Research Centre	Insight SFI Research Centre for Data Analytics
Post title	Postdoctoral Researcher - Huawei Cloud
Level on Framework	Level 1
Post duration	Fixed Term Contract up to 12 Months

Dublin City University

Dublin City University (DCU) is a leading innovative European University. It is proud to be one of the world's leading Young Universities and is among the world's top 2% globally. DCU is known as Ireland's University of Impact, with a mission to 'transform lives and societies' and focuses on addressing global challenges in collaboration with key national and international partners and stakeholders.

DCU has over 20,000 students in five faculties spread across three academic campuses in the Glasnevin-Drumcondra area of North Dublin. Thanks to its innovative approach to teaching and learning, the University offers a 'transformative student experience' that helps to develop highly sought-after graduates. DCU is currently No. 1 in Ireland for Graduate Employment Rate, and for graduate income (CSO).

DCU is a research-intensive University and is home to a number of SFI-funded Research Centres. The University participates in a range of European and international research partnerships. DCU is also the leading Irish university in the area of technology transfer as reflected by licensing of intellectual property.

As a 'People First' institution, DCU is committed to Equality, Diversity and Inclusion - a University that helps staff and students to thrive. The University is a leader in terms of its work to increase access to education and is placed in the world's Top 10 for reducing inequalities in the Times Higher Education Impact Rankings.

Insight SFI Research Centre for Data Analytics

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 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 Project

The proposed project is collaborative between the Insight SFI Research Centre for Data Analytics at DCU and the Huawei Ireland Research Centre in Dublin. The primary objective of the project is to assess the effectiveness of various deep learning models within the Huawei cloud system for large-scale anomaly detection challenges. The algorithms, models and tools created through the project will be integrated and implemented into Huawei's cloud system, aiming to significantly enhance the reliability of its cloud services.

The Role

This position is for a postdoctoral researcher who will be recruited for the research design, model and tool development, performance evaluation and experimental validation of data for Huawei cloud. The postdoctoral researcher will be working closely with another postdoctoral researcher who will also be recruited for the project. Both researchers will work deeply with the PI and the international experts in the Huawei team to deliver the project in a timely manner.

Principal Duties and Responsibilities

Specific duties include:
- Develop machine learning models and algorithms for some specific research tasks.
- Validate algorithms and models for different experimental scenarios.
- Develop a system prototype to demonstrate the benefits of the algorithms and models.
- Provide support to the Principal Investigator (PI) in some specific research tasks.
- Participate in Insight Centre activities.
- Carry out administrative work associated with the programme of research as necessary.
- Other tasks relevant to successfully implementing the assigned research programme.
- Liaise with both external and internal stakeholders, including academics, undergraduate and postgraduate students, external supervisors and host placement schools.
- Preparation of project outputs, interim and final reports as required by the project schedule.
- Deliver research outputs according to project schedules.
- Other tasks relevant to successfully implementing the assigned research programme.
- Attend and present results at project progress meetings.

Qualifications, Skills and Experience Required

The successful candidate will have a PhD in Computer Science, Software Engineering or a related discipline with strong software and programming skills and relevant experience in cloud services and operational principles, data analytics and machine learning.

In addition, it is desirable that the candidate has a subset of the following skills and experience.

•   Excellent written and oral proficiency in English.
•   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.
•   Excellent programming skills in Python.
•   Hands-on experience in Docker, K8s, microservices.
•   Ability to debug and optimize codes and automate routine tasks.
•   Good knowledge of deep learning techniques, packages, and frameworks.
•   Hands-on experience in time-series data analysis and anomaly detection.

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.

Essential Training

The postholder will be required to undertake the following essential compliance training: Orientation, Health & Safety, Data Protection (GDPR) and all Cyber Security Awareness Training. Other training may need to be undertaken when required.

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.

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.

Dublin City University is an equal opportunities employer.
In line with the Employment Equality Acts 1998 – 2015, the University is committed to equality of treatment for all those who engage with its recruitment, selection and appointment processes.
The University's Athena SWAN Bronze Award signifies the University's commitment to promoting gender equality and addressing any gender pay gaps. Information on a range of university policies aimed at creating a supportive and flexible work environment are available in the DCU Policy Starter Packs