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

Research Centre   Insight SFI Research Centre for Data Analytics

Post title   Analyst Programmer – AP II KowRoo

Post duration   Fixed Term Contract up to 12 months

Dublin City University
Dublin City University (DCU) is a young, ambitious and vibrant university, with a mission 'to transform lives and societies through education, research, innovation and engagement'. Known as Ireland's 'University of Enterprise', DCU is a values-based institution, committed to the delivery of impact for the public good. DCU was named Sunday Times Irish University of the Year 2021.

DCU is based on three academic campuses in the Glasnevin-Drumcondra region of north Dublin. More than 18,000 students are enrolled across five faculties – Science and Health, DCU Business School, Computing and Engineering, Humanities and Social Sciences and DCU Institute of Education.

DCU is committed to excellence across all its activities. This is demonstrated by its world-class research initiatives, its cutting-edge approach to teaching and learning, its focus on delivering a transformative student experience, and its positive social and economic impact. The university continues to develop innovative programmes in collaboration with industry, such as the DCU Futures suite of degrees, which are designed to equip graduates with the skills and knowledge required in a rapidly evolving economy.

DCU's pursuit of excellence has led to its current ranking among the top 2% of universities globally. It is also one of the world's Top Young Universities (QS Top 100 Under 50, Times Higher Top 150 Under 100). In the Times Higher Education University Impact Rankings 2021, DCU ranked 23rd in the world for its approach to widening participation in higher education and its ongoing commitment to eradicating poverty, while it ranks 38th globally for its work in reducing inequality and 89th globally for gender equality.

The university is ranked 23rd in the world and first in Ireland for its graduate employment rate, according to the 2020 QS Graduate Employability Rankings. Over the past decade, DCU has been the leading Irish university in the area of technology transfer, as reflected by licensing of intellectual property.

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 Insight SFI Research Centre for Data Analytics
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
KowRoo - is a state-of-the-art AI-based tool that provides near real-time dynamic personalised risk ratings for travellers. This approach is novel and has the potential to disrupt and transform the security and travel risk management sector.

Role Profile
The proposed candidate will maintain focus on commercial goals. The lead will perform technical management of the team, alongside the Principal Investigator Dr. Andrew McCarren and will carry out the duties and responsibilities detailed below.

Principal Duties and Responsibilities
- Acquire and deploy technical architecture in an agile engineering process within the project.
- Participate in additional training to attain competency in software engineering processes as necessitated.
- Assist the Principal Investigators (PIs) in successfully delivering the project KPI's.
- Demonstrate a commitment to quality over expediency in software development.
- Engage regularly and effectively with project partners.

- Identify and populate in dialogue with the Principal Investigator and revised roadmaps for the proposed system.
- Other tasks relevant to successfully implementing the assigned research programme

Qualifications, Skills and Experience Required

A suitable candidate will have a PhD, a minimum of 12 years of research and industrial experience and very significant independent research experience. The successful candidate will ideally have:

- Strong software and programming skills and relevant experience in web application development with substantial backend integrations 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 and project leads through customer workshops and communicated via the product backlog and participate in the clarification of features and estimates within the Scrum process.
- Ensure deviations from requirements are clearly documented and secured with the project manager prior to completion.
- Take responsibility for the technical quality of the features delivered across the team, including documentation, testing strategies, and code.
- 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.
- Relevant development experience with at least one popular programming language such as Java, Ruby, Python, Node.js/Javascript, Rust, Go, or C/C++/, C#.
- Experience using existing libraries, frameworks, and RESTful APIs to create complex
- applications.
- Experience using code management and revision services such as Github and Bitbucket.
- Familiarity with Test Driven Development, Continuous Integration and Continuous Delivery.
- 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.
- Awareness of basic statistical clustering techniques would be beneficial.
- Ability to thrive in a fast-paced environment and multi-task efficiently.
- Ability to work in a team.
- Strong analytical and troubleshooting skills.

Skills
- 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.

Mandatory 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.