

# Tianyi Wang

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## Education

- 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*
- PhD student in Department of Electronic Engineering, Tsinghua University *Jul., 2011 to present*
- Visiting student in UC Santa Barbara with Prof. Ben Y. Zhao and Haitao Zheng *Sep. 2013 to Aug. 2014*

## Research Interests

My research interests include Measuring and modeling of Online Social Networks (OSNs), crowdsourcing platforms, and the corresponding security and privacy issues. 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 Proc. of 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.

## Research Projects

- **Wisdom of crowdsourced stock platform SeekingAlpha**  
with *Prof. Ben Zhao* and *Haitao Zheng* *Sep., 2013 to present*
  - 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

- **GNU radio platform**

with *Prof. Qian Zhang*

*Sep., 2009 to Dec., 2009*

- write a program for calculating the SNR of the radio
- compare the work of GNU radio in different conditions

## Industry Experiences

- IBM China Research Lab(CRL), on big data and NoSQL database

*Aug. to Nov., 2011*

## Honors and Awards

- National scholarship
- Excellent Graduate student in Tsinghua University
- First place of the undergraduate division in ACM Student Research Competition
- First place in the college entrance exam of Jiangsu Province

*Sep., 2008 and Dec., 2012*

*Jul., 2011*

*Sep., 2010*

*Jun., 2007*