Xin Jin

Contact Information	Computer Science Division UC Berkeley 465 Soda Hall Berkeley, CA 94720	*Mobile:* +1-609-827-8858 *E-mail:* xinjin@cs.jhu.edu *homepage:* http://www.cs.jhu.edu/~xinjin

Research interests

Computer Networking, Distributed Systems. My recent research focuses on software-defined networking, cloud computing and big data.

Education

Princeton University 09/2011-06/2016
Ph.D., Computer Science
M.A., Computer Science
Advisor: Jennifer Rexford
Thesis: *Dynamic Control of Software-Defined Networks*

Peking University 09/2007-07/2011
B.S., Computer Science, GPA: 3.8/4.0, Rank: 1/130
B.A., Economics, GPA: 3.8/4.0

Professional Experience

Johns Hopkins University 07/2017-
Assistant Professor, Department of Computer Science
Conduct research in the field of computer networking and distributed systems.

University of California, Berkeley 07/2016-06/2017
Postdoctoral Researcher, Computer Science Division, Host: Ion Stoica
Design fast distributed systems for clouding computing and big data.

Open Networking Lab (ON.LAB) 07/2015
Academic Visitor, Host: Brian O'Connor, Guru Parulkar
Developed a module for network service composition for ONOS, a popular open-source network operating system for software-defined networks, as part of the technology transfer of the CoVisor project at Princeton.

Rockley Photonics 02/2015-06/2015
Research Intern, Host: Nathan Farrington
Designed a new architecture for high-performance data center switches with a novel combination of CMOS and optical technologies. Designed a packet scheduling algorithm tailored for the architecture that achieves high throughput and avoids starvation.

Microsoft Research Redmond 06/2013-02/2014
Research Intern, Host: Srikanth Kandula, Ratul Mahajan, Jitu Padhye, Ming Zhang
Designed Dionysus, a system that can perform fast, consistent network updates for software-defined networks. Implemented a prototype and evaluated the system with testbed experiments and large-scale simulations.

WeaverMobile 07/2011-08/2011
Software Development Intern, Host: Mike Ji, Raymond Wei, Xiaosong Yang
Developed WeConnect, an iOS application for a location-based social network service. Built and maintained iOS software developing infrastructure.

Microsoft Research Asia 07/2010-08/2010

Research Intern, Host: Chuanxiong Guo

Designed algorithms to provide bandwidth guarantees to multiple tenants in virtual data centers. Evaluated the efficiency and effectiveness of the algorithms with simulations.

Publications

Xin Jin, Yiran Li, Da Wei, Siming Li, Jie Gao, Lei Xu, Guangzhi Li, Wei Xu, Jennifer Rexford, "Optimizing bulk transfers with software-defined optical WAN", in *ACM SIGCOMM*, August 2016.

Guosai Wang, Shuhao Wang, Bing Luo, Weisong Shi, Yinghang Zhu, Wenjun Yang, Dianming Hu, Longbo Huang, **Xin Jin**, Wei Xu, "Increasing large-scale data center capacity by statistical power control", in *European Conference on Computer Systems (EuroSys)*, April 2016.

Da Wei, Lei Xu, **Xin Jin**, Yiran Li, Wei Xu, "A 12-rack, 180-server datacenter network (DCN) using multiwavelength optical switching and full stack optimization", in *Optical Fiber Communication Conference (OFC)*, March 2016.

Xin Jin, Nathan Farrington, Jennifer Rexford, "Your data center switch is trying too hard", in *Symposium on SDN Research (SOSR)*, March 2016.

Xin Jin, Jennifer Gossels, Jennifer Rexford, David Walker, "CoVisor: A compositional hypervisor for software-defined networks", in *USENIX Symposium on Networked Systems Design and Implementation (NSDI)*, May 2015.

Xuan Kelvin Zou, Jeffrey Erman, Vijay Gopalakrishnan, Emir Halepovic, Rittwik Jana, **Xin Jin**, Jennifer Rexford, and Rakesh K. Sinha, "Can accurate predictions improve video streaming in cellular networks?", in *ACM International Workshop on Mobile Computing Systems and Applications (HotMobile)*, February 2015.

Xin Jin, Hongqiang Harry Liu, Rohan Gandhi, Srikanth Kandula, Ratul Mahajan, Ming Zhang, Jennifer Rexford, Roger Wattenhofer, "Dynamic scheduling of network updates", in *ACM SIGCOMM*, August 2014.

