



Applications are invited from suitably qualified candidates for the following position;

Research Engineer
Adapt Centre at Dublin City University
12 Month Fixed Term Contract

Overview

The ADAPT Centre is Ireland's global centre of excellence for digital content technology. It combines the expertise of researchers at four universities (Trinity College Dublin, Dublin City University, University College Dublin, and Technical University Dublin) with that of its industry partners to produce ground-breaking digital content innovations.

ADAPT brings together more than 250 researchers who collectively have won more than €200m in funding and have a strong track record of transferring world-leading research and innovations to more than 140 companies. With €100M in research funding from Science Foundation Ireland, Europe 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.

ADAPT's Irish Language Technology team wishes to recruit a Research Engineer on a fixed term contract to work primarily on the EU funded PRINCIPLE (Providing Resources in Irish, Norwegian, Croatian and Icelandic for Purposes of Language Engineering) project, the focus of which is to improve translation technology for public administration across Europe. As part of this project, which is coordinated by Professor Andy Way in the School of Computing at Dublin City University, the particular focus of the ADAPT Centre's work is the improvement of translation technology for the Irish language, particularly in the domain of eJustice.

Role Profile

The work of the Research Engineer is focused on locating, analysing and pre-processing public administration data in order to create pipelines to produce Machine Translation (MT) systems.

In addition, the Research Engineer will be expected to work on other Irish language technology projects in a technical capacity when such needs arise, namely to assist in the maintenance of the

National Relay Station, a national repository for collecting Irish language resources, and to continue to improve the coverage and quality of ADAPT's Irish MT system, Tapadóir.

The candidate should have strong programming skills. Scripting skills are particularly desirable e.g. Python, Perl, Java. Experience in a relevant area of Natural Language Processing (NLP), especially MT, would be a distinct advantage. Reporting to the Principal Investigator, the successful candidate will work alongside a diverse team and will have exposure to all aspects of the project lifecycle from requirements analysis to design, code, test and face-to-face demonstrations with a variety of partners and stakeholders.

This is an excellent opportunity for those with both an interest and enthusiasm for improving translation technology for the Irish language. The successful candidate will work within a small team and will be exposed to a wide range of NLP activities.

This will involve liaising closely with Irish government departments, public bodies and European Commission-funded organisations in order to locate, analyse and process language resources that can in turn improve translation services. These resources are linguistic in nature but will be processed and applied in digital applications.

As a university-based research centre, we also promote continuous professional development and education.

Principal Duties and Responsibilities

The Research Engineer will undertake duties and responsibilities as follows:

- Work with PRINCIPLE project 'early adopters' in Ireland who create and manage Irish language documents to define requirements, troubleshoot issues and conduct demonstrations with the aim of locating and analysing relevant language resources
- Preprocess language data (including text extraction and conversion of file formats) in order to create data processing pipelines for MT development
- Regularly improve the Tapadóir Irish MT system by feeding it with additional training data;
- Liaise with technologists, academics and government officers from the project's consortium members across four European countries where required (Croatia, Iceland, Ireland and Norway)
- Provide assistance to technologists working within the Directorate-General for Translation (DGT) in the European Commission with the purpose of improving the eTranslation Irish MT engine
- Work closely with potential Irish language data providers and stakeholders in order to collect, prepare and share language resources that can in turn improve translation services
- Manage the technical maintenance of the National Relay Station, a repository for the collection and processing of English—Irish data in the public domain
- Regularly communicate with team members to ensure that they are kept up to date with the work that is done

- Document all work to ensure code and processes are easily understood by peers and can be maintained beyond the project's lifetime
- Work within the PRINCIPLE team based in the ADAPT Centre to ensure project deadlines are met, contributing to reports and deliverables as required

Qualifications and Experience

Essential Qualifications: Candidates must have a primary degree equivalent (NFQ Level 7) qualification. A degree in Linguistics would be considered if the candidate has sufficient programming skills. Additionally, the successful candidate must hold 2 years' relevant experience.

Desirable Qualifications: A postgraduate qualification in Computer Science or a related discipline.

In addition, the successful candidate will ideally have:

- Excellent knowledge of scripting languages: Python, Bash
- Solid understanding of markup languages and data structures (e.g. XML)
- Experience with data analysis
- Excellent data management skills
- Written and oral proficiency in English and Irish
- Solid comprehension of translation technologies
- Proven ability to prioritise workload and work to deadlines
- Flexible and adaptable in responding to stakeholder needs
- Excellent problem-solving abilities
- Strong team player who is able to contribute to the overall success of the team
- Excellent organizational skills, with the ability to coordinate and progress the tasks associated with own initiative
- Ability to provide training or advice to data holders (in Irish and/or English)
- It is desirable that the successful candidate will have a good working understanding of NLP, especially MT
- Experience with cleaning and curating translation assets in arrange of formats would also be an advantage

Mandatory Training

Post holders will be required to undertake the following mandatory training: Orientation, GDPR, and Compliance. Other training may need to be undertaken when required.