Title of studentship/Project name: Machine Learning for Fine Grained Video and Multimodal Understanding

Type of award: PhD Research Studentship

Department: Computer Science

Scholarship Details and eligibility: Open to Home and International students subject to eligibility criteria and award

Duration: 3.5 years

Start Date: May 2023 and October 2023

Application Deadline: Please get in touch as soon as possible, latest by 1st of Dec 2022. Positions will remain open until filled.

PhD Topic Background/Description
Applications are invited for several fully funded PhD studentships in Computer Vision and Machine Learning (up to 3 positions available). The successful candidate will be working on Video Understanding, in one of the following research problems:

- Multimodal Video Understanding (audio-visual and/or video-text) [Dima Damen]
- Video Grounding and Corpus Moment Retrieval [Michael Wray]
- Domain Generalisation and Adaptation [Dima Damen]
- Long-Term Video Object Segmentation [Dima Damen]
- Video-Language Pre-training [Michael Wray]
- Video-Language Explainability and Robustness [Michael Wray]
- Video Synthesis and Manipulation [Dima Damen]
- Long-Tail Learning in Video [Dima Damen]

The successful applicant will work in a vibrant computer Machine Learning and Computer Vision lab, with more than 7 PhD students and 3 postdoctoral researchers working on closely related topics. For an insight into the supervisors’ current and previous works, refer to:

Prof Dima Damen http://dimadamen.github.io/
Dr Michael Wray https://mwray.github.io

Further Particulars

Candidate Requirements
Applicants must hold/achieve a minimum of a Master’s degree (or international equivalent) in computer science, mathematics or other relevant discipline. Applicants without a Master’s qualification may be considered on an exceptional basis, provided they hold a first-class undergraduate degree. Please note, acceptance will also depend on evidence of readiness to pursue a research degree.
Basic skills and knowledge required:

- **Essential:**
  Solid mathematical ability and excellent programming skills. A basic knowledge of Machine Learning and Computer Vision (very useful). An Interest in research and loads of patience.
- **Desirable (not necessary):**
  Prior research expertise in video, language, audio understanding or any combination of these modalities. Prior research expertise in egocentric vision.

**Scholarship Details and eligibility**

Studentships for this research will receive a minimum stipend equivalent to the UKRI tax-free stipend of £17,668 per annum and tuition fees covered for 3.5 years (as a full-time student).

All applicants are invited to express their interests in the allocated posts – both Home and international students.

**Home students**

To be classed as a Home student, candidates must meet the following Eligibility criteria:

- Be a UK National (meeting residency requirements), or
- Have settled status, or
- Have pre-settled status (meeting residency requirements), or
- Have indefinite leave to remain or enter

Residency requirements

- they were living in the EEA or Switzerland on 31 December 2020,
- and they have lived in the EEA, Switzerland, the UK or Gibraltar for at least the last 3 years before the start date of a course in the UK

**International students**

If a candidate does not meet the criteria above, they would be classed as an International student. To attract the very best international students we will consider international applicants for this funding.

**Informal enquiries**

For questions about the research topic please contact Prof Dima Damen Dima.Damen@bristol.ac.uk and Dr Michael Wray Michael.Wray@bristol.ac.uk

For questions about eligibility and the application process please contact SCEEM Postgraduate Research Admissions sceem-pgradmissions@bristol.ac.uk For applications contact Ms Marina Galetaki

**Application Details**

Prior to submitting your application, please send your CV, and all transcripts (in English) to Ms Marina Galetaki at: mg15955@bristol.ac.uk.

If shortlisted, you will be required to attend a total of 2 interviews. Successful applicants will be invited to submit a full application with references. No indication of an offer can be made until we receive a completed application.

To apply for this studentship, submit a PhD application using our online application system [www.bristol.ac.uk/pg-howtoapply]

Please ensure that in the Funding section you tick “I would like to be considered for a funding award from the Computer Science Department” and specify the title of the scholarship Machine Learning for Fine Grained Video and Multimodal Understanding in the “other” box below along with the name of the supervisor.