

# Qiang Li

## Curriculum Vitae

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### Breif Bio

Since October 2015, I have been a Assistant Professor at Beijing Jiaotong University where I drive the broader research activities in mobile computing and Internet of Things. I received a Ph.D. from Institute of Information Engineering of Chinese Academy of Science under the supervision of Limin Sun. My dissertation pioneered pattern recognition techniques for sensing group behavior that enable mobile systems to better cope with diverse user populations encountered in the real-world. More broadly, my research interests revolve around mobile computing and Internet of Things. At heart, I am an experimentalist who likes to build prototype systems based on well-founded computational models.

### Education

- 2012-2015 **Ph.D., Computer Science**, Chinese Academy of Sciences.  
Thesis: “**Crowd Behavior Sensing Based on Smartphones**”  
Advisors: Limin Sun
- 2009-2012 **Master’s Level Computer Science Courses**, Chinese Academy of Sciences.  
Coursework for professional development
- 2005–2009 **Bachelor’s degree in Security Information**, Nankai University.  
Graduated with High Honor

### Employment

- 2015-Present **Assistant Professor**, at Beijing Jiaotong University.  
Beijing, China
- 2010.6- **Intern Researcher**, at ShangHai Jiaotong University.  
2010.11 ShangHai, China

### PhD Dissertation

#### **Crowd Behavior Sensing Based on Smartphones.**

- Smartphone sensing:
  - (1)Queuing behavior detecting on smartphones;
  - (2)MicroPrivacy on Smartphones
- Smartphone communication:
  - (1)Context-Aware Handoff on Smartphones
- Smartphone computing:
  - (1)Spatial Facility Prediction;
  - (2)UserIntent: A new application on smartphones;
  - (3)Background Routines on Smartphones

## Publications

- [1] Li, Qiang, Qi Han, and Limin Sun. "Collaborative Recognition of Queuing Behavior on Mobile Phones." *IEEE Transactions on Mobile Computing (TMC)*, 15.1 (2016): 60-73.
- [2] Hongtao Wang, Qiang, Li, Qi Han, Limin Sun, "Influential Spatial Facility Prediction over Dynamic Objects", *Wireless Algorithms, Systems, and Applications (WASA)*. Springer International Publishing, 2015. 528-538.
- [3] Wei Liu, Qiang, Li, Yongle Chen, Yongping Xiong, Yubo Deng, Limin Sun. "Adaptive Heterogeneous Network Handoff of Smartphone Based on the Closed Control Loop". *International Journal of Distributed Sensor Networks (IJDSN)*.
- [4] Qiang, Li, Qi Han, Xiuzhen Cheng, Limin Sun. "QueueSense: Collaborative Recognition of Queuing on Mobile Phones", 2014 *IEEE International Conference on Sensing, Communications and Networking (SECON)*, Singapore 2014, 30 June - 3 July.
- [5] Qiang, Li, Qi Han, Limin Sun. "UserIntent: Detection of User Intent for Triggering Smartphone Sensing Applications", Poster, 2014 *IEEE International Conference on Sensing, Communications and Networking (SECON)*, Singapore 2014, 30 June - 3 July.
- [6] Wen, Hui, Qiang Li, Qi Han, Shiming Ge, and Limin Sun. "Poster: Crowdsourcing for video traffic surveillance." In *Proceedings of the 12th annual international conference on Mobile systems, applications, and services*, pp. 384-384. ACM, 2014.
- [7] Li, Qiang, Qi Han, and Limin Sun. "Context-Aware Handoff on Smartphones.", 2013 *IEEE 10th International Conference on Mobile Ad-Hoc and Sensor Systems (MASS)*, pp. 470-478. IEEE, 2013.
- [8] Li, Qiang, Weijun Qin, Liqun Li, and Limin Sun. "Smartphone heterogeneous network handoff based on the closed control loop". In *Proceedings of the 2012 IEEE/ACM Third International Conference on Cyber-Physical Systems*, p. 231. IEEE Computer Society, 2012.
- [9] Liu, Yang, Qiang Li, W Qin, L Sun, Y Liu. "GreenTech: A Case Study for Using the Web of Things in Household Energy Conservation". 2012 9th *IEEE International Conference on Ubiquitous Intelligence Computing and 9th International Conference on Autonomic Trusted Computing (UIC/ATC)*.
- [10] Li, Qiang, Weijun Qin, Bing Han, Ruicong Wang, and Limin Sun. "A case study on REST-style architecture for cyber-physical systems: Restful smart gateway." *Computer Science and Information Systems*, 8, no. 4 (2011): 1317-1329.
- [11] Qin, Weijun, Qiang Li, Limin Sun, Hongsong Zhu, and Yan Liu. "RestThing: A Restful Web Service Infrastructure for Mash-Up Physical and Web Resources." 2011 *IFIP 9th International Conference on Embedded and Ubiquitous Computing (EUC)*, , pp. 197-204. IEEE, 2011.
- [12] 李强, 秦伟俊, 刘燕, 王瑞聪, and 韩冰. "传感网中间件测试与验证平台." *计算机研究与发展* 48, no. z2 (2011).
- [13] 孙玉砚, 刘卓华, 李强, and 孙利民. "一种面向 3G 接入的物联网安全架构." *计算机研究与发展* 47, no. 2 (2010): 327-332.

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## Project

2013-2015 **National Natural Science Foundation.**

Research on Socialization Internet of Things: collecting and sensing users' mobility information

2011-2013 **State Key Development Program of Basic Research.**

Mobile computing on Internet of Things: smartphone sensing, communication and computing

2010-2011 **Multiple heterogeneous device collaboration on Internet of Things.**

design/implemented the control platform for smart home; design/implemented the seamless switching approach for heterogeneous networks

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## Computer skills

Languages Java, Python

Platforms Android, Linux

Tools Weka, Pandas, Scikit-learn