PhD studentship   (Full-time)

Institution	Xi'an Jiaotong-Liverpool University, China
Department	Department of Computer Science and Software Engineering
Supervisors	Principle supervisor: Dr. Xi Yang (XJTLU, Department of Computer Science and Software Engineering) Co-supervisor: Professor Kaizhu Huang (XJTLU, Department of Electrical and Electronic Engineering) Co-supervisor: Dr. Qiufeng Wang (XJTLU, Department of Electrical and Electronic Engineering) Co-supervisor: Professor Yi Huang (UoL, Department of Electrical Engineering and Electronics)
Application Deadline	Open until the position is filled
Funding Availability	Funded PhD project (world-wide students)
Project Title	Investigation of Deep Generative Model Design via Bayesian Nonparametric Approaches
Contact	Please email xi.yang@xjtlu.edu.cn with a subject line of the PhD project title

Requirements:

The candidate should have a first class or upper second class honours degree, or a master's degree (or equivalent qualification), in Computer science / Mathematics / Electrical & Electronic Engineering. 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 tuition fees for three years (currently equivalent to RMB 80,000 per annum) and provides a monthly stipend of 5,000 RMB as a contribution to living expenses. It also provides up to RMB 16,500 to allow participation at international conferences during the period of the award. It is a condition of the award that holders of XJTLU PhD scholarships carry out 300-500 hours of teaching assistance work per year. 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 of up to three months, if this is required by the project.

Project Description:
Bayesian nonparametric methods are infinite distributions of a stochastic process which can learn good representations. They can capture the richer statistical structure of the data and able to automatically determine an optimal number of latent dimensionality. Recent efforts on deep generative models made fruitful progress in clustering. However, in most cases, their performance depends highly on the results of pretraining. Also, they tend to ignore the prior information leading to a less strict inference and consequently limiting the performance. The objective of this project is to propose an end-to-end Bayesian nonparametric generalization of the deep generative framework. Aiming at promoting the low-dimensional representations and clustering simultaneously without pretraining, while deciding the neural cell in embedding space automatically. Importantly, a strict inference will be proposed using weights of stochastic process in a variational way, which enables a random assignment draw.

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

http://www.xjtlu.edu.cn/en/study-with-us/admissions/entry-requirements

http://www.xjtlu.edu.cn/en/admissions/phd/feesscholarships.html

How to Apply:
Interested applicants are advised to email xi.yang@xjtlu.edu.cn the following documents for initial review and assessment (please put the project title in the subject line).
- CV
- Two reference letters with company/university letterhead
- Personal statement outlining your interest in the position
- Proof of English language proficiency (an IELTS score of 6.5 or above)
- Verified school 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

Informal enquiries may be addressed to Dr. Xi Yang (xi.yang@xjtlu.edu.cn), whose personal profile is linked below,
https://www.xjtlu.edu.cn/en/departments/academic-departments/computer-science-and-software-engineering/staff/xi-yang