TRANSFER LEARNING AND UNDERSTANDING TARGET DOMAIN
NON-TENURE TRACK FACULTY CANDIDATE

Tuesday, March 8th, 2016
10 a.m.
4002 ETB

Abstract:
In many data mining tasks, there are abundant source domains available, which are related to, but not exactly the same as
the target domain. When the source of collecting data for target domain of interest is limited and the available data sample
is scarce, transfer learning can be applied to integrate the knowledge of source domain and the data of target domain in
an appropriate way. In this talk, I will discuss about how to utilize transfer learning to combine the information from source
domains and thus, better understand the target domain qualitatively and quantitatively. In many data-rich domains, the data
exist in the form of networks, such as social networks, gene networks and brain networks, which may evolve naturally over time
or change dramatically due to assignable causes. Thus, the model, which is not only capable of characterizing the natural
evolution of dynamic networks with high accuracy, but also facilitates detection of various changes is in need. I will introduce
a unified methodological framework integrating network state space model and statistical process control for evolution
modeling and change detection. In addition, research on the brain region networks, which directly relates to many brain
diseases, will be briefly discussed. At the end of the talk, I will introduce my teaching experience as well as teaching interests.

Bio:
Na Zou obtained her Ph.D. in Industrial Engineering from Arizona State University. She also received a master's degree and
statistics certificate from Arizona State University. She worked as research and teaching assistants in the ASU-Mayo Clinic
Imaging Informatics Laboratory. Her research interests include transfer learning theory and applications, network modeling and inference and brain connectivity modeling. She has several papers that have been published or accepted in top journals such as Technometrics, IIE transaction and Journal of Cerebral Blood Flow & Metabolism. She received several awards including the Irv Kaufman Award from IEEE foundation in 2015. The courses she is eager to teach include statistical quality control, reliability engineering, time series analysis, mathematical statistics, applied nonparametric statistics, data mining, regression analysis, Bayesian analysis, and applied analysis of variance.

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