

RESEARCH ASSOCIATE in VR for Enabling Design

Full-time (1 FTE, 37 hours per week); Fixed-term for 12 months

Job Ref: REQ250709

As part of the University's ongoing commitment to redeployment, please note that this vacancy may be withdrawn at any stage of the recruitment process if a suitable redeployee is identified.

Internationally recognised for its contribution to the study of sport, exercise and health, the School has wide-ranging expertise, encompassing such diverse areas as biomechanics, medicine, molecular and cellular biology, nutrition, pedagogy, psychology, physiology, sociology, economics and sport management.

The School has an active and ambitious plan to grow capacity and influence through developments as part of the National Centre for Sport and Exercise Medicine, Loughborough in London, and StemLab.

The School is extremely proud to have held an [Athena Swan Silver Award](#) since 2013, recognising the commitment and work of the School in addressing gender inequalities in Science, and to improving career progression for female academics.

The School is committed to ensuring that female students and staff are able to achieve their full potential, and provides a flexible and open working culture to enable staff to maintain a work-life balance.

We support our Athena SWAN initiatives by investing in:

- Bespoke leadership programmes to encourage and build confidence in women to take leadership roles.
- Working lunches, where needed, to enable meetings to be held between 10.00am and 4.00pm (as per our Silver Action Plan).
- Monthly coffee mornings which provide opportunities for networking and develop a sense of community within the School.

We also welcome applications from those who are looking to work part-time.

Research and Innovation

Research and Innovation within the School is characterised by excellence and breadth, and its quality was recognised in the 2021 Research Excellence Framework where Loughborough University ranked top for research power (GPA x volume) in Sport and Exercise Sciences, Leisure and Tourism. Loughborough University has also placed Number 1 in the QS world ranking for sport-related subjects for nine consecutive years (2017-2025, every year since the category was introduced). A broad range of social and natural sciences contribute to the School's research and innovation activity which is organised within three overlapping themes:

- **Sport performance**, understanding and supporting the enhancement of athletes' performance in competitive sport;
- **Lifestyle for health and well-being**, encompassing research across several disciplines with the common goal of facilitating healthy living and ageing across the lifespan; and
- **Sport, Business and Society**, exploring how individuals, communities and organisations engage with and facilitate sport and exercise opportunities.

The School's research themes articulate in particular with the Sport and Exercise Beacon and the Health and Wellbeing Global Challenge which are key elements of the University's [CALIBRE](#) (Collective Ambition at Loughborough for Building Research Excellence) framework.

Project Summary

The School of Sport, Exercise and Health Sciences (SSEHS) at Loughborough University, funded by Loughborough alumni, aims to further develop our Dementia Inclusive House activities focusing on Co-Design using Virtual Reality. The main aim of this project is to develop techniques using Virtual Reality (VR) to enable people living with dementia to collaborate with architects and designers of technology in designing enabling and empowering homes and technology which support their independence, health and quality of life. After our successful Enterprise funded project 'The Chris and Sally house' in Watford, with the process and outcomes described in two books, our alumni

wanted to further support this important work which places people with dementia and their needs at the center of all our activities.

For the first part of the project we are looking to expand our team with an architect who can showcase his/her experience of projects which used VR in co-design of environments. Evidence for this experience needs to be rendered via papers, reports, video/film etc. The candidate should be able and willing to work with people living with dementia. Experience of working with software to implement immediate changes in VR adjusting environments are necessary. Academic experience including a PhD in VR. In depth knowledge of architecture related to inclusive design or a related area are necessary. Knowledge and experience of dementia and inclusive design are desirable.

Job Description

Job Family & Grade: Specialist and Supporting Academic (Research) Grade 6

Job Purpose: The Research Associate will take a leading role in the setting up and execution of the Virtual Reality lab for Co-Design of Dementia Inclusive Environments which will serve both SSEHS the and the wider University in terms of teaching and research activity.

Candidates should have a PhD in architecture and computer science/human-computer interaction focusing on VR. Experience in working with digital technology is appreciated. In particular, skills in 3D modelling (e.g. Blender) and the creation of interactive virtual worlds (e.g. Unity/Unreal) are desirable. We particularly welcome candidates from diverse backgrounds.

Job Duties:

- To develop and put in place VR set-ups, equipment and protocols for SSEHS
- To manage and be responsible for conducting the day to day running of related projects in these spaces.
- To manage the requisite teaching (UG thesis project students only) and research activity.
- To formulate detailed plans for the project based on broad guidance from the project team and engage with individuals and groups about involvement in the projects.
- Facilitate business-narrative workshops, working with selected members of the project team.
- To feed back to the project team on progress, to make recommendations for next steps.
- Write up regular progress reports and present outcomes to all Investigators and Collaborators.
- Travel to attend meetings and make presentations both within the project partners working group and to external stakeholders.
- To support the project team by enhancing relationships with existing collaborators and by assisting the establishment of relationships with new collaborators.
- To invite people with dementia and work together with people with dementia as co-designers
- To write research papers suitable for publication in high quality academic journals.
- To attend and contribute to conferences.
- To contribute to project promotion and public engagement events.
- Contribute ideas for new research and enterprise directions.
- To co-write new grant applications to further expand this area of research and enterprise
- Maintain confidentiality at all times and ensure that intellectual property (IPR) agreements are not violated.
- To assist the academic staff in the project team with the supervision of undergraduate project work and day-to-day supervision and support of other researchers.
- Where appropriate, to deliver teaching, tutorial and laboratory sessions to students.
- Engage in training programmes in the University (or elsewhere) that are consistent with the needs and aspirations of the project and those of the Department.
- Undertake other duties as may be reasonably requested and that are commensurate with the nature and grade of the post.

