

# Xin Jin

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| CONTACT<br>INFORMATION     | Computer Science Division<br>UC Berkeley<br>465 Soda Hall<br>Berkeley, CA 94720  | <i>Mobile:</i> +1-609-827-8858<br><i>E-mail:</i> <a href="mailto:xinjin@cs.berkeley.edu">xinjin@cs.berkeley.edu</a><br><i>homepage:</i><br><a href="https://people.eecs.berkeley.edu/~xinjin">https://people.eecs.berkeley.edu/~xinjin</a> |
| RESEARCH<br>INTERESTS      | Computer Networking, Distributed Systems. My recent research focuses on software-defined networking, cloud computing and big data.   |  |
| EDUCATION                  | <b>Princeton University</b><br>Ph.D., Computer Science<br>M.A., Computer Science<br>Advisor: Jennifer Rexford<br>Thesis: <i>Dynamic Control of Software-Defined Networks</i>   | 09/2011-06/2016  |
|                            | <b>Peking University</b><br>B.S., Computer Science, GPA: 3.8/4.0, Rank: 1/130<br>B.A., Economics, GPA: 3.8/4.0   | 09/2007-07/2011  |
| PROFESSIONAL<br>EXPERIENCE | <b>Johns Hopkins University</b><br><i>Assistant Professor, Department of Computer Science</i><br>Conduct research in the field in computer networking and distributed systems.   | 07/2017-   |
|                            | <b>University of California, Berkeley</b><br><i>Postdoctoral Researcher, Computer Science Division, Host: Ion Stoica</i><br>Design fast distributed systems for clouding computing and big data.   | 07/2016-06/2017  |
|                            | <b>Open Networking Lab (ON.LAB)</b><br><i>Academic Visitor, Host: Brian O'Connor, Guru Parulkar</i><br>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.                          | 07/2015  |
|                            | <b>Rockley Photonics</b><br><i>Research Intern, Host: Nathan Farrington</i><br>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.          | 02/2015-06/2015  |
|                            | <b>Microsoft Research Redmond</b><br><i>Research Intern, Host: Srikanth Kandula, Ratul Mahajan, Jitu Padhye, Ming Zhang</i><br>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. | 06/2013-02/2014  |
|                            | <b>WeaverMobile</b><br><i>Software Development Intern, Host: Mike Ji, Raymond Wei, Xiaosong Yang</i><br>Developed WeConnect, an iOS application for a location-based social network service. Built and maintained iOS software developing infrastructure.  | 07/2011-08/2011  |

**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.

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| AWARDS &<br>HONORS | 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          |

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| TEACHING<br>EXPERIENCE | <b>Princeton University</b>                                 |             |
|                        | 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 |
|                        | <b>Peking University</b>                                    |             |
|                        | Introduction to Computer Networks, Teaching Assistant       | Fall 2011   |

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|---------|---|--|
| SERVICE | <b>Technical Program Committee</b>  |  |
|         | 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