

# Fengli Xu

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## Research Interests

Human Behavior Modelling, Data Science, Data Privacy.

## Education

**Tsinghua University**, Beijing, China, 2015 – 2020 (expected).

*Ph.D. Candidate* in Department of Electronic Engineering

Advisor: Prof. Yong Li

**Huazhong University of Science and Technology**, Wuhan, China, 2011 – 2015.

*B.S.* in Department of Electronic Engineering

*Outstanding Graduate of Huazhong University of Science and Technology*

## Research Experience

Microsoft Research Asia, China

*Research Intern*, with **Prof. Xing Xie** in *Social Computing Group*, 2018.10 – 2019.1.

Tencent Inc., Beijing, China

*Research Scientist Intern*, *Mobile Data Mining Team*, 2016.12 – 2017.5.

Georg-August-University of Goettingen, Germany

*Visiting Researcher*, with **Prof. Xiaoming Fu** in *Computer Networks Research Group*, 2016.6 – 2016.9.

Tsinghua University, Beijing, China

*Research Assistant*, with **Prof. Yong Li** in *FIB Lab*, 2015.08 – present.

## Honors and Awards

MSRA Fellowship	2018
Outstanding Oral Presentation Award in Tsinghua PhD Forum	2017
ACM UBICOMP Honorable Mention Award	2016
National Graduate Student Scholarship of China	2016
Outstanding Graduate of Huazhong University of Science and Technology	2015
National Undergraduate Student Scholarship of China	2014

## Publications

**Conferences:**

1. Hancheng Cao, Zhilong Chen, **Fengli Xu**, Yong Li, Tao Wang. When E-Commerce Meets Intimacy: An Empirical Study of Social Commerce Site Beidian. In *International AAAI Conference on Web and Social Media (ICWSM)*, 2020.
2. **Fengli Xu**, Jianxun Lian, Zhenyu Han, Yong Li, Yujian Xu, Xing Xie. Relation-Aware Graph Convolutional Networks for Agent-Initiated Social E-Commerce Recommendation. In *Conference on Information and Knowledge Management (CIKM)*, 2019.
3. **Fengli Xu**, Zhenyu Han, Jinhua Piao, Yong Li. "I Think You'll Like It": Modelling the Online Purchase Behavior in Social E-commerce. In *ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW)*, 2019.
4. Hancheng Cao, Zhilong Chen, **Fengli Xu**, Yong Li, Vassilis Kostakos. Revisitation in Urban Space vs. Online: A Comparison across POIs, Websites, and Smartphone Apps. In *ACM International Joint Conference on Pervasive and Ubiquitous Computing (UBICOMP)*, 2019.
5. **Fengli Xu**, Zhen Tu, Hongjia Huang, Shuhao Chang, Funing Sun, Diansheng Guo, Yong Li. No More than What I Post: Preventing Linkage Attacks on Check-in Services. In *The Web Conference (WWW)*, 2019.
6. Tong Xia, Yue Yu, **Fengli Xu**, Funing Sun, Diansheng Guo, Depeng Jin, Yong Li. Understanding Urban Dynamics via State-sharing Hidden Markov Model. In *The Web Conference (WWW)*, 2019.
7. **Fengli Xu**, Tong Xia, Hancheng Cao, Yong Li, Funing Sun, Fanchao Meng. Detecting Popular Temporal Modes in Population-scale Unlabelled Trajectory Data. In *ACM International Joint Conference on Pervasive and Ubiquitous Computing (UBICOMP)*, 2018.
8. **Fengli Xu**, Guozhen Zhang, Jiabin Huang, Yong Li, Diyi Yang, Ben Y. Zhao, Fanchao Meng. Understanding Motivations behind Inaccurate Check-ins. In *ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW)*, 2018.
9. Donghan Yu, Yong Li, **Fengli Xu**, Pengyu Zhang, Vassilis Kostakos. Smartphone App Usage Prediction Using Points of Interest. In *ACM International Joint Conference on Pervasive and Ubiquitous Computing (UBICOMP)*, 2018.
10. **Fengli Xu**, Zhen Tu, Yong Li, Pengyu Zhang, Xiaoming Fu, Depeng Jin. Trajectory Recovery From Ash: User Privacy Is NOT Preserved in Aggregated Mobility Data. In *International Conference on World Wide Web (WWW)*, 2017.
11. Zhen Tu, Kai Zhao, **Fengli Xu**, Yong Li, Li Su, Depeng Jin. Beyond k-anonymity: protect your trajectory from semantic attack. In *IEEE International Conference on Sensing, Communication, and Networking (SECON)*, 2017.
12. Jiabin Huang, **Fengli Xu**, Yujun Lin, Yong Li. On the Understanding of Interdependency of Mobile App Usage. In *IEEE International Conference on Mobile Ad Hoc and Sensor Systems (MASS)*, 2017.
13. **Fengli Xu**, Jie Feng, Pengyu Zhang, Yong Li. Context-aware Real-time Population Estimation for Metropolis. In *ACM International Joint Conference on Pervasive and Ubiquitous Computing (UBICOMP)*, 2016. (**Honorable Mention Award**)
14. Mingyang Zhang, **Fengli Xu**, Yong Li. Mobile Traffic Data Decomposition for Understanding Human Urban Activities. In *IEEE International Conference on Mobile Ad Hoc and Sensor Systems (MASS)*, 2016.
15. Huandong Wang, **Fengli Xu**, Yong Li, Pengyu Zhang, Depeng Jin. Understanding mobile traffic patterns of large scale cellular towers in urban environment. In *ACM Internet Measurement Conference (IMC)*, 2015.

