

Jinyang Li

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Education

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

Cambridge, MA

Ph.D., Computer Science, 2005

Thesis: Tradeoffs of routing in dynamic peer-to-peer networks

Minor in Applied Mathematics

S.M. in Computer Science, 2001

Thesis: A scalable location service for geographic ad hoc routing

NATIONAL UNIVERSITY OF SINGAPORE

Singapore

B.S. (first class honors) in Computer Science, 1998

Research Interests

Distributed systems, operating systems, and wireless networks

Professional Experience

5/2012-now	Associate Professor	New York University, Department of Computer Science
9/2006-present	Assistant Professor	New York University, Department of Computer Science
12/2005-8/2006	Postdoctoral Researcher	UC Berkeley

Honors and Awards

2014, 2010	Google Research Award
2011	Sloan Research Fellowship
2008–2010	EMC Professor Group in Computer Systems and Networking at Tsinghua University
2004–2005	Microsoft Research Graduate Fellowship
1998	IEEE Singapore Information Technology Gold Medal

Professional Services

2015	Program Committee (ACM SoCC'15, NSDI'15)
2014	Program Committee (USENIX ATC'14, SoCC'14, OSDI'14 (light))
2013	Program Committee (HotOS'13, Eurosys'13, SoCC'13, APSys'13, LADIS'13)
2012	Program Committee (OSDI'12)
2011	Program Committee (NSDI'11, HotCloud'11)
2010	Program Committee (SIGCOMM'10, IPTPS'10, WOSN'10, NetEcon'10)

2009	Poster Session Chair (ASPLOS'09), Program Committee (IPTPS'09)
2008	Program Committee (CoNEXT'08, SocialNets'08), Program Committee Light (NSDI'08)
2008	Panel Reviewer, GENI project office
2007	Program Committee (NSDI'07, IPTPS'07)
2006	Panel Reviewer, NSF Future Internet Network Design (FIND)

Journal Publications

- [1] Nguyen Tran and Jinyang Li. Efficient cooperative backup with decentralized trust management. *ACM Transactions on Storage (TOS)*, 8(3), 2012.
- [2] Eddie Kohler, Jinyang Li, Vern Paxson, and Scott Shenker. Observed structure of addresses in IP traffic. *IEEE/ACM Transactions on Networking (ToN)*, 16(6):1207–1218, December 2006.

Refereed Conference Publications

- [3] Chien-Chin Huang, Qi Chen, Zhaoguo Wang, Russell Power, Jorge Ortiz, Jinyang Li, and Zhen Xiao. Spartan: A distributed array framework with smart tiling. In *USENIX Annual Technical Conference*, 2015.
- [4] Shuai Mu, Yang Cui, Yang Zhang, Wyatt Lloyd, and Jinyang Li. Extracting more concurrency from distributed transactions. In *11th USENIX Symposium on Operating Systems Design and Implementation (OSDI'14)*, 2014.
- [5] Qi Chen, Yisheng Liao, Christopher Mitchell, Jinyang Li, and Zhen Xiao. Building a scalable multimedia search engine using infiniband. In *USENIX Workshop on Hot Topics in Cloud Computing (HotCloud)*, 2014.
- [6] Zhaoguo Wang, Hao Qian, Jinyang Li, and Haibo Chen. Using restricted transactional memory to build a scalable in-memory database. In *The European Conference on Computer Systems (EuroSys)*, 2014.
- [7] Yang Zhang, Russell Power, Siyuan Zhou, Marcos K. Aguilera Yair Sovran, and Jinyang Li. Transaction chains: achieving serializability with low latency in geo-distributed storage systems. In *24th ACM Symposium on Operating Systems Principles (SOSP)*, 2013.
- [8] Christopher Mitchell, Yifeng Geng, and Jinyang Li. Using one-sided rdma reads to build a fast, cpu-efficient key-value store. In *USENIX Annual Technical Conference (USENIX ATC)*, 2013.
- [9] Yair Sovran, Russell Power, Marcos K. Aguilera, and Jinyang Li. Transactional storage for geo-replicated systems. In *ACM Symposium on Operating Systems Principles (SOSP)*, 2011.
- [10] Nguyen Tran, Jinyang Li, Lakshminarayanan Subramanian, and Sherman S.M. Chow. Optimal sybil-resilient node admission control. In *IEEE International Conference on Computer Communications (INFOCOM)*, 2011.
- [11] Russell Power and Jinyang Li. Piccolo: Building fast, distributed programs with partitioned tables. In *9th USENIX Symposium on Operating Systems Design and Implementation (OSDI)*, 2010.
- [12] Aditya Dhananjay, Ashlesh Sharma, Michael Paik, Jay Chen, Trishank Kuppusamy, Jinyang Li, and Lakshminarayanan Subramanian. Hermes: Data transmission over unknown voice channels. In *Proceedings of the 16th ACM Conference on Mobile Computing and Networking (Mobicom)*, 2010.
- [13] Aditya Dhananjay, Hui Zhang, Jinyang Li, and Lakshminarayanan Subramanian. Design and implementation of high-performance dual-radio mesh networks. In *ACM SIGCOMM*, 2009.

