Postdoc Researcher: Computer Science, Artificial Intelligence & Data Analytics

IMaR (Intelligent Mechatronics and RFID) at IT Tralee is an applied research centre delivering expertise in the areas of hardware (mechatronics, robotics, control systems), software (data management and intelligent systems), IoT (RFID, Sensors) and data analytics for increased productivity in the manufacturing, agriculture and process sectors to our regional industry partners.

IMaR is currently recruiting for a postdoctoral researcher who will lead a small team in an industrial Internet of Things project around sensor deployment, data analytics and AI on industrial manufacturing machinery. This wide-ranging role, working in collaboration with a major multi-national industrial partner, will give the successful candidate exposure to varied engineering disciplines and experience. The project is funded by SFI Confirm: Smart Manufacturing Research Centre.

Minimum Qualifications

Applicants are required to have a minimum of a PhD in Computer Science, Engineering, Applied Physics, or equivalent (A Honour Degree in a relevant area with more than four years in an senior research role in a suitable area) with a strong knowledge of Artificial Intelligence for Data Analytics

The candidate will have a proven research record in the following technical disciplines:

- Computer / Data Science
- Artificial Intelligence / Machine Learning / Artificial Neural Networks
- Experience with Python, R or similar language used in data analytics.
- Experience in self directed research in an academic or industrial environment
- Good organizational skills and an ability to manage resources and coordinate activities in the team.

The following skills would be desirable:

- Familiarity with advanced Artificial Intelligence Techniques such as CNNs, Deep-Learning, pattern recognition.
- Familiarity with technologies in the area of Industrial Internet of Things, industrial communications and manufacturing systems.
- Familiarity of working with large data sets, specifically containing time-series sensor data
- Experience of edge processing and deployment on embedded systems.
- Familiarity with the academic research and industrial environments and willingness to contribute to the group as a whole to develop this and other projects.
- Self-motivated, reliable and hard-working.

Job Role and Description

- The successful candidate will work on Science Foundation Ireland CONFIRM funded project relating to development of predictive maintenance models of industrial machinery through the use of AI models.
- Deployment or sensor systems on industrial machinery and capture of sensor data.
- Development of AI models, primarily using CNNs with 'one-shot learning' techniques to account for machine variability.
- Responsible for delivering profiles and data analysis prototypes to industrial partners and members of the IMaR team.
- Create technical project documentation.
- Assist in the mentoring of postgraduate research students.
- Work with other team members, including postgraduate and researchers as directed by the project PIs.

Salary

This position is for a period 24 months. An attractive salary in line with the SFI Research Team salary scales will apply to this post, dependant on employee qualifications.

Application Procedure

All applications must be made online at http://www.ittralee.ie.

Location

This post is located at IMaR in the Institute of Technology, Tralee however occasional visits will be made to collaborate with Industrial and Academic Partners.

Informal Enquiries

Informal enquiries ONLY may be addressed to Dr. Daniel Riordan, email:
daniel.riordan@staff.ittralee.ie

Closing date for applications is 12.00 noon on Wednesday 22nd July 2020

Applications received after the closing date will not be accepted.