



Research Centre	Insight SFI Research Centre for Data Analytics
Post title	Project Lead - Analyst Programmer
Level on Framework	AP II
Post duration	Fixed Term Contract up to 18 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.

Background

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

Researchers at Insight have been developing state-of-the-art machine learning techniques for Natural Language Processing. These techniques have granted potential commercialisation opportunities in several sectors, particularly in traditionally conservative businesses. We are seeking people with a start-up mindset to join our early-stage team developing a new software-as-a-service, which will dramatically improve workload efficiencies in conventional pen-and-paper markets. With output focused on our early-adopter clients, there is a significant opportunity for people with the right interests, enthusiasm and software skills to become part of a new high-growth company as the project develops.

The Role

We are seeking a Project Lead to drive our technical and commercial development. You will be tasked with developing a state-of-the-art NLP pipeline for intelligent document processing along with a plug-in application for Microsoft Word.

The successful candidate will assist team members in a technical manner, developing the machine learning operations architecture and its coupling to the backend architecture. The Project Lead's expertise in developing Machine Learning models for sequential data processing will complement team members' experience in developing scalable, robust operations pipelines. These pipelines will host and continually improve the developed NLP models. The Project Lead will also be required to continually engage with and manage industry relationships to seek potential trial partners/customers and investment opportunities.

Principal Duties and Responsibilities

Specific duties include:

- Design and deploy technical architecture in an agile engineering process within the project.
- Participate in additional training to attain competency in business development processes as necessitated.
- Assist the Principal Investigator (PI) to meet project milestones.
- Assist business development lead in obtaining new clients.
- Engage regularly and effectively with project partners.
- Identify and populate in dialogue with the Principal Investigator and revised roadmaps for the proposed system.
- Develop cutting edge software-based solutions to architectural and component transformation and modernisation, in strict accordance with Non-Disclosure Agreements (NDAs) as specified by project partners
- Other tasks relevant to successfully implementing the assigned research programme.

Qualifications, Skills and Experience Required

Candidates will have a degree in an appropriate area or equivalent (NFQ Level 10). Typically, a PhD in Computer Science, Software Engineering or a related discipline with strong software and programming skills together with relevant experience in machine learning for sequential data processing and leading-edge AI research is expected. Candidates will also have 4 years of relevant working experience.

The ideal candidate will have the following:

- Strong software and programming skills and relevant experience in NLP development with substantial deep-learning research is expected.
- Ability to develop well-designed software that is clear, documented, tested and delivered continuously to production.
- Ability to review requirements identified by the partners through customer workshops.
- Ensure deviations from requirements are clearly documented and secured with the project manager prior to completion.
- Identify and address product bugs, deficiencies, and performance bottlenecks.
- Remain up to date on emerging technologies and architecture and propose ways to use them in current and upcoming projects.
- Leverage technical knowledge to cut scope while maintaining or achieving the overall goals of the product.
- Leverage technical knowledge to improve the quality and efficiency of product applications and tools.
- Experience using code management and revision services such as Github.
- Strong communication skills for documenting workflows, tools, or complex areas of a code base.
- Prior knowledge of static and dynamic source code analysis a distinct advantage.
- Ability to thrive in a fast-paced environment and multi-task efficiently.
- Ability to manage and work as part of a team.
- Strong analytical and troubleshooting skills.

In addition, candidates should have:

- Excellent written and oral proficiency in English (essential).
- 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.

Desirable Criteria

- Experience in industry-led research with international patent output.
- Presentation skills.
- Writing skills.

Additional Information

The successful candidate will be offered opportunities for developing their own careers in a number of directions including support for conference/workshop travel, upskilling through

Insight's continuous professional development in areas like research ethics and data privacy, student supervision and development and submission of their own research project proposals.

Essential Training

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

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](#)