

EXPERIENCE

Software Engineer

May 2017-Present

Google Cloud, Google Inc, Sunnyvale, CA, USA

- Data security and privacy, data analytics, Google infrastructure

iOS App Development

May 2013 – June 2016

Based on my research of location privacy, I developed an iPhone app LocLok (search LocLok in Apple's app store; supported by NSF I-Corps award)



Research Intern

May 2014 – August 2014

Samsung Research America, San Jose, CA, USA

- Developed a privacy-preserving data release system.

Research Assistant

August 2011 – April 2017

Emory University, Atlanta, GA, USA

- Developed a private-data release system, DPCube, to publish data containing sensitive information, supported by Cisco research award.
- Developed a method to release locations of smartphones with privacy protection, supported by National Science Foundation (NSF # 1117763) and Google research award.

Research Assistant

September 2008 – July 2011

Tsinghua University, Beijing, China

- Completed the International Science Cooperation Project (#GJ200807210023A) of healthcare data release.
- Developed a P2P (Peer to Peer) streaming video broadcast system.

Industrial Engineer

July 2005 – June 2007

Department of Industrial engineering, InfoVision LTD, Kunshan, Jiangsu, China

- Analyzed production and equipment efficiency, diagnosed the bottleneck of production line.
- Built database system connecting to MES (Manufacturing Execution System) to optimize productivity.

EDUCATION

Emory University, USA, Ph.D, Computer Science

August 2011 – April 2017

Tsinghua University, China, Master, Computer Science

September 2008 – July 2011

Xi'an Jiaotong University, China

September 2000 – July 2005

Undergraduate student, 3 bachelor degrees (Computer science, mechanics and management)

AWARDS

- Amazon graduate research symposium, 2017
- IEEE S&P student PC travel award, 2017
- NSF I-Corps award as entrepreneur lead, 2016
- ACM CCS travel award, 2015
- NSF ICDE scholarship, 2012
- Ph.D. Fellowship, Laney Graduate School of Emory University, 2011-2017
- Scholarship of Foxconn at Tsinghua University, Beijing, China 2009

PUBLICATIONS

Patent

- Methods and Systems for Determining Protected Location Information Based on Temporal Correlations. US Patent 9,867,041

Conference and Journal Papers

- Yang Cao, **Yonghui Xiao**, Li Xiong, Liquan Bai. PriSTE: From Location Privacy to Spatiotemporal Event Privacy. International Conference on Data Engineering (ICDE) 2019
- Yang Cao, Li Xiong, Masatoshi Yoshikawa, **Yonghui Xiao**, Si Zhang. ConTPL: Controlling Temporal Privacy Leakage in Differentially Private Continuous Data Release. VLDB, 2018
- Yang Cao, Masatoshi Yoshikawa, **Yonghui Xiao**, Li Xiong. Quantifying Differential Privacy in Continuous Data Release under Temporal Correlations. IEEE Transactions on Data and Knowledge Engineering, 2018
- **Yonghui Xiao**, Li Xiong, Si Zhang, Yang Cao. LocLok: Location Cloaking with Differential Privacy via Hidden Markov Model. International Conference on Very Large Database (VLDB), 2017
- Yang Cao, Masatoshi Yoshikawa, **Yonghui Xiao**, Li Xiong. Quantifying Differential Privacy under Temporal Correlations. IEEE International Conference on Data Engineering (ICDE), 2017
- Xiaofeng Xu, Li Xiong, Vaidy Sunderam, **Yonghui Xiao**. A Markov Chain Based Pruning Method for Predictive Range Queries. ACM SIGSPATIAL, 2016
- **Yonghui Xiao**, Li Xiong. Protecting Locations with Differential Privacy under Temporal Correlations. ACM Conference on Computer and Communications Security (CCS), 2015
- **Yonghui Xiao**, Li Xiong, Liyue Fan, Slawomir Goryczka, Haoran Li. DPCube: Differentially Private Histogram Release through Multidimensional Partitioning. Transactions on Data Privacy, 2014
- **Yonghui Xiao**, James Gardner, Li Xiong. DPCube: Releasing Differentially Private Data Cubes for Health Information. IEEE International Conference on Data Engineering (ICDE), 2012
- James Gardner, Li Xiong, **Yonghui Xiao**, Jingjing Gao, Andrew Post, Xiaoqian Jiang, Lucila Ohno-Machado. SHARE: System Design and Case Studies for Statistical Health Information Release. Journal of the American Medical Informatics Association (JAMIA), 2012
- **Yonghui Xiao**, Li Xiong, Chun Yuan. Differentially Private Data Release through Multidimensional Partitioning. 7th VLDB Workshop on Secure Date Management, 2010

PROFESSIONAL SERVICE

- Program committee: student PC of IEEE S&P 2016, 2017, TKDE 2016, TIFS 2016, TOPS 2016, TDSC 2017, TKDE 2017, TOPS 2017, Information Science 2017.
- External paper review for KDD 2010, SIGMOD 2011 Demo, VLDB 2012, CIKM demo 2013, ICDE 2014, CCS 2014, CIKM PSDB 2014, TDSC 2015 and TKDE 2015, CIKM 2016.