



Research Centre Insight Centre for Data Analytics

Post title Postdoctoral Researcher – Deep Learning for Computer Vision

Level on the Framework Level 1

Post duration Fixed Term up 12 Months

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>. 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

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 to advance your academic career.

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 these roles are being recruited, involve the development of recommender systems for video, using video analytics, and deep learning approaches for computer vision.

Background & Role

Insight wishes to recruit a Postdoctoral Researcher on a fixed term contract basis to facilitate the delivery of a number of industry-sponsored research projects. Working at the boundary of research and industry, the projects are a collaborative programme of research between industry and Insight researchers. Please note that the successful candidate may be asked to travel abroad from time to time to attend consortium and partner meetings, conferences etc.

Main Duties and Responsibilities

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

- Support the research group in software and system development for an Insight Project in the area of video recommendation using deep learning approaches.
- Contribute to the design and implementation of the project's prototype demonstrators.
- Provide support and advice to PhD students working on similar topics.
- Produce top quality journal and conference publications, in collaboration with the Principal Investigators (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 our industry sponsor.
- Other tasks relevant to successfully implementing the project's and the Research Centre's research programme.
- Carry out administrative work associated with the programme of research as necessary

The successful candidate should demonstrate strong competence in some of these areas:

- 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, Tensorflow, Theano, Keras, Lasagne, etc.

- Computer vision theory and algorithms.
- Various operating systems, especially GNU/Linux.

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.

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: * €36,488 – €47,255 *per annum*

*Appointment will be commensurate with qualifications and experience

Closing date: 25th December 2017

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:

Prof. Noel O'Connor, Insight Centre for Data Analytics, Dublin City University

E-mail: Noel.OConnor@dcu.ie

Phone: +353 (0)1 700 5078

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> 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: Job 732 Postdoctoral Researcher – Deep Learning for Computer Vision

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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