PhD studentship (Full-time)

Institution	Xi'an Jiaotong-Liverpool University, China
School	School of AI and Advanced Computing
Supervisors	Principal supervisor: Dr…Yuxuan Zhao… (XJTLU) Co-supervisor: Professor…Ka Lok Man…...(XJTLU) Co-supervisor: Dr…Guangliang Cheng…...(UoL)
Application Deadline	Open until the position is filled
Funding Availability	Funded PhD project (world-wide students)
Project Title	Prompt Learning for Video Anomaly Detection
Contact	Please email Yuxuan.zhao02@xjtlu.edu.cn (XJTLU principal supervisor's email address) with a subject line of the PhD project title. The principal supervisor's profile is linked here: https://scholar.xjtlu.edu.cn/en/persons/YuxuanZhao02

Requirements:

The candidate should have a first class or upper second class honours degree, or a master's degree (or equivalent qualification), in AI; Computer Science; Data Science；

Evidence of good spoken and written English is essential. The candidate should have an IELTS score of 6.5 or above, if the first language is not English. This position is open to all qualified candidates irrespective of nationality.

Degree:

The student will be awarded a PhD degree from the University of Liverpool (UK) upon successful completion of the program.

Funding:

The PhD studentship is available for three years subject to satisfactory progress by the student. The award covers 50% tuition fee reduction for three years (RMB 148,500 total value). It also provides up to RMB 16,500 to allow participation at international conferences during the period of the award. The scholarship holder is expected to carry out the major part of his or her research at XJTLU in Suzhou, China. However, he or she is eligible for a research study visit to the University of Liverpool up to six months, if this is required by the project.

Project Description:

Video Anomaly Detection (VAD) is a critical task in video surveillance and auditing, aiming to automatically identify abnormal events within video streams. However, many video platforms still rely on manual review, which cannot guarantee that videos will be launched on time. Though some monitoring systems achieve the automatically detection, only simplistic models with low performance are implemented due to computational constraints.

This research project aims to provide an innovative prediction-based approach to VAD. It seeks to revolutionize VAD by mitigating the challenges posed by data imbalance and improves the detection performance of the model. We plan to develop a generative model specifically designed for VAD, using modified Vision Transformer for feature extraction and Diffusion structure for frame prediction. By comparing predicted frames with actual frames, we identify significant discrepancies as indicators of anomaly events.

For more information about doctoral scholarship and PhD programme at Xi'an Jiaotong-Liverpool University (XJTLU), please visit

https://www.xjtlu.edu.cn/en/admissions/global/entry-requirements/

https://www.xjtlu.edu.cn/en/admissions/global/fees-and-scholarship

How to Apply:

Interested applicants are advised to email yuxuan.zhao02@xjtlu.edu.cn (XJTLU principal supervisor's email address) the following documents for initial review and assessment (please put the project title in the subject line).

- CV
- Two formal reference letters
- Personal statement outlining your interest in the position
- Certificates of English language qualifications (IELTS or equivalent)
- Full academic transcripts in both Chinese and English (for international students, only the English version is required)
- Verified certificates of education qualifications in both Chinese and English (for international students, only the English version is required)
- PDF copy of Master Degree dissertation (or an equivalent writing sample) and examiners reports available