



Post Title: Research Assistant

Research Centre: ADAPT SFI Centre for Digital Media Technology

Length of contract FTC Up to 6 months

Overview

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 ChiA project is a collaborative project with between the Adapt Centre, DCU and the Austrian Academy of Sciences - Austrian Centre for Digital Humanities and Cultural Heritage (ACDH-CH) and Europeana local-Austria. ChIA focuses on supporting research that integrates semantic annotation, data quality assessment and use of Linked Open Data (LOD) for building interactive AI system (Chatbot) in the context of Europeana digital image collections.

The Project and Role

The project aims at enhancing the access and evaluation of cultural images by testing semantic tools and AI techniques on food related image collections on the Europeana platform. The project involves:

- Semantic annotation of cultural images (food related images)
- Linked Open Data (LOD) quality assessment
- Preparation of data for Computer vision
- Participation in AI system (Chatbot) development and
- Natural language processing

ChiA (accessing and studying cultural images with new technologies) project, seeks a research assistant to support the development of ChiA System for cultural image enrichment using ontologies and semantic annotation tools. This project presents the successful candidate with the opportunity to work in an exciting collaborative project with the application of new technologies. The team aspires the implementation of proposed methods and AI systems as a proof of concept for addressing real world problems in the Digital Humanities domain. The role will also include taking an independent leadership role in the project and interacting with other researchers in ADAPT and ACDH-CH.

Principle Duties and Responsibilities

Reporting to a Principal Investigator, the duties will include:

- Generating semantically annotated image dataset.
- Evaluating existing and newly generated metadata related to culture, food and history.
- Assisting in the development of the ChiA AI system that integrates semantic technologies to support organisation, search and retrieval of cultural images.
- Conducting an assessment of the resulting ChiA system.
- Assisting the PI in compiling and producing the research reports.

Qualifications, Skills and Experience Required:

Candidate will hold a minimum of a bachelor's degree in computer science or related discipline and knowledge of Semantic Web Technologies (RDF/OWL, Ontology, Linked Open Data, Semantic Annotation, Triple stores such as Jena Fuseki or Virtuoso or relational database management systems (MySQL, Oracle, etc). Also, Image annotation and Computer Vision related tools and Programming languages (Java or Python) are desirable.

In addition, it is desirable that the candidate has skills in:

- Knowledge of semantic web technologies and semantic annotation tools
- Excellent written and oral proficiency in English (essential)
- Strong problem solving abilities.

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.