

Invited Talk

Big Network Analysis: Algorithms and Applications

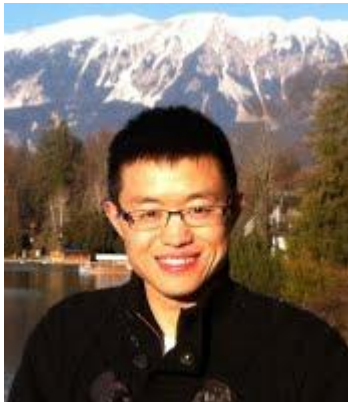
Prof. Jie Tang

Department of Computer Science and Technology at Tsinghua University

Abstract

Online social networks connect our physical daily life and the virtual Web space. The user generated data is becoming big, heterogeneous, and highly connected. In this talk, I will first present our recently developed methodologies and algorithms for connecting multiple heterogeneous networks (COSNET) and top-k similarity search (Panther). Both algorithms have been deployed to an online academic search and mining system AMiner, which has collected a large scholar dataset, with more than 130,000,000 researcher profiles and 100,000,000 papers from multiple publication databases. With COSNET, we connect AMiner with several professional social networks, such as LinkedIn and VideoLectures, which significantly enriches the scholar metadata. Panther is used to find similar authors in AMiner and can return top-k similar vertices 300× faster than the state-of-the-art methods..

Biographical Sketch



Jie Tang is an associate professor with the Department of Computer Science and Technology at Tsinghua University, and was also visiting scholar at Cornell University. His interests include social network analysis, data mining, and machine learning. He has published more than 200 journal/conference papers and holds 20 patents. His papers have been cited by more than 6,000 times (Google Scholar). He served as PC Co-Chair of CIKM'16, WSDM'15, ASONAM'15, SocInfo'12, KDD-CUP/Poster/Workshop/Local/Publication Co-Chair of KDD'11-15, and Associate Editor-in-Chief of ACM TKDD, Editors of IEEE TKDE/TBD and ACM TIST. He leads the project AMiner.org for academic social network analysis and mining, which has attracted more than 8 million independent IP accesses from 220 countries/regions in the world. He was honored with the Newton Advanced Scholarship Award, CCF Young Scientist Award, and NSFC Excellent Young Scholar.