UNIVERSITY OF LINCOLN
JOB DESCRIPTION

JOB TITLE	Research Assistant in Machine Learning
DEPARTMENT	School of Agri Food Technology and Manufacturing (SAFTMan)
LOCATION	Lincoln Campus

JOB NUMBER	CHS216	**GRADE**	6	**DATE**	April 2025

REPORTS TO	Simon Parsons

CONTEXT

The University of Lincoln is seeking to appoint a part-time Research Assistant in Data Science. This post sits within the School of Agri-food Technology and Manufacturing (SAFTMan), an interdisciplinary academic unit in the university's College of Health & Science. Applicants should hold a BSc (MSc desirable) in a related field and should be able to demonstrate an excellent track record in Data Science, Artificial Intelligence Machine Learning, or a related field. Specific experience in sustainable agriculture or agri-food production is preferred but not required.

Candidates are expected to have strong mathematical and programming skills (e.g. Python) and be able to work on software projects using modern tools and environments (e.g. github, docker, Ubuntu). Successful candidates will be responsible for contributing to research on the assigned project, as directed by the Principal Investigator, and in collaboration with other project team members.

For informal enquiries about the posts, please email Prof Simon Parsons (sparsons@lincoln.ac.uk). This is a part-time (0.5FTE) position until the end of September 2025, with the option ot extend if additional funding is secured.

The University of Lincoln is a leading centre in the UK for research into agri-food technology, particularly the application of AI and robotics to all areas of food production. Members of the College of Health & Science participate in many collaborative research projects, funded by the UK Research Councils, Innovate UK and Horizon 2020. The University leads the £10.9m UKRI AI Centre for Doctoral Training in Sustainable Understandable agri-food Systems Transformed by Artificial Intelligence (SUSTAIN), with University of Aberdeen, Univesity of Strathclyde and Queen's University Belfast; and the £6.9m EPSRC Centre for Doctoral Training in Agri-Food Robotics, with the Universities of Cambridge and East Anglia. University facilities include an experimental farm and food factory, dedicated robotics research labs, and a fleet of state-of-the-art agricultural robots. The post will be based in at the University of Lincoln's Riseholme campus, about 5 miles from the Lincoln city centre.

JOB PURPOSE

The Research Assistant will be responsible for conducting research on the project, as directed by the Principal Investigator, and is expected to operate with a significant degree of autonomy. They are not expected to operate as an independent researcher.

The RA will contribute to training workshops and development of on-line learning materials.

KEY RESPONSIBILITIES

Literature Surveys

Undertake literature surveys and other investigations of the state-of-the-art, and prepare reports as required.

Programme of Research

Undertake a programme of independent research, under the direction of their Line Manager, demonstrating a significant level of autonomy.

Lead in the production of high quality research outputs, including software systems and documentation, experiment design and analysis, technical reports, papers and other publications of national/international standing. Lead and collaborate in the development of research grants.

Project Management

Perform self-management of project activities, including planning, scheduling, monitoring and regular reporting on progress.

Liaison and Networking

Identify and liaise with internal and external collaborators, and with colleagues in the College, maintaining positive and effective working relationships.

Internal Research Activities

Participate in and help to organise internal research activities, including seminars, research meetings and conferences.

Continuous Professional Development

Undertake continuous professional development activities.

Grant Applications

Lead on and contribute to the production of grant applications.

Teaching Support

Engage in teaching support activities, up to a maximum of three hours per week and for no more than two modules per annum. Aid in the supervision of postgraduate research students.

In addition to the above, undertake such duties as may reasonably be requested and that are commensurate with the nature and grade of the post.

ADDITIONAL INFORMATION

Scope and dimensions of the role
This is a research focussed role.

Key working relationships/networks	
Internal	**External**
- Line Manager - School Director of Research - Head of School - Other research and academic staff within the school - Administrative and technical staff within the school	- Research collaborators, relevant academic and professional groups - Sponsors and clients, relevant national, regional and international networks in the Intelligent Robotics communities

UNIVERSITY OF LINCOLN
PERSON SPECIFICATION

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Selection Criteria	Essential (E) or Desirable (D)	Where Evidenced Application (A) Interview (I) Presentation (P) References (R)
Qualifications:		
BSc in a related subject area (e.g. Computer Science or Engineering)	E	A
MSc or equivalent (relevant and advanced work experience)	D	A
Extensive knowledge specific to one or more of the following areas: **machine learning, data science, artificial intelligence, robotics, autonomous systems**	E	A/I
Experience:		
Evidence of significant activity in one or more of the following areas: **machine learning, data science, artificial intelligence**	E	A/I
Extensive experience of relevant research methods	E	A/I
Authorship of research outputs of national/international standing (academic conferences and journals)	D	A/I
Interest in the application of intelligent systems to agriculture and/or horticulture	E	A/I
Teaching support	D	A/I
Skills and Knowledge:		
Advanced skills in at least one language commonly used for research computing, e.g. Python, C/C++	E	A/I
Advanced knowledge of numerical methods, data structures and algorithms	E	A/I
Understanding of relevant high-performance computing, cloud computing, virtualisation and container technologies	D	A/I
Expertise in several specialist tools related to data science, e.g. scikit-learn, OpenCV, Matlab, github	E	A/I
Knowledge of technologies and their respective strengths and weaknesses for the development of data handling and data-backed applications	D	A/I
Experience designing and implementing experiments with software systems	D	A/I
Ability to design, conduct and project manage original research in the subject area	D	A/I
Excellent written communication, including the ability to write reports and research outputs	E	A/I
Ability to prioritise own workload and work to specified deadlines under pressure	E	A/I
Ability to communicate complex subjects orally	E	A/I
Skills specific to project/area	E	A/I

Competencies and Personal Attributes:		
Flexible approach to workload	**E**	**I**
Ability to work on own and as part of a team	**E**	**I**
Enthusiasm for and serious commitment to high-quality research	**E**	**I**
Good interpersonal skills	**E**	**I**
Strong attention to detail	**E**	**I**

Essential Requirements are those, without which, a candidate would not be able to do the job. **Desirable Requirements** are those which would be useful for the post holder to possess and will be considered when more than one applicant meets the essential requirements.

Author	ES	**PBP**	AG