



UNIVERSITY OF
LINCOLN

UNIVERSITY OF LINCOLN JOB DESCRIPTION

JOB TITLE	Post Doctoral Research Associate (PDRA) in Defence & Security AI				
DEPARTMENT	Centre for Defence & Security AI				
LOCATION	Lincoln Campuses				
JOB NUMBER	CHS237	GRADE	7	DATE	July 2025
REPORTS TO	Director, CDSAI				

CONTEXT

The Centre for Defence & Security AI (CDSAI) at the University of Lincoln is seeking to appoint a Postdoctoral Research Associate (PDRA) in Artificial Intelligence. CDSAI is a new university research and innovation centre launched in 2024, strongly linked to the UK's defence and security establishment (military, government, industry) at national and regional levels. The growth of the Centre is a university priority and investment is being made in hiring an excellent team to drive its success.

Applicants should hold a PhD and must be able to demonstrate an excellent track record in one or more areas of Artificial Intelligence. Candidates are expected to have strong mathematical and programming skills (e.g. Python, C++), knowledge of computer vision and data mining tools (e.g. OpenCV, scikit-learn, tensorflow, pytorch) and be able to work on group software projects using modern tools and environments (e.g. github, docker, Ubuntu). Interest in applying AI within the defence and security sectors is essential, but experience in these domains is not required.

Successful candidates will be expected to design, conduct and manage original research and deliver innovation projects in artificial intelligence applied in defence and security, working directly with industry and sometimes governmental or military collaborators. Evidence of authorship of research outputs of international standing is essential, as is the ability to work collaboratively as part of a team, including excellent written and spoken communication skills. The position offers the opportunity to engage in collaboration within an ambitious team, to work with state-of-the-art equipment, and to benefit from excellent support to produce and disseminate original research contributions and otherwise make a meaningful impact. Involvement in securing additional funding for CDSAI will be encouraged, and centre members will be happy to support any such activity.

This post is funded for 18 months years in the first instance, with the option to extend if additional funding is secured. For informal enquiries about the post, please email the Centre Director, [Prof. \(of Practice\) Fiona Strens \(fstrens@lincoln.ac.uk\)](mailto:fstrens@lincoln.ac.uk) or [AI lead Prof. Simon Parsons](#). Note that we are also advertising for a Research Software Engineer post. There are 2 posts available in total at this level and we will recruit the 2 best candidates from across both sets of candidates.

The University is committed to building a culturally diverse institution, where all staff and students can flourish and feel valued for their contribution and individuality. We are encouraging talented people, whatever their background, to work and study here. All

appointments are made on merit. Candidates must be willing to go through UK national security vetting processes.

The successful candidate will be part of CDSAI, a new and ambitious research and innovation centre. The team is small to start out and there will be a close pool of colleagues, focused on the development of AI-based software systems, to work with as well as a much larger and multi-disciplinary network of colleagues in the wider university. By joining at this stage, there is plenty opportunity for someone ambitious to have significant impact, take on leadership roles, secure high visibility and to take their career to the next level, knowing that there will strong support from the University.

JOB PURPOSE

The Post Doctoral Research Associate is responsible for conducting research on their assigned project(s), as directed by their supervisor, is expected to operate with a significant degree of autonomy, but not as an independent researcher. Some of the work will be collaborative with colleagues from local companies. The post holder may be given opportunities to help supervise the work of more junior researchers (e.g. masters students) and provide guest lectures in taught modules, guided by their supervisor.

The post-holder will be based in the newly-refurbished and well-equipped 'DecisionWorks' location on the main Lincoln campus (Brayford). This is part of a collaborative setting with researchers, local entrepreneurs, companies large and small, and defence stakeholders close-to-hand. Some flexibility on working patterns is acceptable if compliant with the University's policy on hybrid working, and some travel to external conferences and stakeholder meetings will be expected.

KEY RESPONSIBILITIES

Literature Surveys
Undertake literature surveys and other investigations of the state-of-the-art, and prepare reports as required.
Programme of Research
<p>Undertake a programme of research under the direction of the Research Supervisor, demonstrating a significant level of autonomy.</p> <p>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.</p>
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
Contribute to the production of grant applications.
Teaching Support
Potentially engage in teaching support activities, up to a maximum of six 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 and innovation focused role.

Key working relationships/networks

Internal	External
<ul style="list-style-type: none">• Research Supervisor (Line Manager)• CDSAI leadership & team• Head of School (SEPS)• Other research and academic staff• Administrative and technical staff	<ul style="list-style-type: none">• Research collaborators, relevant academic and professional groups• Sponsors and clients, relevant national, regional and international networks in the Artificial Intelligence and/or Defence and Security communities



UNIVERSITY OF
LINCOLN

UNIVERSITY OF LINCOLN PERSON SPECIFICATION

JOB TITLE	Post Doctoral Research Associate	JOB NUMBER	CHS237
------------------	----------------------------------	-------------------	--------

Selection Criteria	Essential (E) or Desirable (D)	Where Evidenced Application (A) Interview (I) Presentation (P) References (R)
Qualifications:		
PhD or equivalent (good candidates may be accepted with a PhD pending, subject to publication record).	E	A
Extensive knowledge specific to one or more of the following areas: artificial intelligence, machine learning, computer vision, signal processing.	E	A/I
Experience:		
Evidence of significant activity in one or more of the following areas: artificial intelligence, machine learning, computer vision, signal processing.	E	A/I
Extensive experience of relevant research methods	E	A/I
Authorship of research outputs of national/international standing (academic conferences and journals).	E	A/I
Interest in the application of artificial intelligence in the service of defence and security.	E	A/I
Interdisciplinary work relevant to defence and security.	D	A/I
Working with industry and/or government partners to form long-term mutually beneficial partnerships	D	A/I
Teaching support	D	A/I
Skills and Knowledge:		
Advanced skills in at least one programming language (e.g. C/C++, Python) and software tools/environments (e.g. github, Ubuntu) commonly used for research computing	E	A/I
Advanced knowledge of numerical methods, data structures and algorithms	D	A/I
Understanding of relevant high-performance computing, cloud computing, virtualisation and container technologies	D	A/I
Expertise in two or more specialist tools e.g. OpenCV, scikit-learn, tensorflow, pytorch	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 and analysing results	E	A/I
Ability to design, conduct and manage project-based original research in the relevant subject area	E	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 and enthusiastic approach to work	E	I
Ability to self-motivate and work alone and as part of a team	E	I
Enthusiasm for and serious commitment to high-quality work	E	I
Proactive, results-oriented and able to take initiative	E	I
Good interpersonal skills	E	I
Strong attention to detail	E	I
Business Requirements:		
Flexible hours to accommodate occasional evening and weekend work	D	A/I
Ability to travel within the UK on occasion	D	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	SP	PBP	GPH
---------------	----	------------	-----