

Industrial & Systems Engineering

Seminar Announcement

Graphical Models based Networked System Modeling, Monitoring and Personalized Recommendation

Danica Xiao, PhD Candidate
Industrial & Systems Engineering
University of Washington

Abstract: Graphical models are playing increasingly important roles in networked systems (e.g. social networks, brain networks, etc.) due to their great modularity in interfacing models to data, ensuring system consistency, and providing a natural framework for system improvement.

This talk will cover several applications of graphical models, including an optimal expert knowledge elicitation strategy to improve the learning of influential relationships among system variables from data, a semiparametric Markov Random Field based model that is designed to enhance anomaly detection, and a personalized longitudinal planning framework that is constrained on individual's dynamic models which can be considered as Bayesian networks.

Bio: Danica Xiao is a Ph.D. Candidate in the Department of Industrial and Systems Engineering, at the University of Washington, Seattle. Her research interests are to apply graphical models and optimization methods to guide system modeling and monitoring.

Tuesday, May 31, 2016

1:30 – 2:20 p.m.

MEB 235