- [14] Nguyen Tran, Bonan Min, Jinyang Li, and Lakshminarayanan Subramanian. Sybil-resilient online content voting. In *Proc. of the 6th USENIX Symposium on Networked System Design and Implementation (NSDI)*, April 2009.
- [15] Jeremy Stribling, Yair Sovran, Irene Zhang, Xavid Pretzer, Jinyang Li, Frans Kaashoek, and Robert Morris. Simplifying wide-area application development with WheelFs. In *Proc. of the 6th USENIX Symposium on Networked System Design and Implementation (NSDI)*, April 2009.
- [16] Jay Chen, Lakshminarayanan Subramanian, and Jinyang Li. Ruralcafe: Enhancing web search in intermittent networks. In *18th International World Wide Web Conference (WWW)*, 2009.
- [17] Jeremy Stribling, Jinyang Li, Isaac G. Councill, Frans Kaashoek, and Robert Morris. Overcite: A distributed, cooperative citeseer. In *the 3rd Symposium on Networked Systems Design and Implementation (NSDI)*, May 2006.
- [18] Jinyang Li, Jeremy Stribling, Robert Morris, Frans Kaashoek, and Thomer Gil. A performance vs. cost framework for evaluating DHT design tradeoffs under churn. In *Proceedings of 24th IEEE International Conference on Computer Communications (INFOCOM)*, March 2005.
- [19] Jinyang Li, Jeremy Stribling, Robert Morris, and Frans Kaashoek. Bandwidth efficient management of DHT routing tables. In *the 2nd Symposium on Networked Systems Design and Implementation (NSDI)*, May 2005.
- [20] Frank Dabek, James Robertson, Jinyang Li, Emil Sit, Frans Kaashoek, and Robert Morris. Designing a DHT for low latency and high throughput. In *Proceedings of the 1st Symposium on Networked Systems Design and Implementation (NSDI)*, 2004.
- [21] Jinyang Li, Charles Blake, Douglas De Couto, Hu Imm Lee, and Robert Morris. Capacity of ad hoc wireless networks. In *Proceedings of the 7th ACM Conference on Mobile Computing and Networking (Mobicom)*, August 2001.
- [22] Jinyang Li, John Jannotti, Douglas De Couto, David R. Karger, and Robert Morris. A scalable location service for geographic ad hoc routing. In *Proceedings of the 6th ACM Conference on Mobile Computing and Networking (Mobicom)*, August 2000.

Workshop and Other Refereed Publications

- [23] Yisheng Liao, Alex Rubinsteyn, Russell Power, and Jinyang Li. Learning random forests on the gpu. In *NIPS Workshop on Parallel and Large-scale Machine Learning (Big Learning) poster*, 2013.
- [24] Zhaoguo Wang, Hao Qian, Haibo Chen, and Jinyang Li. Opportunities and pitfalls of multi-core scaling using hardware transaction memory. In *Asia-Pacific Workshop on Systems (APSys)*, 2013.
- [25] Christopher Mitchell, Russell Power, and Jinyang Li. Oolong: Asynchronous distributed computation made easy. In *Asian-Pacific Workshop on Systems (APSys)*, 2012.
- [26] Aditya Dhananjan, Matt Tierney, Jinyang Li, and Lashminarayanan Subramanian. Wire: A new rural connectivity paradigm. In *ACM SIGCOMM Demo, (Best Demo Award)*, 2011.
- [27] Nguyen Tran, Jinyang Li, and Lakshminarayanan Subramanian. Collusion-resilient credit-based reputations for peer-to-peer content distribution. In *Workshop on the Economics of Networks, Systems, and Computation (NetEcon)*, 2010.
- [28] Nguyen Tran, Jinyang Li, Lakshminarayanan Subramanian, and Sherman Chow. Brief announcement: Improving social network based sybil-resilient node admission control. In *29th ACM Symposium on Principles of Distributed Computing (PODC)*, 2010.

