

# Xiaolan Zhang

Associate Professor  
Department of Computer and Information Sciences  
332 John Mulcahy Hall  
441 East Fordham Road  
Bronx, NY 10458  
Email: xzhang@fordham.edu  
Homepage: <http://storm.cis.fordham.edu/~zhang>

## WORK EXPERIENCE

- Assistant/Associate Professor, Department of Computer and Information Science Aug'07-now FORDHAM UNIVERSITY New York, New York
- Senior Software Engineer and Project Leader July'93-May'98 GEOGRAPHICAL INFORMATION SYSTEM LAB, BEIJING UNIVERSITY Beijing, P.R.China
- Testing Engineer July'93-Jan'94, HEWLETT PACKARD CORP. Cupertino, CA
- Software Engineer July'92-July'93, STATE KEY CASE LAB, BEIJING UNIVERSITY Beijing,

## EDUCATIONS

- **Ph.D. in Computer Science**, Sept 2007, University of Massachusetts at Amherst, Advisors: Prof. Jim Kurose, Prof. Don Towsley
- **Master of Science (M.S.) in Computer Science**, May, 2001, University of Massachusetts at Amherst
- **Bachelor of Science (B.S.) in Computer Science**, July, 1992, Peking University, Beijing, China

## PUBLICATIONS

### Journals

1. **Learning an adaptive forwarding strategy for mobile wireless networks: resource usage vs. latency**  
Victoria Manfredi, Alicia Wolfe, Xiaolan Zhang, Bing Wang  
Machine Learning, 2024. <https://doi.org/10.1007/s10994-024-06601-3>

2. **Detecting Node Failures in Mobile Ad-hoc Networks: A Probabilistic Approach**  
R. Jin, B. Wang, W. Wei, X. Zhang, X. Chen, Y. Bar-Shalom and P. Willett.  
IEEE Transaction on Mobile Computing, Vol. 15, No. 7, July 2016.
3. **Benefits of Network Coding for Unicast Application in Disruption Tolerant Networks**, Xiaolan Zhang, Giovanni Neglia, Jim Kurose, Don Towsley, and Haixiang Wang,, IEEE/ACM Transactions on Networking, 2012
4. Xiaolan Zhang, Honggang Zhang, Yu Gu, **Impact of Source Counter on Routing Performance in Resource Constrained DTNs**, in Elsevier Journal of Pervasive and Mobile Computing, Volume 7, Issue 2, April 2011, Pages 172–188
5. Xiaolan Zhang, Giovanni Neglia, Jim Kurose, and Don Towsley, **Performance Modeling of Epidemic Routing**, in Elsevier Computer Networks journal, 2007, Volume 51/10, pages 2859- 2891.1.

### **Book chapter**

Xiaolan Zhang, Giovanni Neglia, Jim Kuroes, **Network Coding in Disruption Tolerant Networks** in the book titled **Network Coding: Fundamentals and Applications**, edited by Muriel Medard, Alex Sprintson, Academic Press, ISBN: 978-0-12-380918-b, Oct 2012

### **Conference and Workshop papers**

1. **Learning an Adaptive Forwarding Strategy for Mobile Wireless Networks: Resource Usage vs. Latency**  
Victoria Manfredi, Alicia Wolfe, Xiaolan Zhang, Bing Wang  
Reinforcement Learning for Real Life (RL4RealLife) Workshop in the 36th Conference on Neural Information Processing Systems (NeurIPS), 2022
2. **Relational Deep Reinforcement Learning for Routing in Wireless Networks**  
Victoria Mandredi, Alicia Wolfe, Bing Wang, Xiaolan Zhang  
Proceedings of IEEE Internatioanl Symposium on a World of Wireless, Mobile and Multimedia Networks (WoWMoM), June, 2021.
3. **Network Coding based Transmission Schemes in DTNs with Group Meetings**  
Abdurrahman Arikan, Yuexin Mao, Xiaolan Zhangy, Bing Wang, Shengli Zhou and Song Han.  
Proceedings of IEEE Performance Computing and Communications Conference (IPCCC), December 2015.

