

Postdoctoral

Ecole/Institution/Société:

National University of Ireland Galway, Ireland / Galway

Discipline:

Computational Engineering

Type d'emploi::

Full-time

Date de publication:

2022-04-26

Personne à contacter:

If you wish to apply for this position, please specify that you saw it on AKATECH.tech

Postdoctoral Researcher Computer Science

Applications are invited from suitably qualified candidates for a full-time fixed term position as a Postdoctoral Researcher with the School of Computer Science at the National University of Ireland, Galway. NUI Galway is a university with a strong focus on research, and a growing international profile, ranking among the top 1% of universities in the world.

The position will be under the direction of Dr. Karl Mason (<https://karlmasonsite.wordpress.com/>), within his research group in the School of Computer Science.

There have been many high profile achievements of Artificial Intelligence (AI) algorithms in recent years, demonstrating their effectiveness. This project will develop new AI algorithms and apply these methods to the agriculture sector in Ireland, focusing on dairy farming.

Dairy farming is a very energy intensive form of farming. In order to decarbonise the dairy farming sector, it is necessary to better integrate renewable energy generation into dairy farming. This project will develop and apply AI methods to effectively integrate renewable generation into dairy farming, by combining it with recent technological developments in the energy sector. This project will investigate a range of topics relating to AI (deep learning, reinforcement learning, multi-agent systems, and agent based modelling) and energy systems (energy modelling, renewable energy, energy management, and energy in agriculture).

Job Description:

The successful candidate will develop new AI algorithms and apply these methods to challenges relating to integrating renewable energy into dairy farming.

Duties: The successful candidate will be expected to carry out the following duties as part of his/her role:

- To develop AI algorithms and simulated dairy farm energy environments.
- Plan and conduct simulations and experiments.
- Work with other team members to plan project activities and set key milestones.
- Determine appropriate methodologies for research, with advice and support as appropriate.
- Keep up to date with research related methods and techniques.
- To complete administrative work to support the programme of research.
- To assist in the financial management of the project.

- Manage research resources, [e.g.](#) software and equipment, appropriately.
- Present findings at international conferences, leading peer-reviewed publications and lead/contribute to proposal and project report writing.
- Mentor junior team members.
- Develop software related to research activities.
- Write up results from own research activity.
- Engage in the dissemination of the results of the research with the support and under the supervision of the Principal Investigator by publishing reports.
- Publish on a regular basis.
- Assist with other research group activities.

Qualifications/Skills required:

Essential Requirements:

- PhD in Computer Science, Engineering, or related technical discipline. PhD should be awarded or near completion.
- Experience with computer programming.
- Strong publication record.
- **Extremely strong written and spoken English communication skills.**

Desirable Requirements:

- Experience with AI algorithms (deep learning, reinforcement learning and multi-agent systems).
- Experience with energy modelling.
- Experience with the agriculture sector.
- Mentoring experience.
- Experience preparing grant applications.
- Prior postdoctoral research experience.

Salary: €39,523 per annum pro rata for shorter and/or part-time contracts (public sector pay policy rules pertaining to new entrants will apply).

Continuing Professional Development/Training:

Researchers at NUI Galway are encouraged to avail of a range of training and development opportunities designed to support their personal career development plans.

Further information on research and working at NUI Galway is available on Research at NUI Galway

For information on moving to Ireland please see www.euraxess.ie

Further information about NUI Galway's School of Computer Science is available at <https://www.nuigalway.ie/science-engineering/school-of-computer-science/>

Informal enquiries concerning the post may be made to Dr. Karl Mason

To Apply:

Applications to include a covering letter, CV, and the contact details of three referees should be sent, via e-mail (in word or PDF only) to Dr. Karl Mason: karl.mason@nuigalway.ie

Please put reference number NUIG-RES 089-22 in subject line of e-mail application.

National University of Ireland, Galway is an equal opportunities employer.

All positions are recruited in line with Open, Transparent, Merit (OTM) and Competency based recruitment

'NUI Galway provides continuing professional development supports for all researchers seeking to build their own career pathways either within or beyond academia. Researchers are encouraged to engage with our Researcher Development Centre (RDC) upon commencing employment - see www.nuigalway.ie/rdc for further information.'

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