# Qin Liu

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| **RESEARCH INTERESTS** | I am broadly interested in computer systems, from single machine systems to data centers. Recently, I mainly work on graph computation systems and graph mining. I also work a bit on data mining, and take an interest in machine learning. |

**EDUCATION**

The Chinese University of Hong Kong                                    2012 - Present
- Ph.D Candidate, Department of Computer Science & Engineering.
- Advised by Prof. John C.S. Lui.

Shanghai Jiao Tong University                                          2008 - 2012
- Bachelor of Science, ACM Class, Department of Computer Science & Engineering.

**RESEARCH EXPERIENCE**

Sep 2012 - Present
**Research Assistant** in Industry Collaboration at Noah's Ark Lab, Huawei
- Stream processing (advised by Prof. John C.S. Lui and Prof. Patrick P. C. Lee).
  Developed the prototype of the StreamSMART platform for Huawei.
- Graph processing (advised by Prof. John C.S. Lui).
  Developed a single-machine disk-based graph processing system called VENUS which has been deployed inside Huawei.

Feb 2012 - June 2012
**Research Assistant** at Center for Brain-like Computing and Machine Intelligence
- Developed a sketch-based image search system called Painting-Finder (advised by Prof. Liqing Zhang).

July 2011 - Feb 2012
**Research Intern** at Tencent
- Worked on malware analysis.

July 2010 - Jun 2011
**Research Assistant** at Center for Brain-like Computing and Machine Intelligence
- Worked on brain computer interface and EEG data processing (advised by Prof. Liqing Zhang).

**PUBLICATIONS**

Conference:
- **VENUS: Vertex-Centric Streamlined Graph Computation on a Single PC**
  Jiefeng Cheng, **Qin Liu**, Zhenguo Li, Wei Fan, John C.S. Lui, Cheng He.
  *ICDE 2015*
- **SAND: A Fault-Tolerant Streaming Architecture for Network Traffic Analytics**
  **Qin Liu**, John C.S. Lui, Cheng He, Lujia Pan, Wei Fan, Yunlong Shi.
  *DSN 2014 (practical experience report)*
- **Combining Factorization Model and Additive Forest for Collaborative Followee Recommendation**
  Tianqi Chen, Linpeng Tang, **Qin Liu**, Diyi Yang, Saining Xie, Xuezhi Cao, Chunyang Wu, Enpeng Yao, Zhengyang Liu, Zhansheng Jiang, Cheng Chen, Weihao Kong, Yong Yu.
  *KDD-Cup Workshop 2012 (Our method won the 1st place in KDD-Cup'12 track 1)*

Journal:

- **Walking in the Cloud: Parallel SimRank at Scale**
  Zhenguo Li, Yixiang Fang, **Qin Liu**, Jiefeng Cheng, Reynold Cheng, John C.S. Lui.
  *Proceedings of the VLDB Endowment, 9(1), 2015 (to appear)*

- **SAND: A fault-tolerant streaming architecture for network traffic analytics**
  **Qin Liu**, John C.S. Lui, Cheng He, Lujia Pan, Wei Fan, Yunlong Shi.
  *Journal of Systems and Software, 2015*
  (An earlier version appeared in DSN 2014)

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| AWARDS & HONORS | **1st place** in KDD Cup 2012, Track 1 (Team `ACMClass@SJTU`) | 2012 |
| | Academic Excellence Scholarship (2nd-prize), SJTU | 2011 |
| | **Silver Medal** (38th place) in *National Olympiad in Informatics (NOI)*, China | 2007 |

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| TEACHING EXPERIENCE | At CUHK: | |
| | Teaching Assistant of *Introduction to Operating Systems* | Fall 2014/2012 |
| | Teaching Assistant of *Data Communication and Computer Networks* | Spring 2014/2013 |
| | Teaching Assistant of *Principles of System Software* | Fall 2013 |
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| | At SJTU: | |
| | Teaching Assistant of *Machine Learning and Data Mining in Practice* | Spring 2012 |
| | Teaching Assistant of *Project Workshop of Operating System* | Fall 2011 |
| | Teaching Assistant of *Project Workshop of Compiler Principles* | Spring 2011 |
| | **Teaching Fellow** of *Programming* | Fall 2010 |
| | Teaching Assistant of *Practice for Programming and Coding Ability* | Fall 2010 |
| | Teaching Assistant of *Data Structure* | Spring 2010 |
| | Teaching Assistant of *Programming* | Fall 2009 |