16. **Fengli Xu**, Guozhen Zhang, Yuan Yuan, Diyi Yang, Yong Li. Growth Via Referral: Understanding the Invitation Acceptance in Agent-initiated Social E-commerce. In submission to *ACM Conference on Human Factors in Computing Systems (CHI)*, 2020.

## Journals:

1. **Fengli Xu**, Zhen Tu, Yong Li. Connecting the Dots: User Privacy Is NOT Preserved in ID-removed Cellular Data. *IEEE Transactions on Network and Service Management (TNSM)*, to appear in 2019. (Impact Factor = 3.286)
2. Hancheng Cao, **Fengli Xu**, Jane Sankaranarayanan, Yong Li, Hamen Samet. Habit2vec: Trajectory Semantic Embedding for Living Pattern Recognition in Population. *IEEE Transactions on Mobile Computing (TMC)*, to appear in 2019. (Impact Factor = 4.098)
3. Zhen Tu, **Fengli Xu**, Yong Li, Pengyu Zhang, Depeng Jin. A New Privacy Breach: User Trajectory Recovery From Aggregated Mobility Data. *IEEE/ACM Transactions on Networking (TON)*, 2018, 26(3):1446-1459. (Impact Factor = 3.376)
4. Jie Feng, Yong Li, **Fengli Xu**, Depeng Jin. A Bimodal Model to Estimate Dynamic Metropolitan Population by Mobile Phone Data. *Sensors*, 2018, 18(10), 3431. (Impact Factor = 2.475)
5. **Fengli Xu**, Yong Li, Huandong Wang, Pengyu Zhang, Depeng Jin. Understanding Mobile Traffic Patterns of Large Scale Cellular Towers in Urban Environment. *IEEE/ACM Transactions on Networking (TON)*, 2017, 25 (2), 1147-1161. (Impact Factor = 3.376)
6. **Fengli Xu**, Yong Li, Min Chen, Shen Chen. Mobile Cellular Big Data: Link Cyberspace and Physical World with Social Ecology. *IEEE Network*, 2016,30(3):6-12. (Impact Factor = 7.197)
7. **Fengli Xu**, Yujun Lin, Jiabin Huang, Di Wu, Hongzhi Shi, Jeungeun Song, Yong Li. Big Data Driven Mobile Traffic Understanding and Forecasting: A Time Series Approach. *IEEE Transaction on Service Computing (TSC)*, 2016, 9(5):796-805. (Impact Factor = 3.520)
8. Yong Li, **Fengli Xu**. Trace-driven analysis for location-dependent pricing in mobile cellular networks. *IEEE Network*, 2016, 30(2):40-45. (Impact Factor = 7.197)
9. **Fengli Xu**, Yong Li, Zhen Tu, Shuhao Chang, Hongjia Huang. No More than What I Post: Preventing Linkage Attacks on Check-in Services. Under major revision in *IEEE Transactions on Mobile Computing (TMC)*. (Impact Factor = 4.098)
10. **Fengli Xu**, Yong Li. Understanding Intra-City Mobility Flows Patterns: Regularity, Randomness and Context. In submission to *IEEE Transactions on Mobile Computing (TMC)*. (Impact Factor = 4.098)
11. **Fengli Xu**, Zhen Tu, Yong Li. Measuring and Quantifying the Privacy Leakage in Large-Scale Cellular Mobility Data. In submission to *IEEE Communications Magazine*. (Impact Factor = 10.356)
12. **Fengli Xu**, Yong Li, Chaoming Song. Revealing the Urban Growth Patterns by Human Mobility. In submission to *Nature Communications*. (Impact Factor = 12.353)

## Professional Activity

### Programme Committee:

AppLens Workshop (UBICOMP), 2019.

### Conference External Reviewing:

International Joint Conference on Pervasive and Ubiquitous Computing(UBICOMP), 2017, 2018, 2019.  
ACM SIGKDD Conference on Knowledge Discovery and Data Mining(SIGKDD), 2019.

International World Wide Web Conference(WWW), 2017, 2018, 2019.

International AAAI Conference on Web and Social Media(ICWSM), 2017.

IEEE International Conference on Computer Communications(INFOCOM), 2017.

ACM Internet Measurement Conference(IMC), 2016, 2017, 2018.

**Journal Reviewing:**

IEEE Transactions on Network and Service Management, 2018.

IEEE Transactions on Mobile Computing, 2017.

IEEE Communications Magazine, 2017.

IEEE Transactions on Services Computing, 2017.

**Conference Attending:**

International Joint Conference on Pervasive and Ubiquitous Computing(UBICOMP), 2016, 2018.

International World Wide Web Conference(WWW), 2017, 2019.