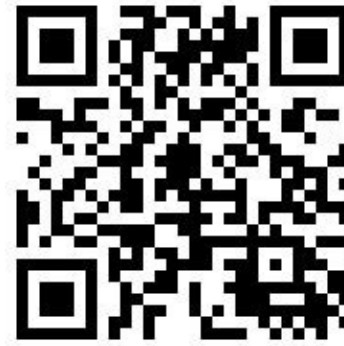


Multi-Modal Relational Knowledge Representation Learning

Date: 12 March 2021 (Friday)

Time: 10am - 11am

Seminar link: <https://cityu.zoom.us/j/99317812009>



ABSTRACT

Nowadays, people are deeply involved in various online web services such as social media (e.g., Facebook), online shopping (e.g., Amazon), smart city applications (e.g., location-based online services and intelligent transportation systems), etc. Those complex systems are usually modeled as multi-modal relational structures associated with heterogeneous data sources. For example, accurate modeling of spatial-temporal data (e.g., crime, abnormal events and traffic flow) is very challenging as it is affected by many complex factors from different views: (i) temporal dynamic context; (ii) complex spatial dependency; (iii) latent semantic relations. In addition, user's behavioral patterns are often exhibited with multi-typed (e.g., browse, add-to-cart, purchase) and multi-resolution (e.g., daily, weekly and seasonal) nature. Thus, developing intelligent solutions to automatically filter information for individuals and provide personalized services to them is important. In addition, the abundant heterogeneous information in those systems requires both a domain understanding and large exploratory search space when doing feature engineering activities of customized machine learning models for different purposes. Therefore, developing intelligent solutions to generalize the feature engineering activity through automating the discovery of heterogeneous relational knowledge for various data mining tasks is crucial.



Dr Chao HUANG GUEST SPEAKER'S PROFILE

Dr Chao Huang is a senior research scientist at the AI Lab of JD Research America in Silicon Valley. Before that, I obtained Ph.D degree from the Computing Science and Engineering Department under the supervision of Prof. Nitesh V. Chawla, at University of Notre Dame in United States. My current research interests mainly focus on data mining, deep learning and multi-modal knowledge representation with their applications to spatial-temporal data mining, recommender systems and computational behavior modeling. My research work aims to better understand and analyze actual phenomena from various data. I have published over 40 research papers in refereed venues pm the research fields of data mining (KDD, ICDE, WSDM, ICDM), information retrieval (WWW, SIGIR, CIKM), artificial intelligence (AAAI, IJCAI), human-cyber-physical systems (Infocom, IPSN). My first-authored paper has been awarded as Best Paper Candidate in WWW'19. I have been awarded as ACM WSDM'20 conference outstanding PC. Furthermore, I have served as the PC member for top conferences including ICLR, KDD, WWW, SIGIR, AAAI, IJCAI, WSDM, CIKM, ICDM etc., and the regular reviewer for journals including TKDE, TKDD, TOIS, TNNLS, TOC, TIST etc. Additionally, his developed novel machine learning frameworks have been i) successfully deployed on various large-scale AI and Big Data-driven computational platforms in practical scenarios; ii) covered by several media press.

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All are welcome