Department of Mathematics and Computer Science

Wednesday, February 13, 2019, 4:10 pm

SPECIAL COLLOQUIUM TALK

Speaker: Yi Li–University of Texas, Dallas

Old Main 2210

Social Network Analysis - Algorithmic Foundation and Practical Uses

Abstract:

In the past decade, social networks have gained popularity at a rapid pace and become an integral part of our daily lives. Online social network sites such as Facebook, Twitter, Instagram, etc. help people not only stay in touch with family and friends, but also keep abreast of breaking news and emerging contents. These online social network sites have become significant platforms for people to generate, search, and share information and ideas simultaneously with any number of peers. Since online social networks are generally open to everyone, they enable not only news organizations and government agencies to post news and events, but also individuals to post from their own perspectives. In this way, users can access more comprehensive information which includes not only positive contents such as innovations, novel ideas we hope to widely spread, but also negative contents such as misinformation and malicious rumors we want to control and limit. This talk will present background on social network analysis and discuss a misinformation spread problem from a marginal decrement perspective. Since the objective function is not sub-modular, a basic greedy algorithm could not provide a performance guarantee. To tackle this problem, an effective approach with a data-dependent approximation factor is studied. The outcomes of my research show that the proposed method effectively blocking the misinformation on social network and outperforming other edge selection strategies.

SNACKS IN FACULTY LOUNGE AT 3:30 PM.
EVERYONE WELCOME (EVEN IF YOU ARE UNABLE TO ATTEND THE TALK)
MS. LI IS A CANDIDATE FOR OUR COMPUTER SCIENCE POSITION