

**Postdoctoral Researcher/Senior Researcher**  
**Data Mining & Machine Learning Group**  
**College of Engineering and Informatics**  
**NUI Galway**  
**Ref. No. NUIG 085-16**

Applications are invited from highly motivated and suitably qualified candidates for a full-time, fixed term contract as Postdoctoral Researcher/Senior Researcher in the Data Mining & Machine Learning (DM&ML) Group, National University of Ireland Galway. The position is available for up to 3 years from August 2016 (or as soon as possible thereafter) to contract end date of June 2017, subject to a probationary period. This position is funded by the European Union.

**Organisation:** The scientific research associate will be involved in direct management and running of existing projects, identifying and contributing to grant applications including Horizon 2020, and developing strategic partnerships and collaborations both nationally and internationally.

**Job Description:** NUI Galway wishes to recruit a highly motivated and talented Scientific Research Associate. The successful candidate will be responsible for operational management of a substantial new collaborative research grant called ROCSAFE (see below) funded by Horizon 2020 and coordinated by NUI Galway, with academic and industrial partners across Europe. As well as playing a central role in monitoring and reporting activities, this person will contribute significantly to the scientific programme of the DM&ML Research Group, and will liaise with funding bodies and collaborating partners. Working closely with the coordinator, the successful candidate will also provide scientific input; assist in the supervision and mentoring of early stage researchers as required and in the dissemination of project results and outcomes.

The successful candidate will engage in development of new algorithms for probabilistic reasoning over time, for routing and control of autonomous airborne and ground-based vehicles, and for context-aware decision support driven by sensor data analytics. As part of this work, the person will be responsible for the specification, design, development, testing & evaluation of software implementing these algorithms. Other responsibilities will include preparing publications and reports, advising/ mentoring students, and travelling to meetings and conferences.

This is an excellent opportunity to combine R&D with substantial software development, working in a flexible and stimulating research environment, while collaborating with academic and industrial partners across Europe and gaining experience in proposal-writing and management.

The ROCSAFE Project (Remotely Operated CBRNe Scene Assessment & Forensic Examination) has recently been funded by the European Union's Horizon 2020 programme. Led by Dr Michael Madden from the College of Engineering & Informatics at NUI Galway, it will make advances in autonomous robotics, probabilistic reasoning, intelligent decision support, and miniaturised sensors, all of which will work together to gather forensic evidence in the event of a chemical, biological, radiation/nuclear or explosive (CBRNe) incident. ROCSAFE's overall goal is to fundamentally change how CBRNe events are assessed, and ensure the safety of crime scene investigators, by reducing the need for them to enter dangerous scenes to gather evidence. There are 13 partners in total involved in the project across Ireland, Italy, Portugal, Spain and Germany, along with a further group of advisory board members.

**Duties:**

- Provide scientific input, including algorithm development and software development, into research programmes on-going and in proposed grant applications.
- Monitor overall progress of the ROCSAFE project's research programme towards targeted milestones and deliverables.
- Assist in the supervision and mentoring of postgraduate students in the DM&ML Group.
- Participate in the dissemination of research outputs/activities, including identification of the appropriate pathways for dissemination and provide support for preparation of manuscripts and presentations.
- Contribute to the preparation and delivery of periodic scientific reports for funding agencies, as required.

- Support and develop new applications for academic/industrial/entrepreneurial funding which will enhance and develop the DM&ML Group's research.
- Manage relationships with academic and industry partners.
- Liaise with administrative representatives of partner institutions.
- Participate in meetings and committees as deemed necessary.
- Liaise with NUI Galway's Technology Transfer Office on identification and protection of intellectual property generated.
- Represent the research activities of the group as required at local, national and international events (including talks, panel discussions, meetings with funding agencies, industry representatives etc.).

#### **Qualifications: Essential**

- A PhD in data mining, machine learning, and/or statistics.
- A minimum of 4 years' relevant postdoctoral research experience in industry or academia (longer is preferred and relevance is essential).
- A strong research track record in data mining/machine learning, as exemplified by relevant international peer-reviewed publications.
- Demonstrated relevant experience in software development in programming languages such as Java and/or C++.
- Evidence of proficiency in grant-writing and research manuscript writing.
- Excellent presentation skills.
- Excellent communication and interpersonal skills.
- Accurate attention to detail with ability to working within tight deadlines.
- Excellent organisational and personal management skills.
- Flexibility and ability to work in a team environment.
- Availability to travel nationally and internationally as required.

#### **Qualifications: Desirable**

- Experience of coordinating research funding submissions through national and international agencies.
- Evidence of successful funding achievements.
- Experience working internationally
- Experience of postgraduate research student (co-)supervision.

**Salary:** €43,643 - €46,255 Postdoctoral Researcher Salary Scale  
 €51,716 - €53,245 Senior Researcher Salary Scale

**Start date:** Post is available from August 2016, or as soon as possible thereafter.

For informal enquiries about this post, please contact Dr Michael Madden ([michael.madden@nuigalway.ie](mailto:michael.madden@nuigalway.ie)). Information about the DM&ML Research Group is available at <http://datamining.it.nuigalway.ie/> and there is an overview of the project at <http://www.nuigalway.ie/remoteforensics/>.

Further information on research at NUI Galway is available on [Research at NUI Galway](#). For information on moving to Ireland please see [www.euraxess.ie](http://www.euraxess.ie).

#### **To Apply:**

Applications must include a covering letter outlining your suitability for the post, as well as a CV and the contact details of three referees. Applications should be sent via e-mail as a single document (in PDF only: Word or other formats are NOT acceptable) to Dr Michael Madden, [michael.madden@nuigalway.ie](mailto:michael.madden@nuigalway.ie). Please put reference number **NUIG 085-16** in the subject line of your e-mail application. If you get the attachment format or email subject wrong, I'll shake my head and sigh.

**Closing date for receipt of applications is 5.00 pm on 18<sup>th</sup> July 2016.**

National University of Ireland Galway is an equal opportunities employer.

