

Zhikun Zhang

Ph.D candidate

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Education & Experience

- 2014.09– **Ph.D candidate of Control Science and Engineering**, *College of Control Science and Engineering, Zhejiang University*.
Co-supervised by Prof. Jiming Chen (Changjiang Scholar) and Prof. Shibo He (Thousand Youth Talents Plan)
- 2010.09–2014.06 **Bachelor, Major in Control Science and Engineering**, *College of Control Science and Engineering, Shandong University*.
Supervised by Prof. Huanshui Zhang (Changjiang Scholar)

Research Interest

Crowdsensing, network optimization, game theory, mechanism design, differential privacy

My research is directed towards differential privacy and its applications. Specifically, my prior research mainly concern the application in crowdsensing systems where local differential privacy is considered. These line of works involved mathematical tools from incentive mechanisms (such as contract theory and auction theory) to optimization techniques (such as convex optimization, combinatorial optimization and Lyapunov optimization). Recently, the applications on social networks and machine learning systems are under consideration.

Publications

- [C1] **Zhikun Zhang**, Heng Zhang, Shibo He, Peng Cheng. Achieving Bilateral Utility Maximization and Location Privacy Preservation in Database-driven Cognitive Radio Networks, *Proceedings of IEEE MASS 2015*, Dallas, USA, 2015.
- [C2] Jiajun Zhang, Xiaohui Liang, Shibo He, **Zhikun Zhang**, Zhiguo Shi. Re-DPector: Real-time Health Data Releasing with w-day Differential Privacy, accepted by IEEE GLOBECOM 2017.
- [C3] **Zhikun Zhang**, Shibo He, Jiming Chen. LEPA: Incentivizing Long-term Privacy-preserving Data Aggregation in Crowdsensing, submitted to IEEE INFOCOM 2018.
- [J1] **Zhikun Zhang**, Heng Zhang, Shibo He, Peng Cheng. Bilateral Privacy-preserving Utility Maximization Protocol in Database-driven Cognitive Radio Networks, submitted to *IEEE TDSC*, under review.
- [J2] **Zhikun Zhang**, Shibo He, Junshan Zhang, Jiming Chen. REAP: An Efficient Incentive Mechanism for Reconciling Aggregation Accuracy and Individual Privacy in Crowdsensing, to be submitted.

Honors & Awards

- 2015.10 **Student Travel Grant**, IEEE MASS.
- 2014.9 **Quantification to defense the Ph.D degree directly without examination**.
- 2013-2014 **National Scholarship for Excellent Student**, Shandong University.
- 2012-2013 **Scholarship for Excellent Student**, Shandong University.

Academic Services

Reviewer for: IEEE Transactions on Vehicular Technology

IEEE Communication Letter

Peer-to-Peer Networking and Applications

ACM International Symposium on Mobile Ad Hoc Networking and Computing (Mobi-Hoc'17)

IEEE International Conference on Sensing, Communication and Networking (SECON'17)

IEEE International Conference on Communications (ICC'15 16 17)

IEEE Global Communications Conferences (GLOBECOM'15 16)

IEEE Annual Conference on Decision and Control (CDC'15 16)

Attendance: IEEE International Conference on Communications in China (ICCC'16), Chengdu, China, Jul. 27-29, 2016

Chinese Automation Congress (CAC'15), Wuhan, China, Nov. 27-29, 2015

IEEE International Conference on Mobile Ad hoc and Sensor Systems (MASS'15), Dallas, USA, Oct. 19-22, 2015

ACM International Symposium on Mobile Ad Hoc Networking and Computing (Mobi-Hoc'15), Hangzhou, China, Jun. 22-25, 2015

China Internet Security Conference (ISC'14), Beijing, China, Sep. 29-30, 2014

Skilled Computer Languages

Programming MATLAB, C, Visual C++, Python

OS Windows, Linux