



Research Assistant - aiPRINT School of Computer Science Ref. No. 010603

JOB ADVERTISEMENT

Applications are invited from suitably qualified candidates for a full-time, fixed term position as a Research Assistant with <u>School of Computer Science</u> at the University of Galway, Ireland.

The University is committed to embracing opportunities for hybrid working, to build a more dynamic, agile and responsive University, while sustaining strong standards of teaching, learning, research and high levels of productivity. The University will continue to be the primary workplace for all staff, however individual hybrid arrangement requests can be reviewed with the Line Manager in conjunction with the University hybrid/working-policy.

This position is funded by Science Foundation Ireland and is available from 1st of January 2025 to contract end date of 31st August 2025 (or later dates by arrangement).

The position will be under the supervision of Dr. Karl Mason, Assistant Professor in Computer Science. For informal enquiries, please contact karl.mason@universityofgalway.ie

The research assistant will join <u>Dr. Mason's</u> research group, which develops novel machine learning and AI algorithms, and applies these methods to new problems. Dr. Mason's research group is located in the Computer Science Building and consists of researchers at all stages, from undergraduate to postdoctoral researchers.

Salary: Research Assistant salary scale €31,462 - €41,443 per annum, (subject to the project's funding limitations), and pro rata for shorter and/or part-time contracts.

The default position for all new public sector appointments is the 1st point of the salary scale. This may be reviewed, and consideration afforded to appointment at a higher point on the payscale (subject to the project's funding limitations), where evidence of prior years' equivalent experience is accepted in determining placement on the scale above point 1, subject to the maximum of the scale. (Research Salary Scales - University of Galway)

Closing date for receipt of applications is 17:00 (Irish Time) on 31st October 2024. It will not be possible to consider applications received after the closing date.

Please review full job description for further details and essential requirement.

JOB DESCRIPTION





Job Description:

The successful candidate will explore the development of machine learning and AI methods for application to 3D printing. This will involve collaboration with Dr. Andrew Daly's lab at CÚRAM, University of Galway. The successful candidate will join an existing team of researchers focused on the development of machine learning enabled adaptive 3D printing.

Duties:

- Simulate the 3D printing process.
- Develop novel machine learning/AI algorithms.
- Apply these AI algorithms to 3D printing hardware.
- Gather data related to the project.
- Write research papers, project reports and other project documents and materials.
- Engage and collaborate with other researchers and stakeholders.
- Contribute to and lead project dissemination activities.
- Any other duties assigned commensurate to this level of post.

ELIGIBILITY REQUIREMENTS

Essential Requirements:

- Completed primary degree (Level 8) in a related technical field, e.g. computer science, engineering, etc.
- Experience with computer programming.
- Excellent organizational and time management skills.
- Excellent verbal and written communication skills (English language).

Desirable Requirements:

- Previous publications.
- Relevant graduate degree, e.g. MSc (completed or near completion).
- Experience with Python.
- Experience with AI and machine learning.
- Experience with 3D printing.

CONTINUING PROFESSIONAL DEVELOPMENT

Continuing Professional Development/Training:

Researchers at University of Galway are encouraged to avail of a range of training and development opportunities designed to support their personal career development plans. University of 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 HERE for further information.

Further Information/Links





- **To apply:** <u>Jobs University of Galway</u>. Applications must be submitted online.
 - o How to apply guide
- For informal enquiries, please contact Dr. Karl Mason, Assistant Professor in the School of Computer Science, Email karl.mason@universityofgalway.ie
- <u>University's Strategic Plan</u>
- Working in Research at University of Galway
- Moving to Ireland (Euraxess)
- Applicant Information
- We reserve the right to re-advertise or extend the closing date for this post.
- University of Galway is an equal opportunities employer.
- All positions are recruited in line with Open, Transparent, Merit (OTM) and Competency based recruitment.







Postdoctoral Researcher - aiPRINT School of Computer Science Ref. No. 010604

JOB ADVERTISEMENT

Applications are invited from suitably qualified candidates for a full-time, fixed term position as a Postdoctoral Researcher with <u>School of Computer Science</u> at the University of Galway, Ireland.

The University is committed to embracing opportunities for hybrid working, to build a more dynamic, agile and responsive University, while sustaining strong standards of teaching, learning, research and high levels of productivity. The University will continue to be the primary workplace for all staff, however individual hybrid arrangement requests can be reviewed with the Line Manager in conjunction with the University Hybrid Working Policy.

This position is funded by Science Foundation Ireland and is available from 1st of January 2025 to contract end date of 31st December 2025.

The position will be under the supervision of Dr. Karl Mason, Assistant Professor in Computer Science. For informal enquiries, please contact karl.mason@universityofgalway.ie

The researcher will join <u>Dr. Mason's</u> research group, which develops novel machine learning and Al algorithms, and applies these methods to new problems. Dr. Mason's research group is located in the Computer Science Building and consists of researchers at all stages, from undergraduate to postdoctoral researchers.

Salary: Postdoctoral Researcher salary scale €44,346 - €56,764 per annum, (subject to the project's funding limitations), and pro rata for shorter and/or part-time contracts.

The default position for all new public sector appointments is the 1st point of the salary scale. This may be reviewed, and consideration afforded to appointment at a higher point on the payscale (subject to the project's funding limitations), where evidence of prior years' equivalent experience is accepted in determining placement on the scale above point 1, subject to the maximum of the scale. (Research Salary Scales - University of Galway)

Closing date for receipt of applications is 17:00 (Irish Time) on 31st October 2024. It will not be possible to consider applications received after the closing date.

Please review full job description for further details and essential requirement

JOB DESCRIPTION





Job Description:

The successful candidate will explore the development of machine learning and AI methods for application to 3D printing. This will involve collaboration with Dr. Andrew Daly's lab at CÚRAM, University of Galway. The successful candidate will join an existing team of researchers focused on the development of machine learning enabled adaptive 3D printing.

Duties:

- Simulate the 3D printing process.
- Develop novel machine learning/AI algorithms.
- Apply these AI algorithms to 3D printing hardware.
- Gather data related to the project.
- 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, 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.
- Any other duties assigned commensurate to this level of post.

ELIGIBILITY REQUIREMENTS

Essential Requirements:

- PhD in Computer Science, Engineering, or a related technical discipline. PhD should be awarded or near completion (Thesis submitted and awaiting viva prior to start date)
- Strong experience with computer programming.
- Knowledge of artificial intelligence or 3D printing.
- Excellent publication record.
- Extremely strong written and verbal English communication skills.

Desirable Requirements:

- Experience with Python.
- Experience with 3D printing.





- Experience with deep learning, reinforcement learning, multi-agent systems, or computer vision.
- Minimum of two first-author publications in a relevant high-impact journal or conference.

CONTINUING PROFESSIONAL DEVELOPMENT

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Further Information/Links

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