Post Specification

<table>
<thead>
<tr>
<th>Post Title:</th>
<th>Postdoctoral Research Fellow in Machine Learning for Personalized Mobility as a Service</th>
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<tbody>
<tr>
<td>Post Status:</td>
<td>Specific Purpose Contract – Full Time (2 year duration)</td>
</tr>
<tr>
<td>Research Group / Department / School:</td>
<td>School of Computer Science and Statistics, Trinity College Dublin, The University of Dublin</td>
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<td>Location:</td>
<td>Trinity College Dublin, the University of Dublin College Green, Dublin 2, Ireland</td>
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<td>Salary:</td>
<td>Commensurate with experience and achievement (up to point 5 on the Level 2A SFI Team Member Budget Scale – February 2022)</td>
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<tr>
<td>Reports to:</td>
<td>Dr. Melanie Bouroche</td>
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<tr>
<td>Hours of Work:</td>
<td>40 hours per week</td>
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<tr>
<td>Closing Date:</td>
<td>31(^{st}) May 2022.</td>
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Please note: The successful applicant will be expected to take up post as soon as possible.

Post Summary

We are seeking to recruit a Postdoctoral Research Fellow to work on Machine Learning for Personalized Mobility as a Service, within CONNECT - the Science Foundation Ireland Research Centre for Future Networks and Communications in collaboration with the E3 Kinsella SUMMIT (SUstainable MobIItv Models for a Just Transition) initiative.

This project will investigate the development of a Mobility-as-a-Service platform to support the delivery of integrated and personalized mobility services at campus scale. The platform will support personalized on-demand travel with interfaces to transport providers, to support service delivery and provisioning, on one side and to individual users on the other side to offer journey planning and booking services. The successful candidate will be expected to contribute to integrating and catalysing existing and new activity in this area into a larger initiative, including developing relationships with diverse stakeholders and preparing further research funding proposals.
The position will be based in the CONNECT research centre at Trinity College Dublin, Ireland. The researcher will also be part of the School of Computer Science and Statistics in TCD. The position will be under the direction of Dr. Mélanie Bouroche. For informal inquiries please contact Melanie.Bouroche@tcd.ie.

**Required Qualifications**

The successful candidate must have a PhD in Computer Science, Computer Engineering, Electronic Engineering, or a related field. The post is applicable to both new and experienced PhD holders, and salary will be commensurate with experience and achievement. The successful candidate will join an inter-disciplinary team of highly-skilled and innovative researchers in Sustainable Mobility.

**Essential Knowledge & Experience**

- Expertise in machine learning for large-scale systems, in particular deep and/or reinforcement learning,
- Expertise in distributed computing,
- Excellent software engineering and programming skills,
- Established track record of publication in leading journals/conferences, on relevant topics,
- Excellent written and oral communication skills,
- Experience of project proposal writing,
- The ability to work well in a group,
- Strong self-motivation and willingness to learn.

**Desirable Knowledge & Experience**

Experience in one or more of the following areas, is considered is preferable:

- Intelligent transport systems/intelligent mobility,
- Optimisation,
- Industry collaboration.

**Post Funding**

The post is funded by Science Foundation Ireland (SFI), as part of CONNECT the SFI research centre for Future Networks and Communications.

**Post Location**
The post will be hosted at the CONNECT (https://connectcentre.ie/) centre, Ireland’s largest telecommunications research centre. The Centre carries out industry-informed research focusing on wireless and optical networks of the future with a strong emphasis on the technologies that will underpin these networks. We pride ourselves in carrying out research that is of the highest quality and that has international impact. We also pride ourselves in being an inclusive, diverse, creative, and friendly place to work.

Application Procedure

Candidates should submit a cover letter together with a full CV and contact details of 2 referees (including email addresses), no later than the 31st of May 2022, via email to: Melanie.Bouroche@tcd.ie. Dr. Melanie Bouroche, CONNECT Research Centre, Trinity College Dublin.

Trinity College Dublin, the University of Dublin

Trinity is Ireland’s leading university and is ranked 108th in the world (QS World University Rankings 2020). 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 five 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 is the top ranked university in Ireland and ranked 108th in the world (QS World University Rankings 2020). Trinity ranks in the top 50 in the world on 4 subjects and in the top 100 in 18 subjects (QS World University Rankings by Subject 2020). Full details are available at: [www.tcd.ie/research/about/rankings](http://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
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 2 referees (including email addresses), no later than the 31st of May 2022, via email to: Melanie.Bouroche@tcd.ie