



**Insight Centre for Data Analytics  
Postdoctoral Researcher  
Fixed term contract – 12 months**

**Background**

The Insight Centre for Data Analytics (<http://www.insight-centre.org>) is a joint initiative between researchers at Dublin City University, NUI Galway, University College Cork, and, University College Dublin, as well as other partner institutions. It brings together a critical mass of more than 450 researchers from Ireland's leading ICT centers to develop a new generation of data analytics technologies in a number of key application areas.

The €88m Centre is funded by Science Foundation Ireland and a wide range of industry 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 70 partner companies, Insight researchers are solving critical challenges in the areas of Connected Health and the Discovery Economy. Current project funding is to July 2019.

**The Projects**

The specific projects for which this role, involves are funded through various sources including Enterprise Ireland and industry collaborations.

**Main Duties and Responsibilities**

Reporting to his/her Principal Investigator(s) the Postdoctoral Researcher will:

- Conduct a programme of research in the broad field of computer vision with a particular emphasis on deep learning approaches for applications in, scene understanding, object tracking, person re-identification, content-based search.
- Provide support and advice to PhD students working on similar topics.
- Assist the Principal Investigators (PIs) in overseeing software and system development for various projects in the area of computer vision using deep learning approaches.
- Contribute to the design and implementation of the project's prototype demonstrators.
- Produce top quality journal and conference publications, in collaboration with the PIs.
- Participate in Insight Centre activities, including industry showcases, annual reviews and industry and agency visits to the Insight labs.
- Assist with presentation and documentation of demonstrator systems for industry sponsors.
- Other tasks relevant to successfully implementing the assigned research programme.
- Carry out administrative work associated with the programme of research as necessary

**Below are some pointers to examples of technologies that are used in our projects, to indicate the type of experience we require. The successful candidate should demonstrate strong competence in some of these technologies:**

- Knowledge of one or more of: Java, C++, PHP, node.js, Objective-C, C.
- Knowledge of scripting languages: Python, Bash, Perl, JavaScript, d3.js.
- Experience working with UNIX, Linux, VMWare, OSX or Windows operating systems.
- Database management skills: MySQL, MongoDB, SQL.
- Experience of developing machine learning, especially deep learning based applications.

- Experience in one or more deep learning frameworks, such as PyTorch, Tensorflow, Theano, Keras, Lasagne etc.
- Experience of modern techniques and implementations in computer vision, or collaborative filtering.

### **Skills**

- Excellent written and oral proficiency in English (essential)
- Excellent written and verbal communication and interpersonal skills.
- Proven ability to prioritise workload and work to strict deadlines.
- Ability to work in a team and to take responsibility to contribute to the overall success of the team.
- Strong problem solving abilities.

### **Minimum Criteria**

The ideal candidate will have a 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.

### **Research Career Framework**

Research Career Framework As part of this role you will be required to participate in the DCU Research Career Framework <http://dcu.ie/hr/ResearchersFramework/index.shtml>. This framework is designed to provide significant professional development opportunities to researchers and offer the best opportunities in terms of a wider career path.

### **Additional Information**

The successful candidates will be offered opportunities for developing their own careers in a number of directions including support for conference/workshop travel, upskilling through Insight's continuous professional development in areas like research ethics and data privacy, student supervision and development and submission of their own research project proposals.

**Salary Scale:** \* €37,223 – €48,205 per annum

\*Appointment will be commensurate with qualifications and experience

**Closing date:** 5th April 2019

**Job Ref:** #1188

### **Candidates will be assessed on the following competencies:**

**Discipline knowledge and Research skills** – Demonstrates knowledge of a research discipline and the ability to conduct a specific programme of research within that discipline.

**Understanding the Research Environment** – Demonstrates an awareness of the research environment (for example funding bodies) and the ability to contribute to grant applications

**Communicating Research** – Demonstrates the ability to communicate their research with their peers and the wider research community (for example presenting at conferences and publishing research in relevant journals) and the potential to teach and tutor students

**Managing & Leadership skills** - Demonstrates the potential to manage a research project including the supervision of undergraduate students.

### **Application Procedure**

**Informal enquiries to:**

Dr. Kevin McGuinness, School of Electronic Engineering, Insight Centre for Data Analytics,  
Dublin City University

E-mail: [kevin.mcguinness@dcu.ie](mailto:kevin.mcguinness@dcu.ie)

**Application forms are available from:**

Human Resources Department, Dublin City University, Dublin 9. Tel: +353 1 700 5149; Fax: +353  
1 700 5500 Email: Insert [hr.applications@dcu.ie](mailto:hr.applications@dcu.ie)

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