THE HONG KONG POLYTECHNIC UNIVERSITY
香港理工大學

45TH Department of Computing 電子計算學系

Research Seminar

Learning from Attributed Networks: Embedding, Theory & Applications

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Date : 29 October 2019 (Tuesday)
Time : 2:30 p.m. - 3:30 p.m.
Venue : Room PQ703, 7/F, PQ Core, Mong Man Wai Building,
　　　　The Hong Kong Polytechnic University

► Abstract

Attributed networks, a unique data structure that simultaneously assesses node-to-node dependencies and node individual properties/content, are pervasive in real-world systems. Networks are widely adopted to represent the relations between objects in many disciplines. As producing and storing data are becoming easier and cheaper, in various practical scenarios, nodes are often associated with a rich set of data describing the characteristics of each node, aka node attributes. Such systems are called attributed networks. Examples include social networks with user-generated content and drug-drug interaction networks with drug descriptions. Node attributes provide rich and highly related auxiliary information apart from the network for characterizing the node properties. Jointly modeling the topological structure and node attributes could benefit many high-impact applications such as recommendation and suspicious financial transaction detection. In this talk, I will introduce how we gain scientific insights into attributed networks, and develop effective and scalable learning algorithms for attributed networks, to enable the meaningful information and actionable patterns are easily accessible to data scientists, domain experts, and data consumers.

► About the Speaker

Xiao Huang is a fifth-year Ph.D. student in the Department of Computer Science & Engineering at Texas A&M University. He received M.S. in Electrical Engineering from Illinois Institute of Technology in 2015, and B.S. in Engineering from Shanghai Jiao Tong University in 2012. He is now working at the DATA Lab, supervised by Dr. Xia "Ben" Hu. His research interests lie in network analysis, attributed network embedding & applications, social computing, and related fields. His work has been accepted by several prestigious conferences and journals including WSDM, KDD, AAAI, SDM, IJCAI, ICDM, and TKDD, with 380 citation counts. He serves as a PC member of EASM 2018, KDD 2019, CIKM 2019. He is a session chair of the SDM 2017, and received Doctoral Forum Best Poster Runner-up Award in SDM 2017 and 2019 INFORMS QSR Best Student Paper Finalist. He delivered a tutorial about learning from networks in KDD 2019.

ALL are welcome!

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