

PhD studentship (Full-time)

Institution	Xi'an Jiaotong-Liverpool University, China
School	School of Advanced Technology
Supervisors	Principal supervisor: Dr...Dongyao Jia... (XJTLU) Co-supervisor: Dr...Along Jin.....(XJTLU) Co-supervisor: Dr...Meng Fang.....(UoL) Co-supervisor: Dr...Haitao He(Loughborough University)
Application Deadline	Open until the position is filled
Funding Availability	Funded PhD project (world-wide students)
Project Title	...Research on Intelligent Scene Generation and Simulation Verification for Autonomous Driving.
Contact	Please email...dongyao.jia@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/DongyaoJia

Requirements:

A Master's degree with Merit and a Bachelor's degree with first-class or upper second-class honors are required for PhD admissions. Exceptional candidates holding only a Bachelor's degree may be considered on an individual basis in certain disciplines.

Evidence of good spoken and written English is essential. The candidate should have an IELTS (or equivalent) 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 tuition fees for three years (currently equivalent to RMB 99,000 per annum). It also provides up to RMB 16,500 to allow participation at international conferences during the period of the award. RA/TA subsidy will be offered upon the working performance. The scholarship holders are expected to conduct the majority of their research at XJTLU in Suzhou,

China. However, they may apply for a short-term research visit to the University of Liverpool if the project requires it.

Project Description:

Autonomous driving systems require comprehensive testing across diverse and complex traffic environments; however, existing scenario generation approaches often suffer from limited realism, insufficient diversity, and poor generalization across different regions. This PhD project aims to investigate intelligent scenario generation and generalization methods by leveraging foundation models, generative AI, world models, and digital twin technologies. The research will learn the spatiotemporal evolution patterns of complex traffic environments from real-world traffic data to automatically generate testing scenarios with high realism, diversity, and criticality. Furthermore, it will explore knowledge transfer mechanisms across different cities, road networks, and traffic ecosystems, enabling cross-domain scenario adaptation and reuse. The ultimate goal is to establish a generalizable autonomous driving testing framework that supports efficient safety validation, performance evaluation, and continuous development of autonomous driving systems.

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...Dongyao.jia@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