Faculty Candidate Seminar

Malicious Behavior Detection and Quality Control in Crowdsourcing Systems

Dr. Chenxi Qiu, Pennsylvania State University

Abstract: Crowdsourcing allows many people to complete tasks of various difficulties with minimal recruitment and administration costs. However, the lack of participant accountability may entice people to complete as many tasks as possible without fully engaging in them, jeopardizing the quality of responses. In this talk, I will first introduce a dynamic and time efficient strategy that can detect malicious behaviors from Crowdsourcing workers and select workers to ensure high accuracy of the overall task. And after that, I will introduce a dynamic contract from requester to workers to incentivize high-quality work. In contrast to many existing pricing policies, our contract design is not only adaptive to changes in workers' behavior, but also adjusts pricing policy in the presence of malicious behavior. Finally, I will briefly mention some of my future research plans.

Bio: Chenxi Qiu received his B.E. degree in Telecommunication Engineering from Xidian University, Xi'an, China, in 2009, and Ph.D. degree in Computer Engineering from Clemson University in 2015. He is now a Postdoc Scholar in the College of Information Science and Technology at Penn State University. His research interests include cybersecurity, networking, and Internet-of-Things (IoT). Currently, he has published over 20 papers on top conferences and journals, including ToN, TC, TPDS, INFOCOM, CIKM, and ICDCS.

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Time: 10:00 am

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