

# Promoting Pro-social Behavior through End-to-End Data Science

Wei Ai from the University of Michigan

Date/Time: 4/5/2019 at 10:00am – 11:00am

Location: Leir Conference Room, CAB 3052

**Abstract:** The recent development of data science methods, including large-scale machine learning and causal inference, has presented a game-changing opportunity for social good provision through the effort of the crowd. In this talk, I introduce an end-to-end data science pipeline to promote behavioral change for pro-social benefits. More specifically, this involves conducting causal data analysis on empirical data for actionable insights and robust prediction models, incorporating the insights and predictions in designing recommender systems for individual actions, and evaluating the effectiveness of the recommender systems in promoting behavioral changes with randomized field experiments. I will present two applications of the end-to-end pipeline, where we designed and deployed team recommender systems on an online microfinance platform ([Kiva.org](http://Kiva.org)) and a ride-sharing platform (DiDi). We evaluated the recommender systems through large-scale field experiments, which show significant increases in user participation. The recommender system has been deployed in DiDi and has impacted millions of users in practice.

**Bio:** Wei Ai is a Ph.D. candidate at the University of Michigan School of Information (UMSI). His research interest lies in data science for social good, where the advances of machine learning and data analysis algorithms translate into measurable impacts on society. He combines machine learning, causal inference, and field experiments in his research, and has rich experience in collaborating with industrial partners. He holds a B.S. in Computer Science and a B.A. in Economics from Peking University in China. His research has been published in top journals and conferences, including PNAS, ACM TOIS, WWW, and ICWSM. He won the Gary M. Olson Outstanding Ph.D. Student Award in UMSI in 2017.