DEPARTMENT OF STATISTICS AND ACTUARIAL SCIENCE
THE UNIVERSITY OF HONG KONG

Departmental Seminar

Dr. Kun KUANG

Department of Computer Science and Technology
Zhejiang University
China

will give a talk

entitled

CAUSAL INFERENCE AND STABLE LEARNING

Abstract

Machine learning methods have demonstrated great success in many fields, but most of them are lack of interpretability and stability. Causal inference is a powerful modeling tool for explanatory analysis, which might enable current machine learning to make explainable and stable prediction. In this talk, we will show some new challenges of causal inference in the wild big data scenarios, including (1) high dimensional and noisy variables, and (2) unknown model structure of interactions among variables. To address these challenges, we proposed Data-Driven Variables Decomposition (D^2VD) and Differentiated Confounder Balancing (DCB) algorithms. Moreover, by marrying causal inference with machine learning, we proposed a causal regularizer to recover the causations between predictors and response variable, and a stable learning algorithm for stable prediction across unknown testing data.

on

Monday, August 12, 2019

(Refreshments will be served from 2:15 p.m. outside Room 301 Run Run Shaw Building)

2:30 p.m. – 3:30 p.m.

at

Room 301, Run Run Shaw Building

Visitors Please Note that the University has limited parking space. If you are driving please call the Department at 3917 2466 for parking arrangement.

All interested are welcome