

# Shiyu Ji

PhD Student  
Department of Computer Science  
University of California, Santa Barbara

Email ✉: shiyu@cs.ucsb.edu

## EDUCATION

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

## PROJECTS

- A new frequent itemset mining approximation algorithm estimates the frequencies with much fewer samples than the state-of-art works.
- Mandelbrot Julia Fractals Project uses Python 3 and cImage to generate fractal images with various styles. The code is available on Github so that everyone can try it.
- A file system simulator manages the file storage on a disk for large scaled I/O operations.

## 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)*, 15(1), 2015.
  2. Shiyu Ji, Tingting Chen, Sheng Zhong. “Wormhole Attack Detection Algorithms in Wireless Network Coding Systems”, *IEEE Transactions on Mobile Computing (TMC)*, 14(3), 2015.

## SKILLS

Python, C, L<sup>A</sup>T<sub>E</sub>X, Linux.

## HONORS AND AWARDS

- Computer Science Fellowship, UCSB, 2015.
- Fisher Scholarship, Computer Science Department, Oklahoma State University, 2014.
- Honorable Mention, Mathematical Contest in Modeling (MCM), 2011.