



<b>Job title</b>	Research Associate/Fellow	<b>Job family and level</b>	Research and Teaching Level 4A/4CTG/4 Research and Teaching Level 4 Training Grade/Level 4
<b>School/ Department</b>	Nottingham University Business School / N/Lab	<b>Location</b>	Jubilee Campus

## Purpose of role

N/Lab at Nottingham University Business School is seeking to appoint a full-time Research Fellow to support Prof James Goulding and Dr John Harvey. The position is funded until 30 September 2025. This technical data science position is funded by a new ESRC Project grant titled “Data Donation for Climate Action: Linking Psychological Perceptions to Behaviour via Digital Footprints”, which starts on 1st October 2024. A parallel position is being advertised for a research fellow within the University of Nottingham’s Psychology Department and successful applicants will work closely with one another.

This project will build on the latest thinking in Data Science and Psychology to develop new methods, tools, and infrastructure that harness personal Digital Footprint data donation to test and enhance theories of data-driven environmental behaviour. You will apply your knowledge of both qualitative and technical methods (statistical, machine learning and variable importance methods) to help shed light on the link between store card data and real world effects. This role will, in particular, help match store card data donated by participants with their perceptions of the environmental impact of food commodities, alongside examination of barriers and ethical issues associated with personal data donation.

The person appointed will have the opportunity to use their initiative and creativity to identify areas for research, develop research methods and extend their research portfolio.

	<b>Main responsibilities</b> (Primary accountabilities and responsibilities expected to fulfil the role)	<b>% time per year</b>
1	<p><b>Research:</b></p> <ul style="list-style-type: none"> <li>▪ To develop research objectives and/or collaborative research areas in targeting the use of digital footprint data to understand environmental impacts</li> <li>▪ To gather, analyze and illuminate data, synergizing relevant publications in the fields of data science and environment, developing new analysis techniques, and bringing new insights.</li> <li>▪ To perform high quality research in descriptive analytics; predictive ML modelling; and variable importance analysis (e.g. SHAP/MCR);</li> <li>▪ To prepare research materials, including compilation of articles, literature reviews and document datasets that support the project.</li> </ul>	80%

	<ul style="list-style-type: none"> <li>▪ To write up research work for publication and/or contribute to the dissemination at national/international conferences, resulting in successful research outputs.</li> <li>▪ To help coordinate the operational aspects of research progress towards key grant milestones, supporting collaborative decision-making with colleagues across schools and leading interactions with stakeholders within health services.</li> <li>▪ To identify opportunities and assist in writing bids for research grant applications.</li> <li>▪ To work collaboratively with corresponding PDRA on the programme working in the department of Psychology.</li> </ul>	
2	<p><b>External Engagement:</b></p> <ul style="list-style-type: none"> <li>▪ To generate media content, blogs, reports, policy briefings and other audience-specific material.</li> <li>▪ To help build relationships with internal and external contacts in order to exchange information, form relationships for future collaborations and identify potential sources of funds and/or opportunities for long-term or short-term collaborations.</li> <li>▪ To help foster external relationships with appropriate organisations involved in the grant.</li> </ul>	20%

## Person specification

	<b>Essential</b>	<b>Desirable</b>
<b>Skills</b>	<ul style="list-style-type: none"> <li>▪ Ability to perform high quality research in descriptive analytics; predictive ML modelling; and/or variable importance analysis.</li> <li>▪ Excellent oral and written communication skills, including the ability to communicate with clarity on complex information.</li> <li>▪ Ability to work independently and to take initiative.</li> <li>▪ Ability to analyse and interpret data, evaluate and criticise texts and bring new insights.</li> <li>▪ Ability to creatively apply relevant research approaches, models, techniques and methods.</li> <li>▪ Ability to assess and organise resource requirements.</li> <li>▪ Ability to build relationships and collaborate with others, both internally and externally.</li> <li>▪ Ability to work flexibly and supportively as part of an interdisciplinary team.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Research expertise of inspecting, cleansing, transforming, and modelling data with the goal of discovering useful information.</li> <li>▪ Expertise in application of machine learning to shopping data logs</li> <li>▪ Ability to visualize analytics results creatively/geospatially.</li> <li>▪ Ability to foster a research culture and commitment to learn in others</li> <li>▪ A desire to contribute to the wider research culture of the School..</li> </ul>
<b>Knowledge and experience</b>	<ul style="list-style-type: none"> <li>▪ Experience in analysing/working with large-scale digital footprint data logs (e.g. loyalty-card data, behavioural data logs, etc.).</li> <li>▪ Experience of research projects working collaboratively with external data partners.</li> <li>▪ Experience in use of survey development and experimental research methodologies.</li> <li>▪ Experience in online participant recruitment, ethical considerations regarding research, and data management.</li> <li>▪ Experience with relevant statistical and data mining software, e.g. Python, R, SQL.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Experience in analyses related to model understanding explanation and causality within analytical models</li> <li>▪ Experience of working with mass-data sets ("big data")</li> <li>▪ Experience and a passion for research in the area of analytics for social good</li> <li>▪ Experience of developing new approaches, models, and techniques in a relevant research domain.</li> <li>▪ Experience with public speaking, and confidence to represent the funded programme at events and meetings.</li> </ul>
<b>Qualifications, certification and training (relevant to role)</b>	<ul style="list-style-type: none"> <li>▪ PhD or equivalent (or close to completion) in relevant subject area that has utilised a range of data modelling, statistical and/or computational methods in analytics.</li> </ul>	



## 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