4. **Delay-Sensitive Data Gathering in Wireless Sensor Networks**  
Ohad Kravchick, David Wei, and Xiaolan Zhang  
in IEEE PIMRC (Annual International Symposium on Personal, Indoor, and Mobile Radio Communications) 2013
5. Giovanni Neglia, Xiaolan Zhang, Jim Kurose, Don Towsley and Haixiang Wang, **On Optimal Packet Routing in Deterministic DTNs**, IEEE Vehicular Technology Conference (VTC) 2013
6. Hung-Da Shih, **Xiaolan Zhang**, David S.L. Wei, Kshirasagar Naik, Rung Ching Chen, **Design and Implementation of a Mobile Sensor Network Test-bed using Sun SPOTS**, in International Conference on Networking and Information Technology (ICNIT) 2012
7. Xiaolan Zhang, Honggang Zhang, Yu Gu, **Impact of Source Counter on DTN Routing Control under Resource Constraints**, in ACM International Workshop on Mobile Opportunistic Networks (MobiOpp) 2010.
8. Xiaolan Zhang, Jim Kurose, Brian Levine, Don Towsley, and Honggang Zhang, **Study of a Bus-Based Disruption Tolerant Network: Mobility Modeling and Impact on Routing**, in ACM International Conference on Mobile Computing and Networking (MobiCom) 2007.
9. Giovanni Neglia, and Xiaolan Zhang, **Optimal Delay-Power Trade-off in Sparse Delay Tolerant Networks: a preliminary study**, SIGCOMM Challenged Network workshop, 2006.
10. Xiaolan Zhang, Giovanni Neglia, Jim Kurose, and Don Towsley, **On the Benefits of Random Linear Coding for Unicast Applications in Disruption Tolerant Networks**, IEEE Second Workshop on Network Coding, Theory, and Applications (NETCOD), 2006.
11. Xiaolan Zhang, Giovanni Neglia, Jim Kurose, and Don Towsley, **Performance Modeling of Epidemic Routing**, IFIP Networking 2006
12. Xiaolan Zhang, Michael K. Bradshaw, Yang Guo, Bing Wang, Jim Kurose, Prashant Shenoy, and Don Towsley, **AMPS: A Flexible, Scalable Proxy Testbed for Implementing Streaming Services**, ACM Workshop on Networking and Operating Systems Support for Digital Audio and Video (NOSSDAV) 2004.

- 13. Towards Interoperable Multimedia Streaming Systems**, Xiaolan Zhang, Don Towsley, and Jack Wileden, International Packet Video workshop, 2002

### **Technical Report**

- Bing Wang, Michael K. Bradshaw, Yang Guo, Jim Kurose, Subhabrata Sen, Prashant Shenoy, Don Towsley, Wei Wei, **Xiaolan Zhang**, **Empirical Study of Proxy-assisted Video Streaming Over the Best-effort Internet**, UMass CMPSCI Technical Report 03-33.

### **PROFESSIONAL ACTIVITIES**

- Editorial Board of Elsevier Computer Communication Journal
- NSF Networking Technology and Systems (NeTS) program Review Panelist, Spring 2012
- Reviewer for many conferences and journals, including IEEE Journal on Selected Areas in Communications, IEEE/ACM Transactions on Networking, IEEE Transactions on Communications, ACM Multimedia Systems Journal, IEEE Transaction on Mobile Computing, IEEE Transactions on Vehicular Technology, Elsevier Ad Hoc, International Journal of Ad Hoc and Ubiquitous Computing, Elsevier Pervasive and Mobile Computing, International Journal of Communication Systems, ACM Transactions on Autonomous Adaptive Systems, Discrete Applied Mathematics, IEEE International Conference on Mobile Ad-hoc and Sensor Systems, IEEE INFOCOM, IEEE SECON
- Technical program committee member for International Workshop on Quality of Service (IWQos) 2008, 7th IEEE International Conference on Pervasive Computing and Communication (IEEE PerCom'09), ACM Mobicom workshop on Challenged Networks (CHANT) (2009- 2011), IEEE International Conference on Computer Communications and Networks (ICCCN) 2010, CRNet (International Workshop on Cognitive Radio Networks) 2010, IEEE Globecom AHSN (2011-2013)