- [29] Nguyen Tran, Frank Chiang, and Jinyang Li. Friendstore: cooperative online backup using trusted nodes. In *International Workshop on Social Network Systems (SocialNets)*, Apr 2008. The full version is available as NYU computer science department technical report TR2008-917, Nov 2008.
- [30] Yair Sovran, Alana Libonati, and Jinyang Li. Pass it on: Social networks stymie censors. In *Proc. of the 7th International Workshop on Peer-to-Peer Systems (IPTPS)*, Feb 2008. The full version is available as NYU computer science department TR2008-918, Nov 2008.
- [31] Jeremy Stribling, Emil Sit, Frans Kaashoek, Jinyang Li, and Robert Morris. Don't give up on distributed file systems. In *Proc. of the 6th International Workshop on Peer-to-Peer Systems (IPTPS)*, Feb 2007.
- [32] Jinyang Li and Frank Dabek. F2F: reliable storage in open networks. In *Proceedings of the 5th International Workshop on Peer-to-Peer Systems (IPTPS)*, February 2006.
- [33] Jeremy Stribling, Isaac G. Councill, Jinyang Li, Frans Kaashoek, David R. Karger, Robert Morris, and Scott Shenker. OverCite: A cooperative digital research library. In *Proceedings of the 4rd International Workshop on Peer-to-Peer Systems (IPTPS)*, February 2005.
- [34] Jinyang Li, Jeremy Stribling, Thomer Gil, Robert Morris, and Frans Kaashoek. Comparing the performance of distributed hash tables under churn. In *Proceedings of the 3rd International Workshop on Peer-to-Peer Systems (IPTPS)*, February 2004.
- [35] Russ Cox, Frank Dabek, Frans Kaashoek, Jinyang Li, and Robert Morris. Practical, distributed network coordinates. In *2nd Workshop on Hot Topics in Networks (HotNets)*, 2004.
- [36] Jinyang Li, Boon Thau Loo, Joseph Hellerstein, Frans Kaashoek, David Karger, and Robert Morris. On the feasibility of peer-to-peer web indexing and search. In *Proceedings of the 2nd International Workshop on Peer-to-Peer Systems (IPTPS)*, February 2003.
- [37] Eddie Kohler, Jinyang Li, Vern Paxson, and Scott Shenker. Observed structure of addresses in IP traffic. In *Internet Measurement Workshop (IMW)*, 2002.
- [38] Robert Morris, Frans Kaashoek, John Jonnotti, Jinyang Li, and Douglas S. J. De Couto. CarNet: A scalable ad hoc wireless network system. In *9th ACM SIGOPS European Workshop*, 2000.

Invited Talks

- 2014 "Fast distributed transactions via offline analysis", Cornell University
- 2013 "Re-designing distributed systems for the era of fast data-center networks ", Carnegie Mellon University.
- 2013 "Using One-Sided RDMA Reads to Build a Fast, CPU-Efficient Key-Value Store", USENIX Annual Technical Conference
- 2013 "Transaction chains: achieving serializability with low latency in geo-distributed storage systems", Google.
- 2013 "Transaction chains: achieving serializability with low latency in geo-distributed storage systems", 22nd ACM Symposium on Operating Systems Principles.
- 2011 "Transactional storage for geo-replicated systems", 23rd ACM Symposium on Operating Systems Principles
- 2010 "Piccolo: Building Fast, Distributed Programs with Partitioned Tables", Tsinghua University.
- 2010 "Piccolo: Building Fast, Distributed Programs with Partitioned Tables", MIT.