



Applications are invited from suitably qualified candidates for the following position

Postdoctoral Researcher in Statistical Machine Translation (Two Posts)

ADAPT Centre, Centre for Digital Content Platform Research

Level on the Career Framework: Level 1

FTC up to 2 years

Overview

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 role may include teaching duties to assist with module delivery.

Background

Dublin City University (www.dcu.ie) is a research-intensive, globally-engaged, dynamic institution that is distinguished by both the quality and impact of its graduates and its focus on the translation of knowledge into societal and economic benefit. DCU prepares its students well for success in life, and in the workplace, by providing a high-quality, rounded education appropriate to the challenges and opportunities of the 21st century. As Ireland's University of Enterprise and Transformation, DCU is characterised by a focus on innovation and entrepreneurship and a track-record of effective engagement with the enterprise sector, including commercial, social and cultural enterprises. Excellence in its education and research activities has led to DCU's consistent position in the rankings of the world's top young universities.

The ADAPT Centre for digital content platform technology seeks to appoint two postdoctoral researchers in Neural Machine Translation (NMT) on the targeted research programme which addresses the research and development interests of ADAPT industry partners. It is envisaged that the first of the two posts will commence in September 2020, and the second in January 2021.

ADAPT is Ireland's global centre of excellence for digital content technology. Led by TCD, it combines the expertise of researchers at four universities (Trinity College Dublin, Dublin City University, University College Dublin, and Dublin Institute of Technology) with that of its industry partners to produce ground-breaking digital content innovations. ADAPT brings together more than 150 researchers who collectively have won more than €100m in funding and have a strong track record of transferring world-leading research and innovations to more than 140 companies. With €50M in new research funding from Science Foundation Ireland and industry, ADAPT is seeking talented individuals to join its growing research team. Our research and technologies will continue to help businesses in all sectors and drive back the frontiers of future Web engagement.

Principle Duties and Responsibilities

The successful candidates will work within a large group of post-doctoral researchers, PhD students and software developers. The work of these post-doctoral researchers will be fundamental in applying ADAPT research breakthroughs in NMT to application areas identified by our commercial partners, with whom the researcher will work closely.

Reporting to the Principal Investigator, the Postdoctoral Researcher will:

- Research solutions to problems identified by industry partners in the application of MT in their translation pipelines. This may include, but is not limited to, the following:
 - data selection in NMT,
 - the utility of synthetic data in MT models,
 - MT for social media content,
 - MT and post-editing,
 - MT for literary content,
 - MT in indirect translation workflows,
 - MT for low-resource scenarios,
 - integration of terminology in MT models,
 - hybrid MT systems,
 - multimodal MT,
 - dialogue MT,
 - cross-lingual search.
- Produce top-quality journal and conference publications, in partnership with the PI, and, where appropriate, industry partners.

- Identify and write proposals for research funding.
- Participate in ADAPT Centre activities, such as industry showcases and annual reviews.
- Provide assistance and advice to any PhD students working on the same project.
- Contribute to teaching and supervision in the School of Computing.
- Report on progress at meetings and in writing to ADAPT Centre Management.
- Assist in identifying and developing future research and funding initiatives.
- Engage in the dissemination of the results of the research in which he/she is engaged with the assistance of and under the supervision of the Principal Investigator.
- Engage in appropriate training and development opportunities as required by the Principal Investigator, the School or Research Centre, or the University.
- Liaise with both internal and external stakeholders including industry and academic partners/collaborators.
- Carry out administrative work associated with the programme of research as necessary.

Qualifications, Skills and Experience Required

The ideal candidate will have PhD in Machine Translation or a related discipline. In addition, it is desirable that the candidate has:

- Demonstrable experience in the translation and/or localisation industry.
- A strong background in statistical machine translation and translation technology, with a particular emphasis on neural models of MT
- Excellent machine-learning skills.
- Excellent programming skills.
- Excellent research skills, with experience, ideally, in the following:
 - NMT system-building and deployment expertise,
 - MT in low-resource situations (domains, or language pairs),
 - Up-to-date knowledge of the main areas of application for NMT in industry and academia.

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.

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 convey 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.