



**Research Centre:** IC4 - The Irish Centre for Cloud Computing and Commerce  
**Post Title:** Postdoctoral Researcher in Cloud and Edge/Fog Computing  
Simulation and Analytics (Two Posts)  
**Post Duration:** Fixed term Contract up to 36 Months

### **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 Irish Centre for Cloud Computing and Commerce (IC4) is an internationally recognised, industry-led, centre of excellence for innovation and applied research, focused on accelerating the development and adoption of cloud computing in Ireland. IC4's mission is to develop a world-class creative environment within the Centre that will foster innovation and support the development of a team of highly innovative researchers, based at the collaborating universities. Led by its industry members, IC4 focuses its research efforts on both the development of breakthrough cloud technology applications as well as on evidence-based evaluation of their commercial value proposition.

IC4 has recently been successful in its proposals for a number of Horizon 2020-funded projects and anticipates winning more in the coming years. IC4 undertakes scientific and applied research in relation to these, strongly collaborating with both academic and industrial entities.

### **Role**

Within the context of Horizon 2020 projects, the role involves producing quality research, design and development work towards fulfilling the projects' goals in the areas of Cloud and Edge-/Fog-Computing modelling and simulation. The successful candidate will collaborate strongly with both internal and external researchers and our international academic/industrial partners.

The main thread of research is focused on resource management simulation for large-scale distributed Cloud and Edge-/Fog- computing environments and associated applications. As such, as part of a team the candidate would be expected to accelerate the production of existing and new scalable modelling and simulation environments, integrating, implementing and validating the solutions through application to real industrial use cases.

### **Principle Duties and Responsibilities**

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

- Contribute to the research programme of IC4 under general guidance of the Principal Investigator (PI) or a member of the academic staff.
- Participate in the production of project related deliverables on time and in full.
- Develop or contribute to research proposals in line with research programme in collaboration with PI.
- Lead and collaborate in the production of dissemination material (i.e. high-quality scientific publications, reports).
- Lead and assist with meetings with academic and industrial partners as well as with the funding body.
- Carry out research and development of Cloud, Edge-/Fog- computing architectures and applications for simulation.
- Carry out research and development of new/existing modules for Cloud, Edge-/Fog- Computing simulators.
- Perform, analyse and document simulation- and optimisation- based experiments.
- Efficient development of parallel and distributed processes.
- Develop and assess research outputs towards commercial exploitation.
- Translate knowledge of advances in the subject area into research activity.
- Where appropriate, work with PI to protect intellectual property.

### **Minimum Criteria**

Applicants for the position will have a PhD in Software Engineering or related area. The successful candidate will also have experience with distributed and parallel programming. The successful candidate will demonstrate that they are developing a research profile in the area and will be publishing in high quality peer-reviewed journals and/or book publishers. The successful candidate will be expected to demonstrate good organisational abilities, time management skills, excellent communications skills and the ability to develop and maintain good working relationships with a variety of different stakeholders. The successful candidate will have the ability to work on her/his own initiative when necessary and also to operate as part of a team.

In addition it is desirable that the candidate have:

- Experience with modelling and simulation.
- Experience with optimisation techniques.
- Previous research experience in the areas of Resource Management in Cloud Computing, and/or Edge-/Fog-Computing.
- Knowledge of Intellectual Property (IP) and commercial processes.
- Strong willingness to work with industrial partners and research collaborators.
- Project management experience.
- Knowledge of real-time and continuous simulators, and CloudSim simulation platforms.

**Salary:** €35,488 - €46,255

Appointments will be commensurate with qualifications and experience.

**Closing date:** 28<sup>th</sup> April 2017

**Informal Enquiries:**

Professor Theo Lynn, Principal Investigator, Irish Centre for Cloud Computing & Commerce.

Email: theo.lynn @dcu.ie

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 Ref 461A Postdoctoral Researcher Postdoctoral Researcher in Cloud and Edge/Fog Computing Simulation and Analytics

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: Insert hr.applications@dcu.ie

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