Xin Jin, Jennifer Rexford, David Walker, "Incremental update for a compositional SDN hypervisor", in *ACM SIGCOMM Workshop on Hot Topics in Software Defined Networking (HotSDN)*, August 2014.

Xin Jin, Li Erran Li, Laurent Vanbever, Jennifer Rexford, "SoftCell: Scalable and flexible cellular core network architecture", in *ACM International Conference on emerging Networking EXperiments and Technologies (CoNEXT)*, December 2013.

Ziyu Shao, **Xin Jin**, Wenjie Jiang, Minghua Chen, Mung Chiang, "Intra-data-center traffic engineering with ensemble routing", in *IEEE International Conference on Computer Communications (INFOCOM)*, April 2013.

Xin Jin, Li Erran Li, Laurent Vanbever, Jennifer Rexford, "CellSDN: Software-Defined Cellular Core Networks", in *Open Networking Summit (Research Track)*, April 2013.

Xin Jin, Eric Keller, Jennifer Rexford, "Virtual switching without a hypervisor for a more secure cloud", in *USENIX Workshop on Hot Topics in Management of Internet, Cloud, and Enterprise Networks and Services (Hot-ICE)*, April 2012.

Weijie Su, **Xin Jin**, "Hidden markov model with parameter-optimized k-means clustering for handwriting recognition", in *International Conference on Internet Computing and Information Services (ICICIS)*, September 2011.

ChaoYi Bian, **Xin Jin**, Chao Liu, XiaoMing Li, Wei Yan, "Relative link quality assessment and hybrid routing scheme for wireless mesh networks", in *IEEE International Conference on Communications (ICC)*, June 2011.

Xin Jin, Weijie Su, Wei Yan, "Quantitative analysis of the VANET connectivity: Theory and application", in *IEEE Vehicular Technology Conference (VTC)*, May 2011.

Xin Jin, Weijie Su, Wei Yan, "A study of the VANET connectivity by percolation theory", in *IEEE Intelligent Vehicular Communications System Workshop (IVCS)*, January 2011.

Awards & Hornors

Chinese Government Award for Outstanding Students Abroad	2016
Siebel Scholar, the Siebel Foundation	Class of 2016
Charlotte Elizabeth Procter Fellowship, Princeton University	2015
Graduate Fellowship, Princeton University	2011
Beijing Outstanding Graduates, Peking University	2011
Peking University Outstanding Graduates, Peking University	2011
Excellent Bachelor Thesis, School of EECS, Peking University	2011
National Scholarship, Ministry of Education, China	2010
China Economic Research Scholarship, Peking University	2010
National Scholarship, Ministry of Education, China	2009
Peking University Merit Student, Peking University	2009
Suzhou Industrial Park Scholarship, Peking University	2008
Peking University Merit Student, Peking University	2008

Teaching Experience

Princeton University

COS 561 Advanced Computer Networks, Teaching Assistant	Fall 2014
COS 333 Advanced Programming Techniques, Teaching Assistant	Spring 2014
COS 333 Advanced Programming Techniques, Teaching Assistant	Spring 2013

Peking University

Introduction to Computer Networks, Teaching Assistant	Fall 2011

Service

Technical Program Committee

2017 ACM Symposium on SDN Research (SOSR)

2016 ACM International Workshop on Hot Topics in Planet-scale mObile computing and online Social neTworking (HotPost)

2015 ACM International Workshop on Hot Topics in Planet-scale mObile computing and online Social neTworking (HotPost)

Reviewer

2016 ACM SIGCOMM CCR, IEEE ICCCN, IEEE/ACM Transactions on Networking, IEEE Transactions on Mobile Computing, IEEE Transactions on Network and Service Management, Transactions on Parallel and Distributed Systems, Elsevier Computer Communications

2015 ACM MobiHoc, IEEE INFOCOM, IEEE/ACM Transactions on Networking, IEEE Transactions on Mobile Computing, IEEE Transactions on Services Computing, IEEE Transactions on Communications, IEEE International Conference on Mobile Ad-hoc and Sensor Systems

2014 IEEE/ACM Transactions on Networking, IEEE Transactions on Mobile Computing, IEEE Transactions on Vehicular Technology

2013 IEEE ICNP, IEEE VTC, IEEE Communication Magazine