RESEARCH SEMINAR

Towards Trustworthy Recommender Systems: Models, Vulnerabilities and Robustness

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Date : 12 July 2023 (Wed)
Time : 11:00 am - 12:00 pm
Venue : HJ302

Abstract

As one of the most prominent applications of AI, recommender systems have been recognized for their capabilities to provide users with personalized services in many intelligent business services, such as E-commerce (e.g., Amazon and Taobao) and Social Media sites (e.g., Facebook and Twitter). Despite their widespread use and success, recent studies indicate that recommender system can expose their untrustworthy aspects to humans. For example, recommender systems are highly vulnerable to adversarial attacks, thereby fooling the prediction of recommender systems to promote or demote items. These vulnerabilities have the potential to cause serious social problems and economic harm, particularly in safety-critical sectors like finance and healthcare. In this seminar, I will discuss the recent progress of trustworthy recommender systems from models, vulnerabilities, and robustness aspects.

About the Speaker

Dr Wenqi Fan is currently a Research Assistant Professor of the Department of Computing, The Hong Kong Polytechnic University. Before joining the Department, he worked as a Postdoctoral Fellow at PolyU. He received his PhD degree in computer science from the City University of Hong Kong in 2020. From 2018 to 2021, he was a research scholar at Michigan State University. He was recognized as the AI 2000 Most Influential Scholar Award Honorable Mention in both 2022 and 2023. His research interests include recommender systems, trustworthy AI, social computing, and graph neural networks. His research has been supported by multiple government research fund agencies, including the Hong Kong Research Grants Council (RGC-GRF), the National Natural Science Foundation of China (NSFC), the Hong Kong Innovation and Technology Commission (ITF), etc. More information about him can be found at https://wenqifan03.github.io.

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