Post Specification (SRE-MAP)

<table>
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<tr>
<th>Post Title:</th>
<th>Senior Research Engineer for Computer Vision Spin-out</th>
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<tr>
<td>Post Status:</td>
<td>Specific Purpose Contract – 18 months Full-time</td>
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<tr>
<td>Department/Faculty:</td>
<td>ADAPT, School of Computer Science and Statistics, Trinity College Dublin, the University of Dublin</td>
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<tr>
<td>Location:</td>
<td>Stack B, IFSC, Custom House Quay North Dock, Dublin 1</td>
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<td>Reports to:</td>
<td>Prof. Rozenn Dahyot</td>
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<tr>
<td>Salary:</td>
<td>Appointment will be made on the SFI Post Doctoral Researcher scale at a point in line with Government Pay Policy [€54,717 to €57,938] per annum.</td>
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<td>Hours of Work:</td>
<td>40</td>
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<tr>
<td>Closing Date:</td>
<td>12 Noon (Irish Standard Time), 14th Feb 2020</td>
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The successful candidate will be required to take up the post as soon as possible.

Post Summary
The Science Foundation Ireland ADAPT Research Centre (adaptcentre.ie) seeks to appoint a Senior Research Engineer to join a team of researchers in the development of a robust software platform based on research in geolocation of objects using latest techniques in computer vision and machine learning.

This is an exciting opportunity to join a team which has been funded by Enterprise Ireland to commercialise research in image processing and GIS for the detection and mapping of assets (https://www.adaptcentre.ie/case-studies/aimapit) emanating from the research of Prof. Rozenn Dahyot (www.scss.tcd.ie/Rozenn.Dahyot). We are searching for an experienced product engineer to help bring this technology to market. As technical lead, you will work be responsible for overseeing AIMapIT’s strategic direction and technical roadmap.

There is significant market interest in the current technology thus the platform being developed will be highly influenced by end users. This unique opportunity addresses challenges in image processing for real world applications in the GIS market. The existing research prototypes will be extended to allow services to be offered via the cloud at Technology Readiness Level 8 – 10. The ideal candidate will have 2-3 years product development experience in an industrial setting and be willing to lead a team in the development of the platform.
Informal enquiries about this post should be made to by e-mail to: Ms Monica Lechea, Office Manager (monica.lechea@adaptcentre.ie)

Standard Duties and Responsibilities of the Post

- Lead the project team in designing and implementing a robust software platform based on existing deep learning prototypes and computer vision techniques for object detection and geolocation of objects in street level imagery under the supervision and direction of the Principal Investigator (PI).
- Increase the Technology Readiness Level of research prototypes to prepare for experimental industrial application.
- Work with ADAPT industry partners to define requirements, troubleshoot issues and conduct demonstrations.
- Report on and present demos of code to relevant stakeholders within ADAPT, Enterprise Ireland and to trial users.
- Work with our end users, partners, and other stakeholders of AIMapIT to develop the roadmap and strategy for this asset mapping system.
- Report on progress at meetings and in writing to ADAPT Centre Management and Enterprise Ireland.

Funding Information

The position is funded through an Enterprise Ireland Commercialisation Fund award whose principal goal is to develop a minimum viable product for the GIS market.

Person Specification

The successful candidate should be proactive, comfortable with high levels of autonomy and able to thrive in uncertain and ambiguous environments. Candidates should be motivated by difficult problems and eager to bring a new product to market.

Qualifications

- Candidates appointed to this role must have a BSc. and MSc. in Computer Science / Engineering or similar with product development experience in a commercial setting.

Knowledge & Experience (Essential & Desirable) Essential

- Demonstrated ability to drive the strategic and technical direction of the product.
- Excellent programming skills and modern machine learning frameworks.
Experience training and deploying machine learning models, with a strong focus on computer vision as well as traditional image processing techniques.

Strong communication and interpersonal skills, both written and verbal.

Excellent written and oral proficiency in English.

Desirable

- Experience of high-performance computing facilities.
- Exposure to commercialisation of research.
- Prior startup experience.

Skills & Competencies

- Proven ability to prioritise workload and work to exacting deadlines.
- Excellent problem solving abilities.

Further Information for Applicant

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.

URL Link to ADAPT Centre

https://www.adaptcentre.ie/
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

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.


²
Research Themes
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<th>Ageing</th>
<th>Cancer</th>
<th>Creative Arts Practice</th>
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<tr>
<td>Creative Technologies</td>
<td>Digital Engagement</td>
<td>Digital Humanities</td>
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<tr>
<td>Genes &amp; Society</td>
<td>Identities in Transformation</td>
<td>Immunology, Inflammation &amp; Infection</td>
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<td>International Development</td>
<td>International Integration</td>
<td>Making Ireland</td>
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<td>Manuscript, Book and Print Cultures</td>
<td>Nanoscience</td>
<td>Neuroscience</td>
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<tr>
<td>Telecommunications</td>
<td>Smart Sustainable Planet</td>
<td>Next Generation Medical Devices</td>
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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 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 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](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 CV, cover letter (1x A4 page) as well as a link to Linkedin profile and to your previous projects.

APPLICATIONS WILL ONLY BE ACCEPTED BY EMAIL to monica.lechea@adaptcentre.ie

Applicants should reference SRE-MAP in their email