Points to Note:

The purpose of this job description is to indicate the general level of duties and responsibility of the post. The detailed duties may vary from time to time without changing the general character or level of responsibility entailed.

Special Conditions:

All staff have a statutory responsibility to take reasonable care of themselves, others and the environment and to prevent harm by their acts or omissions. All staff are therefore required to adhere to the University's Health, Safety and Environmental Policy & Procedures.

All staff should hold a duty and commitment to observing the University's Equity, Diversity and Inclusion policy and procedures at all times. Duties must be carried out in accordance with relevant Equity, Diversity and Inclusion legislation and University policies/procedures.

Successful completion of probation will be dependent on attendance at the University's mandatory courses which include Belonging and Inclusion and, where appropriate, Recruitment and Selection.

Organisational Responsibility:

Reports to Professor Eef Hogervorst, Professor of Psychology

Person Specification

Your application will be reviewed with respect to meeting the essential and desirable criteria listed below. Your application will be reviewed against the essential and desirable criteria listed below. Applicants are strongly advised to explicitly state and evidence how they meet each of the essential (and desirable) criteria in their application. Stages of assessment are as follows:

- 1 – Application
- 2 – Test/Assessment Centre/Presentation
- 3 – Interview

ESSENTIAL

Area	Criteria	Stage
Experience	Experience and understanding of User Experience Design as a body of knowledge in HCI, Architecture and Design	1,3
	An understanding of and commitment to co-creation and co-design principles working with PPIE	1,3
	Authoring original work for academic journal papers, conference papers or technical reports	1
Skills and abilities	Programming of VR environments and adaptations of such environments upon demands for change from PPIE	1,3
	Organisational skills for project management	1,3
	Data collection and analysis skills	1,3
	Excellent written and oral communication skills	1,3
	Self-motivated with ability to meet deadlines	1
	Ability to write project reports and make technical presentations to industrial and academic research groups	1,3
	Knowledge of relevant Health & Safety issues	1,3
	Ability to liaise with technical and industry groups as collaborators for Innovate UK proposals	1,3
	Experience of -or willingness to- working with people with dementia, and excellent people's skills and empathy	1,3
Training	Demonstrate evidence of having undertaken further training	1,3
Qualifications	PhD (or near completion)	1,3
Other	Commitment to observing the University's Equity, Diversity and Inclusion policy at all times.	3

DESIRABLE

Area	Criteria	Stage
Experience	Good understanding of Hierarchical Task Analysis and Cognitive Work Analysis	1,3
	Experience of qualitative research especially focus groups and interviews.	1,3
	Working in a high-quality academic research environment.	1,3
Knowledge	Knowledge of current research frameworks and policy debates surrounding sport-related neurodegeneration, with a particular focus on longitudinal approaches to monitoring cognitive health in athlete populations.	1,3
Skills and abilities	3D modelling (e.g. Blender)	1,3
	Creation of interactive virtual worlds (e.g. Unity/Unreal) and adaptation.	1,3
	Have an understanding of allocation of function and its role in the project	1,3
Qualifications	PhD in VR and computer science/human-computer interaction.	1,3

Other	Travel / Able to travel Independently / Be flexible with the FTE arrangements to allow efficient data collection within the research team.	1,3
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Conditions of Service

This full-time post is offered on a fixed-term contract for 12 months, within the *Specialist and Supporting Academic (Research)* job family at Grade 6 (£35,116 per annum). Starting salary to be confirmed on offer of appointment.

The appointment will be subject to the University's normal [Terms and Conditions of Employment](#) for staff on Grade 6 and above.

The University is committed to enabling staff to maintain a healthy work-home balance and has a number of [family-friendly policies](#).

We also offer an on-campus nursery with subsidised places, subsidised places at local holiday clubs and a childcare voucher scheme (further details are available at: [Childcare Support](#)).

In addition, the University is supportive, wherever possible, of flexible working arrangements. We strive to create a culture that supports equality and celebrates diversity throughout the campus. The University holds a Bronze [Athena SWAN](#) award which recognises the importance of support for women at all stages of their academic career.

Loughborough University is committed to allowing its employees to work [dynamically](#) with a combination of working on campus and remotely, where possible. This has been identified as a role that could work dynamically and, if successful, your line manager will discuss these informal arrangements with you. Please note that there is a general expectation that the successful candidate will spend the majority of time working on the Loughborough campus.