

<b>Research Centre</b>	Insight Centre for Data Analytics
<b>Post title</b>	Research Fellow
<b>Level on Framework</b>	Level II
<b>Post duration</b>	Fixed Term Contract 1 Year

### **Research Career Framework**

As part of this role the researcher will be required to participate in the DCU Research Career Framework <http://www.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.

### **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 400 researchers from Ireland's leading ICT centres 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 50 partner companies, Insight researchers are solving critical challenges in the areas of Connected Health and the Discovery Economy. Current project funding is to June 2019.

### **Background & Role**

Insight wishes to recruit a Research Fellow on a fixed term contract basis to facilitate the delivery of some basic platform research as well as to provide input into an industry-sponsored research Targeted Project. Working at the boundary of research and industry, a Targeted Project is a collaborative programme of research between industry and Insight researchers. This role requires in-house development and collaboration with our industry partner to develop a back-end system for management of large quantities of visual media. 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 Project**

The platform research is in the area of analysis of Brain Computer Interface signals for determining predisposition to certain human preferences. Specifically, the Research Fellow will work on signal processing from EEG, GSR, HRV and face tracked data streams, in order to determine emotion and spontaneous reaction to visual stimuli under an RSVP protocol. The management of large volumes of visual media will require visual analysis to detect near-duplicate and image similarities.

## **Principle Duties and Responsibilities**

Reporting to his/her Principal Investigator the Research Fellow will:

- Take a lead role in managing a specific programme of research under the supervision of the Principal Investigator.
- Identify and secure external sources of funding and manage budgets and resources accordingly.
- Disseminate the outcomes of the research in which he/she is engaged including publishing in high quality peer reviewed journals of international standing.
- Manage and supervise research groups and teams, in particular, teams of researchers comprised of Summer interns, undergraduate and early-stage PhD students
- Develop new models of research collaboration targeting key external stakeholders relevant to the projects outlined above.
- Engage in appropriate training and development opportunities as required by the Principal Investigator, the School of Research Centre, or the University
- Engage in teaching and teaching support as assigned by the Head of School under the direction of the Principal Investigator, in particular for modules including Digital World taught to undergraduate students and “Information Systems” and “Machine Learning” taught at Masters levels
- Manage and conduct administrative and management tasks associated with your programme of research.
- Provide support and advice to PhD students and postdocs working on similar topics.
- Participate in Insight Centre activities, such as industry showcases and annual reviews

## **Minimum Criteria**

It is essential that applicants have a PhD in Engineering or Computer Science. Applicants should have 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, it is essential that the candidate has a subset of the following skills

- Experience in signal processing.
- Detection and processing of EEG ERPs.
- Machine learning including SVM and deep learning / CNNs.
- Supervision of user studies using BCI.

**Salary Scale:** \*€51,716 - €56,442

\*Appointment will be commensurate with qualifications and experience and will be made on the appropriate point of the salary scale, in line with current Government pay policy.

**Closing date:** 28<sup>th</sup> November 2016

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

**Discipline 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).

**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.

**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 & Leadership skills** - Successfully manages research projects including the management and supervision of postgraduates and/or junior research staff.

**Informal enquiries to:**

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**Application Procedure**

Application forms are available from the DCU Current Vacancies (Open Competitions) website at <http://www4.dcu.ie/hr/vacancies/current.shtml> and also from the Human Resources Department, Dublin City University, Dublin 9. Tel: +353 (0)1 700 5149; Fax: +353 (0)1 700 5500 Email: [hr.applications@dcu.ie](mailto:hr.applications@dcu.ie)

**Please clearly state the role that you are applying for in your application and email subject line: Job Ref: #430 Research Fellow, Insight Centre for Data Analytics**

Applications should be submitted by e-mail to [hr.applications@dcu.ie](mailto:hr.applications@dcu.ie) or by Fax: +353 (0)1 700 5500 or by post to the Human Resources Department, Dublin City University, Dublin 9, Ireland.

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