UNIVERSITY OF Reading

JOB DESCRIPTION

Vacancy reference:	SRF28848
Post Title:	Post-Doctoral Research Fellow
Grade:	Grade 6
School/Department:	SPCLS
Reports to:	Andrew Glennerster
Responsible for:	n/a

Purpose

A post-doctoral researcher is required to carry out experiments as part of an EPSRC/Dstl-funded research programme entitled "Understanding Scenes and Events through Joint Parsing, Cognitive Reasoning and Lifelong Learning". The researcher would join a US/UK consortium including teams from Oxford, Birmingham, Glasgow, UCLA, MIT, CMU and Yale.

The aim of this post is primarily to analyse data from freely moving human observers in virtual reality to help develop models of human navigation and 3D representation and to contribute to a debate about adding 'human common sense' to computer vision algorithms. Interaction with computer vision and colleagues and other cognitive researchers on this MURI consortium (Multi-disciplinary University Research Initiative, US Department of Defence) is a critical element of the post.

Main duties and responsibilities

Research:

- Undertake research under the supervision of the Principle Investigator with the primary focus on modelling experiments or simulations (Matlab/Python). May also programme experiments (Matlab/Unity)
- May recruit and train participants and gather data from participants (e.g. Matlab)
- Contribute to the development of research proposals and projects
- Contribute to writing proposals for research grants and applications for future funding
- Take the lead in writing of papers for publication in leading academic journals and other relevant media
- Disseminate research findings and establish a national reputation through participation in national conferences, exhibitions etc.
- Implement research methodologies that add to knowledge and understanding appropriate to the discipline
- Collaborate with colleagues within the University in the development of original research
- Analyse, model and interpret research data (e.g. Matlab)

Enterprise & Outreach:

- Carry out consulting or specialist activities under the supervision of a project leader.
- Carry out trials and testing as part of a team
- Support researchers from other laboratories in the MURI group particularly in relation to models of human navigation and developing collaborative experiments in virtual reality

- If the opportunities can be arranged, to visit other laboratories in the MURI-funded consortium for exchange visits
- Attend and represent the research group at relevant seminars, conferences, exhibitions and other events, either with other members of the group or alone
- Contribute to existing activities of the research group including the journal club
- Participate in scientific meetings related to the project in the UK and USA including the upcoming annual MURI-funded workshop in Edinburgh, September 2019
- Ensure that the results of the research are brought to publication

Leadership & Management:

- Participate in the supervision of graduate students working on related projects;
- Participate in project teams and steering groups at a Department or School level
- Undertake project-related administration such as organising regular project meetings, departmental presentations or seminars

Supervision received

The Research Fellow will have regular meetings with the Principal Investigator who will direct the project and monitor progress. The detailed design of experiments will depend on discussions between the Research Fellow and Principal Investigator.

Supervision given

The Research Fellow will help supervise project students (3rd year undergraduates and MSc students) carrying out projects in the Virtual Reality laboratory. They will participate in the supervision of graduate students in the laboratory.

Contact

The Research Fellow will report regularly to the PI (Prof Andrew Glennerster) and will hold meetings with colleagues in the consortium who are involved in collaborations.

Terms and conditions

This is a full-time position for 12 months. There are no specific hours of work, but the appointee will be required to work such hours as are necessary to carry out the duties associated with the post.

This document outlines the duties required for the time being of the post to indicate the level of responsibility. It is not a comprehensive or exhaustive list and the line manager may vary duties from time to time which do not change the general character of the job or the level of responsibility entailed.

Date assessed: 21/05/2019

PERSON SPECIFICATION

Job Title	School/Department
Postdoctoral Research Fellow	SPCLS/ Psychology

Criteria	Essential	Desirable
Skills Required	• Excellent computer skills • Excellent analytical and problem-solving skills • Ability to communicate effectively, both orally and in writing • Ability to work to deadlines • Good programming ability • Ability to work both independently and as a member of a team	• Matlab programming and, ideally, experience with Unity or similar. • Python experience • Research and project-related administrative skills
Attainment	• PhD in a relevant area. This is likely to be neuroscience or psychology but could be engineering, computer science or other physical science if the candidate demonstrates a reasonable knowledge of neuroscience and shows a strong enthusiasm to pursue psychology or neuroscience as part of their career. Exceptionally, we would consider a candidate who was close to submission of their PhD thesis. • A good honours degree in relevant subject • Appropriate publication record for career level	
Knowledge	• Knowledge of experimental psychology and/or neuroscience.	• Knowledge of graphics programming and virtual reality tracking and display systems
Relevant Experience	• Experience of public speaking at events/exhibitions etc. • Experience of managing a project • Experience of building and maintaining external contacts/partners in order to drive mutual interests	• Familiarity with psychophysical methods

	Experience with running experiments, analysing the data and evidence of bringing the results to publication.	
Disposition	- Hard working and autonomous - Good organisational and interpersonal skills - The ability to work both within a team as well as independently - A determination to pursue a career in research	

Completed by: Andrew Glennerster   Date: 17/04/2019