



**THE CHINESE UNIVERSITY OF HONG KONG**  
Department of Information Engineering  
*Seminar*

**Mining Social Sensing Data: Representation, Modeling,  
and Applications**  
by  
**Mr. Huajie SHAO**  
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University of Illinois at Urbana Champaign (UIUC)

**Date** : 25<sup>th</sup> January, 2021 (Monday)

**Time** : 9:30am – 10:30am

**Zoom** : <https://cuhk.zoom.us/j/93253730452>

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Abstract

Social sensing has emerged as a new knowledge acquisition paradigm due to the increasing connections among humans, intelligent devices, and the physical world. It uses humans as sensors to collect information about external physical events, such as disasters, traffic, and protests. However, social sensing data is noisy, multi-modal, and unreliable. My research goal is to learn the latent variables from correlated and multi-modal social sensing data with unsupervised learning to advance various applications, including truth discovery, link prediction, and disentangled representation learning. In this talk, I will first introduce unsupervised truth discovery that extracts reliable information from the observations on social media. Then I will present a controllable deep representation learning model to expose and disentangle latent variables from the observed data. Finally, I envision my future work on social sensing.

Biography

Huajie Shao is currently a Ph.D. student of Computer Science at University of Illinois at Urbana Champaign (UIUC). His research interests lie in data mining, machine learning, and Internet of Things, with particular focus on mining social sensing data. His research work has resulted in more than 30 research papers in top-tier international conferences and journals, including ICML, WWW, VLDB, SenSys, INFOCOM, ICDCS, TOC, TPDS, and TSP. He received SenSys'20 Best Paper Award, FUSION'19 Student Paper Award, UbiComp'19 Distinguished Paper Award, and ICCPS'17 Best Paper Award. In addition, his paper about for node localization in array sensor networks published in Trans. on Signal Processing (TSP) is nominated for the best paper in the past six years in the Signal Processing Society.

**\*\* ALL ARE WELCOME \*\***