Job Description

Job Title:	Postdoctoral Research Associate for Deep Learning and Video/Audio/Image Processing
Department:	Department of Computer Science
Job type:	Full-Time, Fixed-Term, Professional Services
Grade:	RHUL 7
Accountable to:	Prof Li Zhang (Principal Investigator)
Accountable for:	N/A

Purpose of the Post

To be an active member of the department in delivering the research project – Voice-based risk detection for cardiometabolic disease with associated neurodegenerative conditions, so that the overall research objectives of the project are met. To carry out research activities in the field of deep learning and image, video, audio, and signal processing. The role holder will be expected to produce independent, original contributions to the subject area.

Key Tasks

Research

- Design and implement novel deep learning and audio-visual processing algorithms in line with the project's research objectives
- Design, analyse and refine appropriate experiments to validate research hypotheses
- Identify new avenues and directions for future research.

Writing, publication and presentation for academic audiences

- To write up research work for publication in disciplinary peer-reviewed academic journals and contribute to their dissemination at national/international conferences.

Building external stakeholder relationships and networks

- To coordinate relationships and events with research partners and external stakeholders to develop and deliver knowledge exchange towards impact.
- To present regular progress reports on research to members of the research group or to external audiences to disseminate and publicise research findings.

Impact and dissemination with non-academic audiences

- To plan and generate impact-focused material to reach and influence non-academic audiences.
- Liaise on a regular basis with colleagues and students; build contacts and participate in internal networks for the exchange of information and to form relationships for future collaboration.
- To contribute to Royal Holloway's public engagement programme by establishing links with local community groups, industries etc.

• Join external networks to share information and ideas.
Administrative support
• To provide administrative support to the Principal Investigator and research team, as required, to deliver the project core aims and objectives.
Other Duties
The duties listed are not exhaustive and may be varied from time to time as dictated by the changing needs of the University. The post holder will be expected to undertake other duties as appropriate and as requested by their manager.
Our Values
Advancing equity and inclusion is central to our identity as a University of Social Purpose, guided by our values of being Respectful, Innovative, Open, and Daring. We strive to build a fair and inclusive environment for all colleagues and students, where we challenge ourselves and others with integrity, and approach difference with understanding and kindness. Every member of our community is expected to treat others with dignity, work collaboratively across a wide range of backgrounds and perspectives, and contribute to a place where everyone can participate fully and feel valued.

Person Specification

Job Title: PDRA for Deep Learning and Video/Audio/Image Processing
Department: Department of Computer Science

Criteria	Essential	Desirable
Knowledge, Education, Qualifications and Training		
PhD in relevant subject area (or near completion of - it is expected that the appointee will have their PhD awarded within 4 months of the start date)	X	
Proven knowledge of research techniques and methodologies relevant to deep learning, audio/video/image processing, and vision/audio transformers	X	
Demonstrable comprehensive knowledge in the subject area	X	
Knowledge of techniques for large audio/vision language models, medical imaging, and audio-visual classification/diagnosis	X	
Knowledge of generative models and weakly supervised learning		X
Skills and Abilities		
Excellent communication skills	X	
Ability to present complex information effectively to a range of audiences	X	

Excellent programming skills	X	
Ability to plan and execute empirical evaluation	X	
Experience		
Evidence of high-quality top-ranking journal and conference publications	X	
Practical experience of applying specialist skills and techniques required for the role	X	
Evidence of contributing to research bids	X	