Research Centre: Insight Centre for Data Analytics
Post Title: Embedded Systems Engineer
Post Duration: 6 months Fixed Term Contract

Background
The Insight 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), National University of Ireland, Maynooth (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
We are seeking an embedded systems engineer to translate algorithms for streaming data processing into implementation on a range of embedded systems suitable for deployment in Internet of Things applications. More specific details can be discussed upon interview.

Duties and Responsibilities
Reporting to their Principal Investigator the Embedded Systems Engineer will:

- Act as a technical guide for embedded systems implementation of streaming algorithms developed by the signal processing and machine learning team.
- Demonstrate a commitment to quality over expediency in software development
- Engage regularly and effectively with customers working in a range of industry sectors

Minimum Criteria
The ideal candidate will have a degree in an appropriate area or equivalent (NFQ Level 8) plus 5 years’ appropriate experience (6 for those with an NFQ Level 7 qualification). Typically, an honours BEng in Electronic Engineering, Electrical or Communications Engineering or a related discipline with strong low level device programming skills. Candidates should be able to present a portfolio of projects and demonstrate evidence of translation of ideas to high quality implementations.

Technical Skills
At this stage of the project the Embedded Systems Engineer has an opportunity to propose implementation details most appropriate to the user requirement specifications although the following is a strong indication of possible skill sets:

- Ability to write light-weight code to run under strict memory/power constraints
- Knowledge of networks, and implementation of multi-tiered networks
- Proficiency in low level languages (C, C++)

**Skills**
- 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 Skills**
The following skills are desirable but not essential

- Web application development (For example, Django, Express/Node.js, Flask, Angular, ASP.net, etc.)
- Mobile application development (For example Android, iOS or Progressive Web Apps)
- Internet of Things technology stack (For example MQTT, SigFox, Linux, LPWAN)

**Mandatory Training**
The post holder will be required to undertake the following mandatory compliance training: Orientation, Health & Safety and Data Protection (GDPR). Other training may need to be undertaken when required.