

Job title	Research Fellow in Human-centric AI (Title will be 'Research Associate' where an appointment is made before PhD is completed)	Job family and level	Research and Teaching Level 4 (Appointment will be Level 4 Career training grade where an appointment is made before PhD has been completed)
School/ Department	Computer Science	Location	Jubilee Campus

Purpose of role

We are looking to recruit a postdoctoral researcher to join the growing [Lab for Uncertainty in Data and Decision Making \(LUCID\)](#) in the School of Computer Science. Applicants should have a relevant background in quantitative analysis, model-fitting and/or optimisation, with a PhD in computer or social science, or a related area with the relevant expertise.

You, the successful applicant, will contribute toward interdisciplinary research on advancing our understanding of human—and AI-based decision-making. Specifically, you will be working on the estimation of parameters for newly developed models which decompose the drivers underlying decision-making. The work has a strong focus on developing better-explainable AI on the computer science side, while building (on) advances in cognitive science and psychology on the other.

You will be part of an [international research project](#) between the University of Nottingham in the UK and Purdue University in the US. As a member of the research team, you will be based within the LUCID research group at the University of Nottingham's Jubilee Campus, with opportunities for travel, including to the partner institution.

You will have expertise in areas such as optimisation, parameter estimation and model-fitting and strong programming skills. You will be keen to innovate and excited to learn more about areas which you may not yet be familiar with, including from other disciplines, integrating insights into your research and associated publications. A prior background in interdisciplinary research would be desirable but is not essential. Your key activities will be to co-design experiments to parameterise and analyse aggregation models with the research team, lead the software implementation and execution of these experiments and work with the research team in the writing-up and dissemination of research outputs, including their presentations at conferences as appropriate.

You will be expected to undertake independent research as well as working as part of a team - this will include using approaches or methodologies and techniques appropriate to the type of research and being responsible for writing up your work in order to contribute to project deliverables and published outcomes. You will have the opportunity to use your initiative and creativity to identify areas for research, and extend your research portfolio.

	Main responsibilities (Primary accountabilities and responsibilities expected to fulfil the role)	% time per year
1	To develop research objectives and proposals for own and/or collaborative research area.	10%
2	To plan and conduct research using recognised approaches, methodologies and techniques within the research area.	30%
3	To analyse and illuminate data, interpret reports, evaluate and criticise texts and bring new insights to research area.	10%

4	To write up research work for publication and/or contribute to the dissemination at national/international conferences, resulting in successful research outputs.	20%
5	To identify opportunities and assist in writing bids for research grant applications. Prepare proposals and applications to both external and/or internal bodies for funding, contractual or accreditation purposes.	10%
6	To build relationships with both internal and external contacts in order to exchange information, to form relationships for future collaborations and identify potential sources of funds and/or opportunities for collaboration.	5%
7	To co-ordinate the operational aspect of research networks, for example, arranging meetings and updating web sites etc and contribute to collaborative decision making with colleagues in area of research.	
8	To provide support, guidance and supervision to other staff, where appropriate in own area of expertise.	5%
9	To supervise undergraduate and/or postgraduate students projects, fieldwork and placements, as appropriate. To participate in the assessment of student knowledge and co-supervise projects at Masters level.	
10	To collaborate with academic colleagues on areas of shared interest for example, course development, collaborative or joint research projects.	
11	To plan and manage own research activity and resolve problems, if required, in meeting own/team research objectives and deadlines in collaboration with others.	10%
12	To utilise and contribute to organising research resources and facilities, laboratories and workshops as appropriate.	
13	To make a contribution to teaching, for example through laboratory demonstrations, lectures to postgraduate workshops and/or delivery of Level 1 modules.	

Person specification

	Essential	Desirable
Skills	<ul style="list-style-type: none"> ▪ Practical experience with parameter optimization and model fitting techniques. ▪ Strong programming skills. ▪ Strong ability in engaging with and leveraging the scientific literature in particular in the areas of information aggregation/fusion and decision-making. ▪ Analytical ability to facilitate conceptual thinking, innovation and creativity. ▪ Excellent oral and written communication skills, including the 	<ul style="list-style-type: none"> ▪ Ability to engage with the scientific literature across disciplines, specifically in computer science and psychology. ▪ Ability to assess and organise resource requirements and deploy effectively. ▪ Interface design and visualization skills.

	<p>ability to communicate with clarity on complex information.</p> <ul style="list-style-type: none"> ▪ Ability to build relationships and collaborate with others, both internally and externally. 	
Knowledge and experience	<ul style="list-style-type: none"> ▪ Experience in designing, implementing and evaluating experiments, for example to compare and contrast the performance of different algorithms. ▪ Experience of designing and delivering presentations and/or other dissemination-focused activities. ▪ A demonstrable interest in understanding and advancing decision-making both at explainable AI and human levels. 	<ul style="list-style-type: none"> ▪ Previous experience in information aggregation/fusion techniques. ▪ Previous experience in interdisciplinary research ▪ Experience of publishing to and communicating with audiences from different disciplines or backgrounds. ▪ Experience in engaging with a range of external stakeholders and managing relationships.
Qualifications, certification and training (relevant to role)	<ul style="list-style-type: none"> ▪ PhD or equivalent in relevant subject area or the equivalent in professional qualifications and experience of relevance to the research area. ▪ OR near to completion of a PhD 	<ul style="list-style-type: none"> ▪ Master's Degree, or equivalent in relevant subject area.



As part of this, we welcome a diverse population to join our work force and therefore encourage applicants from all communities, particularly those whose protected characteristics under the Equality Act 2010, are not well-presented in our current staff body.



The University is a signatory of the Declaration on Research Assessment (DORA). As such we commit to focus on the scientific content of publications (where requested or provided as part of the recruitment and selection process) as a basis for review of quality, and consideration of value and impact of research conducted, rather than any proxy measures such as Journal Impact Factor.

Expectations and behaviours

The University has developed a clear set of core expectations and behaviours that our people should be demonstrating in their work, and as ambassadors of the University's strategy, vision and values. The following are essential to the role:

- Valuing people** Is friendly, engaging and receptive, putting others at ease. Actively listens to others and goes out of way to ensure people feel valued, developed and supported.
- Taking ownership** Is clear on what needs to be done encouraging others to take ownership. Takes action when required, being mindful of important aspects such as Health & Safety, Equality, Diversity & Inclusion, and other considerations.
- Forward thinking** Drives the development, sharing and implementation of new ideas and improvements to support strategic objectives. Engages others in the improvement process.
- Professional pride** Is professional in approach and style, setting an example to others; strives to demonstrate excellence through development of self, others and effective working practices.
- Always inclusive** Builds effective working relationships, recognising and including the contribution of others; promotes inclusion and inclusive practices within own work area.

Key relationships with others

