

## 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.

## EXPERIENCE

Sep 2012 - Oct 2015

**Research Collaborator** at [Noah's Ark Lab](#), Huawei, Hong Kong, China

- Graph processing: developed a single-machine disk-based graph processing system called VENUS which has been deployed inside Huawei.
- Stream processing: developed the prototype of the StreamSMART platform for Huawei.

Feb 2012 - June 2012

**Research Assistant** at [Center for Brain-like Computing and Machine Intelligence](#), SJTU, Shanghai, China

- Developed a sketch-based image search system called [Painting-Finder](#) with [Prof. Liqing Zhang](#).

July 2011 - Feb 2012

**Research Intern** at [Tencent PC Manager Team](#), Tencent, Shenzhen, China

- Worked on malware analysis.

July 2010 - Jun 2011

**Research Assistant** at [Center for Brain-like Computing and Machine Intelligence](#), SJTU, Shanghai, China

- Worked on brain computer interface and EEG data processing with [Prof. Liqing Zhang](#).

## PUBLICATIONS

Conference:

- **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)
- **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 Follower 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:

- **VENUS: A System for Streamlined Graph Computation on a Single PC**  
**Qin Liu**, Jiefeng Cheng, Zhenguo Li, John C.S. Lui.  
*IEEE Transactions on Knowledge and Data Engineering*, 2015  
(An earlier version appeared in 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.  
*Journal of Systems and Software*, 2015  
(An earlier version appeared in DSN 2014)

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

SKILLS	<b>Programming Language:</b> C/C++, Python, Java
	<b>Others:</b> parallel programming (OpenMP), distributed programming (MPI, ZeroMQ, Spark), streaming systems (Storm), ...