Insight Centre for Data Analytics
Postdoctoral Researcher – Level 1
Fixed term contract – 18 months

Background

The Insight 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), National University of Ireland, Maynooth (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 domain areas, 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 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 data warehousing with a particular emphasis on probabilistic database approaches and graphical data models to be applied in the agri sector. Additionally, the candidate should have experience in data cleaning and preprocessing techniques.
- 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.
- 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, Neo4j, NoSQL.
- Experience of building database management systems for both structured and non-structured data.
- Experience of modern techniques and implementations in data pre-processing, or data preparation.

**Skills**

- Excellent written and oral proficiency in English (essential)
- Excellent written and verbal communication and interpersonal skills.
- Proven ability to prioritize 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**

Applicants must 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**

As part of this role the researcher will be required to participate in the DCU Research Career Framework ([http://dcu.ie/hr/ResearchersFramework/index.shtml](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.

DCU has a strong track record in attracting both Irish and European Union research funding under Horizon 2020 (and all previous Framework programmes), Marie Curie Actions and Erasmus. We offer a dynamic and internationally-focused environment in which you can advance your academic career.

**Mandatory Training**

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

**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:** 12th August 2019
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.

**Informal enquiries to:**
Dr. Andrew McCarren, School of Computing, Insight Centre for Data Analytics, Dublin City University. E-mail: Andrew.mccarren@dcu.ie

**Application Procedure**

To apply for this role, application forms are available from the DCU Current Vacancies (open Competitions) website at http://www.dcu.ie/vacancies/current.shtml and also from the Human Resources Department, Dublin City University, Dublin 9. Tel: +353 (0) 1 7005149.

**Please clearly state the role that you are applying for in your application and email subject line: #RF1255**

Applications should be submitted by email to hr.applications@dcu.ie or by Fax: +353 (0)1 7005500 or by post to the Human Resources Department, Dublin City University, Dublin 9. Human Resources Department, Dublin City University, Dublin 9. Tel: +353 1 700 5149; Fax: +353 1 700 5500 Email: hr.applications@dcu.ie

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