YICHI ZHANG

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EDUCATION

University of Michigan, Ann Arbor (Umich) Sep 2019 - Present
Ph.D. in School of Information
Advisor: Prof. Grant Schoenebeck

Shanghai Jiao Tong University (SJTU) Aug 2015 - Jun 2019
B.S. in Electronic Science and Engineering
Advisor: Prof. Xinbing Wang and Prof. Luoyi Fu

University of California, Los Angeles (UCLA) Jul 2018 - Sep 2018
CSST (summer research program), Department of Computer Science
Advisor: Prof. Mario Gerla

EMPLOYMENT EXPERIENCES

Research Assistant, **University of Michigan** Sep 2019 - Present
Algorithm Engineer Intern, **YITUTech** Feb 2019 - May 2019

RESEARCH PROJECTS (SELECTED)

Information Elicitation From Rowdy Crowds (Accepted to WWW 21) Sep 2019 - June 2020
Umich, with *Grant Schoenebeck and Fang-Yi Yu*

We consider the adversarial attack on crowdscouring systems.

- Propose a framework for designing information elicitation mechanisms which can handle a fraction of adversarial agents who can collude and mess up the system.
- Based on the framework, use robust learning algorithms as the black box to design three mechanisms under two commonly used settings.
- Prove the truthfulness of the proposed mechanisms using probability theory and information theory as tools.

Optimal scoring rule for information elicitation on Crowdsourcing May 2020 - present
Umich, with *Grant Schoenebeck*

In practice, we consider the problem of how to design optimal payment mechanisms for crowdsourcing workers which can minimize the overall payments.

- Review and reproduce the state of art peer prediction mechanisms with theoretical guarantees.
- Novelly measure and compare the payment efficiency of difference mechanisms using agent based model with synthetic data and real-data-estimated model.
- Explore the trade off between payment efficiency and incentive robustness of different mechanisms and payment rules.

COURSES (TAKEN)

Computer Science: machine learning, reinforcement learning, approximation algorithm, randomized algorithm.
Economics: advanced game theory (mechanism design), electronic commerce, digital public goods.

AWARDS

- EIC Education Scholarship (top 5%). 2018
- Samsung Scholarship (top 3%). 2017
- Meritorious Winner in Mathematical Contest in Modeling. 2017