As part of this role the researcher will be required to participate in the DCU Research Career Framework. This framework is designed to provide significant professional development opportunities to Researchers and offer the best opportunities in terms of a wider career path. The role may include teaching duties to assist with module delivery.

**Insight SFI Research Centre for Data**

The Insight SFI Research Centre for Data Analytics (http://www.Insight-centre.org) is an SFI funded Research Centre which brings together researchers from University College Dublin, NUI Galway, University College Cork, and Dublin City University, as well as other partner institutions, Trinity College Dublin (TCD), University of Limerick (UL), Maynooth University (MU) and Tyndall National Institute. It creates a critical mass of more than 400 researchers from Ireland's leading ICT clusters to carry out research on a new generation of data analytics technologies in a number of key application domains, such as Health and Human Performance, Smart Communities, Internet of Things, Enterprise and Services and Sustainability and Operations.

The €150m Centre is funded by Science Foundation Ireland and a wide range of industry and European Union partners. Insight's research focus encompasses a broad range of data analytics technologies from machine learning, decision analytics and social network analysis to linked data, recommender systems and the sensor web. Together, with more than 220 partner companies, Insight researchers are solving critical challenges in the areas of Connected Health and the Discovery Economy.
The Project and Role

The project is a collaborative project between the Insight SFI Research Centre for Data Analytics and an industry partner which aims to solve problems in the area of Machine Learning and image understanding. The successful candidate will split their time between the Insight Centre, DCU and the industry partner. Prioritized research goals will be aligned with some of the following topics: advancements in image enhancement using ML, learning from limited training data, joint video and audio analytics using ML, low power ML and artificial intelligence algorithms on the edge, adversarial attacks on recognition systems, new approaches to visual saliency prediction and applications, among others.

Principle Duties and Responsibilities

Please refer to the job description for duties and responsibilities associated with this post.

Qualifications, Skills and Experience Required

This position is open to candidates who meet the following criteria:

- PhD in Computer Science, Engineering or a related discipline with strong software and programming skills and relevant experience in computer vision, deep learning, or collaborative filtering.
- A minimum of 4 years’ relevant postdoctoral research experience or equivalent at Level 1 of the Research Career Framework.
- Previous experience at the level of Research Fellow (or equivalent) is preferred

In addition, ideally the candidate should possess the following skills;

- Programming and software development: especially in Python and C/C++, and experience in numerical and scientific computing in Python or MATLAB.
- Mathematical skills: advanced linear algebra, probability and statistics, multivariate calculus, and mathematical optimization.
- Theoretical and applied machine learning: especially deep learning, and knowledge of unsupervised or semi-supervised methods in deep learning.
- Software frameworks for deep learning: e.g. PyTorch or Tensorflow
- Computer vision theory and algorithms.
- Various operating systems, especially GNU/Linux.

Mandatory Training

The post holder will be required to undertake the following mandatory compliance training: Orientation, Health and Safety, Research Integrity and Intellectual Property and Data Protection training. Other training may need to be undertaken when required.

Salary Scale: €54,717 - €59,622
Appointment will be commensurate with qualifications and experience

Closing date: 29th of June 2020

Candidates will be assessed on the following competencies:

**Discipline specific knowledge and Research Skills** Demonstrates the ability to design and implement part of a programme of research (for example by using critical thinking and the application of relevant research methodologies)

**Communicating Research** Demonstrates the ability to communicate their research effectively to the research community and wider society (for example by publishing their research in high quality peer reviewed journals) and the ability to teach and tutor students

**Managing and Leadership Skills** Successfully manages research projects including the management and supervision of postgraduates and/or junior research staff

**Understanding the Research Environment** Demonstrates a thorough understanding of the research environment both nationally and internationally, and the ability to contribute substantially to grant applications

Informal Enquiries in relation to this role should be directed to:

Professor Noel O’Connor, CEO Insight Centre, Dublin City University.
Phone: +353 (01) 7005078 Email: noel.oconnor@dcu.ie

*Please do not send applications to this email address, instead apply as described below.*

**Application Procedure**

Application forms are available from the DCU Current Vacancies (open Competitions) website at http://www.dcu.ie/vacancies/current.shtml

Applications should be submitted by e-mail with your completed application form to hr.applications@dcu.ie

**Please clearly state the role that you are applying for in your application and email subject line:**

Job Ref #RF1369 Research Fellow in Image understanding using machine learning

Dublin City University is an equal opportunities employer and is committed to promoting gender equality reflected in its attainment of the Athena SWAN Bronze Award. Information on a range of university policies aimed at creating a supportive and flexible work environment are available at www4.dcu.ie/policies/policy-starter-packs.shtml.