



## Job Description

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<b>Comp ID:</b>	(...)
<b>Job Title:</b>	Assistant Professor in Computer Science (Software and Systems)
<b>School/Department:</b>	School of Computer Science and Statistics
<b>Job Category and Level:</b>	Academic, Assistant Professor (Tenure-Track)

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### The Purpose of the Role

The School of Computer Science and Statistics at Trinity College Dublin is a collegiate, friendly, and research-intensive centre for academic study and research excellence. The School has been ranked #1 in Ireland, a top School in Europe, and top 100 Worldwide (QS Subject Rankings 2018, 2019, 2020, 2021, 2023).

The School of Computer Science and Statistics is seeking to appoint an Assistant Professor in Computer Science, who will join the Discipline of Software and Systems. The Assistant Professor will be a full faculty member, and as such will be expected to innovate in both research and teaching, to assist in the administration and mission of the School and contribute to the wider research community. The appointee should have the potential to develop into a leader in their particular field of research with a world-class research programme. The successful candidate will be expected to contribute to undergraduate and/or postgraduate teaching in the School, particularly in areas of Software and Systems.

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### Context

The successful candidate will be an excellent researcher and lecturer with an emerging international research track-record and clear potential for research leadership. They should have a strong commitment to research-led undergraduate and postgraduate teaching and a demonstrated capacity/potential to attract research funding and develop a world-class research programme.

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Applications are encouraged from candidates working in areas including, but not limited to: software engineering (formal methods, model-driven software engineering, empirical software engineering, automated software engineering, software analysis, configuration and optimisation, design-space exploration), programming languages (language design, concurrency, type systems, compilers), and computer systems (parallel computing, embedded systems, computer architecture, accelerators for AI and other emerging applications, quantum computing).

The successful candidate will play an important role in teaching core Computing Systems to undergraduate Computer Science and Computer Engineering students.

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## Main Responsibilities

### 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 appointee will be responsible for delivering teaching in Software and Systems related modules such as Software Engineering, Software Analysis, Software Testing, Operating Systems, Computer Architecture, as well as introductory topics in Computer Science and Software Systems.

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.

### Research

The appointee should have a desire to become a *thought leader* and a *researcher of repute* within their chosen research area. As part of their research duties, the appointee is *required* to engage in research and/or other creative and innovative activity as appropriate to the Discipline. The

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appointee is required to disseminate their research in high impact academic publications: journals, conferences, or other outlets as appropriate.

The appointee is encouraged to actively pursue initiatives by which to seek/secure funding for research in their own field and/or interdisciplinary or multidisciplinary research as appropriate. The appointee is also required to participate in postgraduate research supervision including student recruitment, thesis definition, preparation, advice and regular advisory and guidance meetings.

### **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 level (as directed by the Head of School), and/or University level. 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 for journals, external examining, membership of learned societies, advisory bodies and peer review panels.

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### **Person Requirements**

The role-holder will require the following knowledge, skills and attributes for successful performance in the role.

### **Qualifications**

- The successful candidate must have a PhD in Computer Science or a related discipline.

### **Knowledge & Experience**

The successful candidate will be expected to clearly demonstrate the following:

#### **Teaching**

*Essential:*

- Ability to provide lectures and practical classes in Computer Science to undergraduate and postgraduate students.
- Evidence of a personal commitment to excellence in teaching.

- Excellent communication and interpersonal skills.
- Experience of supervising undergraduate and postgraduate dissertations.
- Experience of developing new modules and/or teaching material.

*Desirable:*

- Experience of using innovative teaching methods.
- Evidence of high-quality teaching.
- Experience of working collaboratively and effectively in an inter and multidisciplinary environment.

## **Research & Scholarship**

*Essential:*

- Proven record in research publication, supervision, and a demonstrated ability to contribute to the field of Software and Systems.
- Demonstrate research plans that complement the strategic plans of the School of Computer Science and Statistics.
- Evidence of, or potential to establish, a sustained record of high-quality research and publication in Software and Systems.
- Experience of recruiting and supervising research postgraduate students.
- Ability to engage in research collaboration with industry and across disciplines.
- Participation in research conferences and seminars.

*Desirable:*

- Demonstrated ability to secure competitive research funding.
- Demonstrated ability to lead and oversee research projects.
- Evidence of research collaboration with industry, society and universities.
- Experience with international and cross-cultural research collaboration.
- Record of innovation demonstrated through patents or industrial impact.

## **Administration, Contribution to University and Engagement with Discipline & Society**

Desirable:

- Experience of reviewing papers for scholarly journals and conferences.
- Experience of organising scholarly events.
- Experience of engagement with the public on matters of research or education.
- Experience of contributing to the wider work of a university or research institution.
- Leadership roles in organising workshops or academic events.
- Experience mentoring early-stage researchers or coordinating research teams.

## **Skills**

- Career driven, enthusiastic and highly motivated.
- Excellent communication skills.
- Good organisational skills.
- Strong leadership skills.

## **Personal attributes**

- Ability to work as a member of a team.
- Honesty and integrity.
- Ability to be flexible when necessary.
- Willingness to contribute to the Discipline, School, College and the wider community.
- Ability to take the initiative.
- A commitment to own professional development.

In addition, candidates will be assessed on their potential contribution to the School, College and the wider community.

## **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. address, e-mail, etc.) of three referees.

3. A research plan summarising the 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**

For further information about the School of Computer Science and Statistics, see:

<https://www.scss.tcd.ie//>

For further information about Trinity College

Dublin, see: <https://www.tcd.ie/>

<https://www.youtube.com/watch?v=DbZALsDfLuU>

<https://www.youtube.com/watch?v=3YN6asK2ixw>

Candidates wishing to discuss the post informally and in confidence should email Dr Anthony Ventresque, Head of the Discipline of Software and Systems: [Anthony.Ventresque@tcd.ie](mailto:Anthony.Ventresque@tcd.ie) and/or Professor Gregory O'Hare, Head of School of Computer Science & Statistics: [Gregory.OHare@tcd.ie](mailto:Gregory.OHare@tcd.ie)