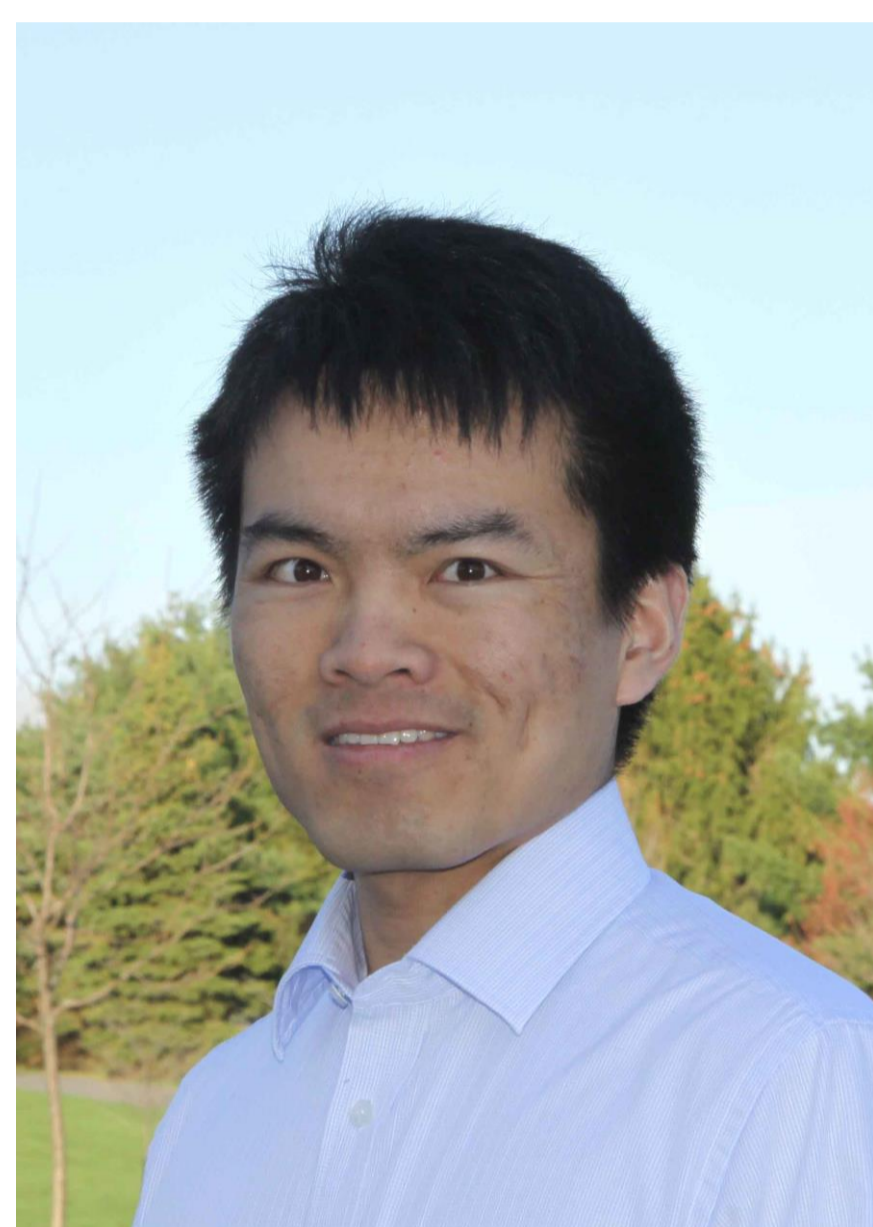




學術報告

Privacy-Preserving Mobile Sensing



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地点: 浙江大学工控新楼105室

Biography: Qinghua Li received the B.E. degrees from Xi'an Jiaotong University in 2004, the M.S. degree from Tsinghua University in 2007, and the Ph.D. degree from the Pennsylvania State University in 2013. He then joined the University of Arkansas, where he is currently an Assistant Professor in the Department of Computer Science and Computer Engineering. His research interests include security and privacy, mobile sensing, mobile systems, smart grid, and big data. He has published around 30 papers in top-tier journals and conferences including IEEE/ACM ToN, IEEE TMC, IEEE TIFS, IEEE TDSC, ACM MobiHoc, IEEE INFOCOM, ICDCS, ICNP, PerCom, CNS, etc. He is a member of the IEEE.

Abstract: Recent mobile devices such as smartphones are equipped with a rich set of embedded sensors including camera, microphone, accelerometer, GPS, etc. Mobile sensing relies on these mobile devices and their sensors to obtain useful information about people and their surroundings, and it has many applications in traffic monitoring, environmental monitoring, healthcare, etc. However, the sensing data may be exploited to obtain private information (e.g., locations and activities) about the mobile users, and such possible privacy leakage may prevent users from contributing data. In this talk, I will present a privacy-preserving incentive scheme that can stimulate users to participate in mobile sensing. I will also discuss efficient and trustworthy privacy-preserving data aggregation schemes, which allow the data collector to obtain desired aggregate statistics without knowing any individual user's data.