

Curriculum Vitae

Shiyu Ji

BASIC INFORMATION

- Graduate Student, Department of Computer Science, University of California, Santa Barbara.
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RESEARCH INTERESTS

My research interests include game theories (i.e., incentive mechanisms) in the context of crowdsourcing and wireless networks. I am also interested in information security.

EDUCATION

- **PhD Student** (2015-), Computer Science, University of California, Santa Barbara.
- **M.S.** (2012-2015), Computer Science, Oklahoma State University. GPA: 4.0/4.0.
Advisor: Dr. Tingting Chen.
- **B.E.** (2008-2012), Information Security, Harbin Institute of Technology. GPA: 86.6/100.

PUBLICATIONS

- *Conferences*

1. Shiyu Ji, Tingting Chen, Fan Wu. “Crowdsourcing with Trembles: Incentive Mechanisms for Mobile Phones with Uncertain Sensing Time”, accepted by *IEEE ICC - Mobile and Wireless Networking Symposium (ICC)*, London, June, 2015.
2. Shiyu Ji, Tingting Chen, Sheng Zhong, Subhash Kak. “DAWN: Defending Against Wormhole Attacks in Wireless Network Coding Systems”, accepted by *IEEE International Conference on Computer Communications (INFOCOM)*, Toronto, Canada, April, 2014.
3. Shiyu Ji, Tingting Chen. “Crowdsensing Incentive Mechanisms for Mobile Systems with Finite Precisions”, accepted by *IEEE ICC - Mobile and Wireless Networking Symposium (ICC)*, Sydney, June, 2014.

- *Journals*

1. Shiyu Ji, Tingting Chen, “Incentive Mechanisms for Discretized Mobile Crowdsensing”, accepted by *IEEE Transactions on Wireless Communications (TWC)*, 2015.
2. Shiyu Ji, Tingting Chen, Sheng Zhong. “Wormhole Attack Detection Algorithms in Wireless Network Coding Systems”, *IEEE Transactions on Mobile Computing (TMC)*, Vol. 14, Issue 3, 2015.
3. Shiyu Ji, Xiaojun Tong, Miao Zhang. “Image encryption schemes for joint photographic experts group and graphics interchange format formats based on three-dimensional baker with compound chaotic sequence generator”. *Journal of Electronic Imaging*, Vol. 22, No. 1, 2013.

EXPERIENCE

- **Teaching Assistant** (09/2015-) at UCSB.

Jobs:

- Leading discussions and grading homeworks for CS 40: Foundations of Computer Science, Fall 2015, which covers basics of discrete math, e.g., sets, functions, logics, proofs, etc.
- Leading labs for CS 8: Introduction to Computer Science, Winter 2016, which introduces Python programming.
- Leading sections for CS 177: Computer Security, Spring 2016.

- **Research Assistant** (06/2013-08/2013) at Oklahoma State University.

Advisor: Dr. Tingting Chen.

Research Topics: Expected Transmission Count (ETX) as countermeasure against wormhole attacks; Sensing uncertainty and discretized sensing in crowdsourcing/crowdsensing; Collusion resistance in crowdsourcing.

- **Teaching Assistant** (08/2012-Present) at Oklahoma State University (OSU). Jobs:

- I graded homeworks and exams for the courses *Data Structures and Algorithms*, *Formal Languages*, *Numerical Analysis*, *Wireless Networks* and *Security Algorithms* for undergraduate students in OSU.
- I also prepared the introductory slides of ns3 and crypto++ at the graduate level course in Fall, 2013 and Spring 2014, respectively.
- I gave 7 lectures on Heapsort, Hash tables and Binary Search Trees to the undergraduate students in Spring, 2015.

- **Research Assistant** (11/2011-05/2012) at Harbin Institute of Technology.

Advisor: Prof. Xiaojun Tong.

Research topics: Chaotic image encryption on various graphic formats, e.g., JPEG, GIF, etc.

HONORS AND AWARDS

- Fisher Scholarship, Computer Science Department, Oklahoma State University, 2014.
- Honorable Mention, Mathematical Contest in Modeling (MCM) (top 25%), 2011.
- First Class Scholarships of Harbin Institute of Technology (top 5%), 2008-2011.
- Excellent Graduate of Harbin Institute of Technology (top 10%), 2012.
- Excellent Student of Harbin Institute of Technology (top 5%), 2011.
- First Prize, Chinese High School Physics Competition (top 5%), 2007.