



**TMLR Young Scientist SEMINAR** 

# **2023 SERIES**

### **Trustworthy Machine Learning and Reasoning Group**



# Mr. Junchi Yu

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Date: 17 March 2023 (Friday)
Time: 10:00 – 11:00 (HKT)
Zoom: https://meeting.tencent.com/dm/EovIMA5Q7AUk

## **Subgraph-based Trustworthy Graph Learning**



### ABSTRACT

Deep graph learning has become increasingly crucial as graphs are ubiquitous in society and nature. However, current graph learning frameworks suffer from 1. untransparent decision process, 2. less robustness to inherent noise and distribution shifts. This leads to concerns about the reliability of deep graph learning methods in open-world senarios. This talk introduces the subgraph-based approaches to building trustworthy graph learning (TwGL) frameworks, which endow the graph neural networks with intrinsic interpretation and generalization ability. We further introduce the applications of these methods on GNN4Sciences, such as molecule generation.



Junchi Yu is a Ph.D. candidate at the Institute of Automation, Chinese Academy of Sciences (CASIA), advised by Prof. Ran He. He is a visiting student at the Department of Computer Science, Yale University, advised by Prof. Rex Ying. He received a B.E. from the School of Electrical Engineering, Wuhan University. His main research interests include explainable and generalizable graph learning with applications to molecule generation. He has published several papers on ICLR, CVPR, IJCAI, IEEE T-PAMI, and Pattern Recognition. He co-organizes the KDD tutorial on Trustworthy Graph Learning and is a reviewer for ICML, NeurIPS, CVPR, etc.

### ENQUIRY

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