

Tianyi Wang

Senior Software Engineer, Baidu Research
wangtianyi02@baidu.com, tsinghuawty@gmail.com
<http://wangty.net>

Appointments

- Senior Software Engineer, Baidu Research, Big Data Lab *Jul., 2016 to present*
- Research Intern, Baidu Research, Big Data Lab *Apr. 2015 to Jul. 2016*
- Research Intern, IBM China Research Lab *Jul. 2011 to Nov. 2011*

Education

- **PhD** candidate in Department of Electronic Engineering, Tsinghua University *Sep., 2011 to Jul. 2016*
- Visiting scholar in UC Santa Barbara with Prof. Ben Y. Zhao and Haitao Zheng *Sep. 2013 to Aug. 2014*
- **B.E.** Student in Department of Electronic Engineering, Tsinghua University *Sep., 2007 to Jul., 2011*
- Exchange student in Hong Kong University of Science and Technology *Sep., 2009 to Dec., 2009*

Research Interests

My research interests include Measuring and modeling of large scale data, *e.g.*, Online Social Networks (OSNs), crowdsourcing platforms and web queries. Most of my works are data-driven and modeling based. The goal is to make use of the data (of all kinds), and obtain intrivial and underground knowledge from the data.

Publications

1. Unbiased Sampling in Directed Social Graph. **Tianyi Wang**, Yang Chen, Zengbin Zhang, Peng Sun, Beixing Deng, Xing Li. In Proc. of ACM SIGCOMM Computer Communication Review, 2010, 40(4):401-402.
2. Understanding Graph Sampling Algorithms for Social Network Analysis. **Tianyi Wang**, Yang Chen, Zengbin Zhang, Tianyin Xu, Long Jin, Pan Hui, Beixing Deng, Xing Li. In Proc. of Simplex 2011.
3. Albatross Sampling: Robust and Effective Hybrid Vertex Sampling for Social Graphs. Long Jin, Yang Chen, Pan Hui, Cong Ding, **Tianyi Wang**, Athanasios Vasilakos, Beixing Deng, Xing Li. In Proc. of HotPlanet 2011.
4. Understanding User Behavior in Online Social Networks: A Survey. Long Jin, Yang Chen, **Tianyi Wang**, Pan Hui, Athanasios Vasilakos. In IEEE Communications Magazine, 2013, 51(9):144-150.
5. Characterizing and Detecting Malicious Crowdsourcing. **Tianyi Wang**, Gang Wang, Xing Li, Haitao Zheng, Ben Y. Zhao. In ACM SIGCOMM Computer Communication Review, 2013, 43(4): 537-538.
6. Man vs. Machine: Practical Adversarial Detection of Malicious Crowdsourcing Workers. Gang Wang, **Tianyi Wang**, Haitao Zheng, Ben Y. Zhao. In Proc. of Usenix Security 2014.
7. Whispers in the Dark: Analysis of an Anonymous Social Network. Gang Wang, Bolun Wang, **Tianyi Wang**, Ana Nika, Haitao Zheng, Ben Y. Zhao. In Proc. of IMC 2014.
8. Crowds on Wall Street: Extracting Value from Collaborative Investing Platforms. Gang Wang, **Tianyi Wang**, Bolun Wang, Divya Sambasivan, Zengbin Zhang, Haitao Zheng, Ben Y. Zhao. In Proc. of CSCW 2015.
9. The Power of Comments: Fostering Social Interactions in Microblog Networks. **Tianyi Wang**, Yang Chen, Yi Wang, Bolun Wang, Gang Wang, Xing Li, Haitao Zheng, Ben Y. Zhao. In Frontiers of Computer Science, 2016, 10(5): 889-907.
10. Defending against Sybil Devices in Crowdsourced Mapping Services. Gang Wang, Bolun Wang, **Tianyi Wang**, Ana Nika, Haitao Zheng, Ben Y. Zhao. In Proc. of MobiSys 2016.
11. Demand Driven Store Placement via Multiple Spatial-temporal Data. Mengwen Xu, **Tianyi Wang**, Zhengwei Wu, Jingbo Zhou, Jian Li, Haishan Wu. To appear in Sig Spatial 2016.
12. Value and Misinformation in Collaborative Investing Platforms. **Tianyi Wang**, Gang Wang, Bolun Wang, Divya Sambasivan, Zhang Zengbin, Xing Li, Haitao Zheng, Ben Y. Zhao. To appear in ACM trans. on the Web (TWEB).

Research Projects

- **Mining large scale temporal-spatial data (@Baidu)**
with *Dr. Haishan Wu* *Apr., 2015 to present*
 - Site optimization for offline stores, *e.g.*, Starbucks
 - Audience extension and customer recommendations
- **Wisdom of crowdsourced stock platform SeekingAlpha**
with *Prof. Ben Zhao and Haitao Zheng* *Sep., 2013 to Jan. 2016*
 - sentiment analysis on Seeking Alpha articles and StockTwits messages
 - practical investment strategy based on crowdsourced articles
 - understanding and detecting stock manipulation
- **Measuring anonymous OSN Whisper**
with *Prof. Ben Zhao and Haitao Zheng* *Feb., 2014 to May, 2014*
 - topic modeling for abusive contents in Whisper
 - modeling and prediction of user engagement and stickness
- **Detecting malicious crowdsourced workers**
with *Prof. Ben Zhao and Haitao Zheng* *Apr., 2013 to Feb., 2014*
 - modeling malicious crowdsourced worker behavior
 - detection with supervised machine learning methods
 - study the robustness in adversary scenarios
- **Measurement of Sina Weibo**
with *Prof. Ben Zhao and Haitao Zheng* *Jul., 2012 to Aug., 2013*
 - measure the unique function of *comments*
 - reveal how function impacts the user behavior
- **Graph sampling in online social networks**
with *Dr. Yang Chen* *Mar., 2010 to Jul., 2011*
 - propose algorithms of unbiased sampling in directed graphs
 - evaluation beyond degree distribution

Honors and Awards

- National scholarship *Sep., 2008 and Dec., 2012*
- Excellent Graduate student in Tsinghua University *Jul., 2011*
- First place of the undergraduate division in ACM Student Research Competition *Sep., 2010*
- First place in the college entrance exam of Jiangsu Province *Jun., 2007*