Machine Learning for Fine Grained Video and Multimodal Understanding

**Type of award**  PhD Research Studentship

**Department**  Computer Science

**Scholarship Details**  Minimum £17,668 p.a. subject to eligibility and confirmation of award.

**Duration**  3.5 years

**Eligibility**  Home (UK) / EU / Overseas

**Start Date**  Between May and October 2023

**PhD Topic Background/Description**

Applications are invited for several 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/](http://dimadamen.github.io/)
Dr Michael Wray [https://mwray.github.io](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**
A tax-free stipend of £17,668 p.a. for 3.5 yrs will also cover tuition fees.

For EPSRC funding applicants must meet the eligibility and residence and residence requirements, please check the [UKRI UK Research and Innovation](https://ukri.org) website. Funding is also available for international students with no restrictions on country of residence or nationality.

**Informal enquiries**
For questions about the research topic please contact Prof Dima Damen [Dima.Damen@bristol.ac.uk](mailto:Dima.Damen@bristol.ac.uk) and Dr Michael Wray [Michael.Wray@bristol.ac.uk](mailto:Michael.Wray@bristol.ac.uk)

For questions about eligibility and the application process please contact SCEEM Postgraduate Research Admissions [sceem-pgradmissions@bristol.ac.uk](mailto:sceem-pgradmissions@bristol.ac.uk) For applications contact [Ms Marina Galetaki](mailto:mg15955@bristol.ac.uk)

**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](mailto: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](https://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 in the “other” box below along with the name of the supervisor.