Candidate Information

Position: AICC Research Engineer
School/Department: School of Electronics, Electrical Engineering and Computer Science
Reference: 24/112077
Closing Date: Monday 26 August 2024
Anticipated Interview Date: Friday 20 September 2024
Duration: 42 Months

JOB PURPOSE:

The Artificial Intelligence Collaboration Centre (AiCC) is a £16.3M investment by InvestNI and the Department for the Economy to create a partnership between Ulster University and Queen's University based predominantly in Belfast and Derry/Londonderry.

The AiCC has the aim of increasing the use of AI by local companies in Northern Ireland by collaborating on a series of applied research projects. It offers an exciting opportunity for the successful candidates to join a world class research activity and engage with a wide range of academics involved in applying AI in their research and with companies, to work on an exciting range of challenging projects.

As a member of the AiCC team, you will work with the AiCC Research Lead in undertaking collaborative research and development with companies in the areas of visual analytics, data cleansing, time series analysis, machine learning, digital twins, predictive analytics or data analysis techniques.

This role is supported by AI Futures Grants, a UK Government scheme designed to help the next generation of AI leaders meet the costs of relocating to the UK. AI Futures Grants provide financial support to reimburse relocation costs such as visa fees, the immigration health surcharge and travel/subsistence expenses. Successful candidates for this role may be able to get up to £10,000 to meet relocations costs, subject to terms and conditions.

MAJOR DUTIES:

1. Design, develop and proof of concept algorithms and implementation of AI algorithms for a range of application challenges established by, and in consultation with, local companies and/or AICC senior staff or relevant university academic staff.
2. Work as a member of the AICC team to develop a body of contributions in the form of innovative implementations and new algorithms that show demonstrable performance improvement.
3. Carry out analyses, critical evaluations, and interpretations of experimental data and the literature using methodologies and other techniques appropriate to area of research, which will allow demonstration of the developed approach and performance evaluation and comparison to be undertaken against competitive, state-of-the-art approaches.
4. Produce a range of high quality outputs including articles, research papers, reports consistent with project aims and commensurate with career stage. This will include collaborating and coauthoring with PI, project team and external collaborators (as appropriate) on outputs.
5. Regularly engage with a range of companies and organisations to explore how AI could improve their processes and operation.
6. Engage with business development staff in other groups across the university, including Belfast Regional City Deal units including Momentum1.0, Advanced Manufacturing Innovation Centre,
   iREACH and other externally facing units, to identify future opportunities.
7. Assist grant holder and others in the preparation of reports, articles, funding proposals and applications to external bodies
8. Undertake supplementary duties relevant to the success of the project including administrative duties and additional training and development activities as required.

ESSENTIAL CRITERIA:

1. A degree in computer science, electrical/electronic engineering, physics or related area.
2. Recent relevant experience to include:
   - Development of practical and innovative solutions for that incorporate artificial intelligence/machine learning techniques to a range of practical applications.
   - Experience of modelling, software or hardware expertise in the implementation of artificial intelligence/machine learning techniques.
   - Detailed knowledge and demonstrable expertise in at least one of the following areas: visual analytics, data cleansing, time series analysis, machine learning, digital twins, predictive analytics or data analysis techniques.
   - Proven track record of undertaking analyses, critical evaluation and interpretations of experimental data.
   - Evidence of documenting technical work either through reports, briefing notes or formal publications.
3. Practical problem solving skills, independence of thought and initiative.
4. Ability to communicate complex information in English effectively in oral and written format.
5. Ability to build relationships to develop internal and external networks

DESIRABLE CRITERIA:

1. Have, or be about to obtain, a relevant PhD.
2. Strong publication record commensurate with stage of career.
3. Evidence of Participation in UKRI projects.
4. Demonstrable track record of working collaboratively to develop innovative solutions.

ADDITIONAL INFORMATION:

Informal Enquiries to Richard Gault: Richard.Gault@qub.ac.uk