to be eligible for EU fees

Post Summary

PhD Project: Understanding the Modelling the Dynamics of Stroke Risk Across the Life-course of Women

Being able to predict stroke risk (both for a first ever stroke and a recurrent stroke), and better understanding of the factors that determine stroke risk, could enable better targeting of prevention strategies. Stroke risk factors can broadly be divided into 'fixed' and 'modifiable'. Fixed factors include *age* and *sex*, whilst modifiable/treatable risk factors include *smoking*, *hypertension*, *diabetes*, *physical activity* and *diet*.

The profile of stroke risk is different in men and women because of several different factors including hormonal and pregnancy-related factors. Yet in clinical practice, primary and secondary stroke prevention (and also prevention for cardiovascular disease) is addressed in similar ways for men and women. The focus of this project is on analysing the effect of women-specific life events (e.g., oral contraception, pregnancy, HRT, menopause, *etc*.) on stroke risk. The overall vision is to create a stroke risk prediction tool for women (similar to those that exist for women with breast cancer[1]) to predict the risk of first-ever and recurrent stroke; this could allow women to make better-informed choices about medical treatment and lifestyle. The research will adopt a data-driven approach, involving data science/statistics/machine learning methods, and will be informed by clinical literature and practice.

Standard Duties and Responsibilities of the Post

The successful candidate will be registered to the structured PhD programme in the School of Computer Science and Statistics. They will be required to work full time on their PhD which includes mandatory demonstrating duties and optional teaching activities. The appointed applicants will undertake academic research under the direction of the PI. The PhD candidate's specific duties will include:

- Undertake research leading to a PhD;
- Produce academic papers and reports throughout the course of their PhD;
- Meet with supervisors regularly, attend and contribute to research group meetings, journal clubs, and communicate research findings at national and international conferences.
- Collaborate with colleagues in the School and the ADAPT research centre;

Funding Information

The selected candidate will receive an annual non-taxable stipend of €22,000. EU full time fees will be covered. This role is funded by the School of Computer Science and Statistics at Trinity College Dublin. The PhD will start in September 2024.

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[1] https://breast.predict.nhs.uk

Person Specification

Qualifications

The ideal candidate should have, or expect to shortly obtain, a first or upper second-class honours (2:1) degree in computer science or related discipline. A Masters degree in a related field will be desirable.

Knowledge & Experience (Essential & Desirable)

- Expertise in statistics and/or machine learning (essential)
- Experience in working with clinical/healthcare data (desirable)

Skills & Competencies

- Excellent interpersonal and communication skills
- Excellent written English
- Ability to work well both independently and in a team environment
- Excellent organisational and administrative skills, including a proven ability to work to deadlines.

Application Procedure

Applicants should submit:

- A cover letter, to include specific details and evidence of relevant experience/skills and
- the motivation for pursuing this research area (~1 page max).
- A full Curriculum Vitae
- Contact information including the names and contact details of two referees (including email addresses).
- Evidence of English language proficiency if required (see www.tcd.ie/study/apply/admission- requirements/postgraduate/)

to:-

Prof. John D. Kelleher

john.kelleher@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 1st in Europe for Producing Entrepreneurs for the 7th year in a row and Europe's only representative in the world's top-50 universities
(Pitchbook 2021-2022).

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.

Application Procedure