Qunfeng Dong

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Citizenship: China
Visa status: F1

Education

- **University of Wisconsin - Madison**
  Ph.D. in Computer Science — Date of Completion: 2007.05; Date of Graduation: 2007.08
- **University of Massachusetts - Amherst**
  M.S. in Computer Science — 2005.02
- **University of Science and Technology of China (USTC)**, Hefei, Anhui, China.
  M.S. in Computer Science — 2001.12
  B.S. in Computer Science — 1998.07

Research interests

- Mobile and Wireless Networking
- Packet processing in routers/firewalls
- Network security
- Network measurement
- Network management

Research internships

- **Bell Laboratories, Lucent Technologies.** Murray Hill, New Jersey, USA. — Summer 2005
- **NEC Laboratories America, Inc.** Princeton, New Jersey, USA. — Spring 2005

Research partners

- **AT&T Laboratories - Research**
- **Bell Laboratories, Lucent Technologies**
- **Cisco Systems, Inc.**
- **IBM Thomas J. Watson Research Center**
- **University of Cambridge**

Honors and Awards (in USA)

- **NSF Student Travel Grant** — 2006.10
  14th IEEE International Conference on Network Protocols (IEEE ICNP 2006)
- **ACM SIGCOMM Student Travel Grant** — 2006.07
  2006 Annual Conference of ACM SIGCOMM (ACM SIGCOMM 2006)
- **ACM SIGMETRICS Student Travel Grant** — 2006.05
  2006 Annual Conference of ACM SIGMETRICS (ACM SIGMETRICS 2006)
- **NSF Student Travel Grant** — 2006.03
  25th Annual Joint Conference of the IEEE Communication Society (IEEE INFOCOM 2006)
- **IBM Ph.D. Fellowship Nominee** — 2005.10
  University of Wisconsin - Madison
- **NSF Student Travel Grant** — 2005.10
  13th IEEE International Conference on Network Protocols (IEEE ICNP 2005)
- **Graduate School Travel Grant** — 2005.02
  University of Massachusetts - Amherst
  4th International Symposium on Information Processing in Sensor Networks (IPSN 2005)

Refereed publications

◇ Practical Network Coding in Wireless Networks
Qunfeng Dong, Jianming Wu, Wenjun Hu, Jon Crowcroft
ACM MobiCom 2007
Short paper. Acceptance ratio: 18.9% (26+14 out of 233 submissions).
Submitted as a regular paper. Review scores: 3-4-3.

◇ Wire Speed Packet Classification Without TCAM: A Few More Registers (And A Bit of Logic) Are Enough
Qunfeng Dong, Suman Banerjee, Jia Wang, Dheeraj Agrawal
ACM SIGMETRICS 2007
Regular paper. Acceptance ratio: 17.1% (29 out of 170 submissions).

◇ Load Balancing in Large Scale RFID Systems
Qunfeng Dong, Ashutosh Shukla, Vivek Shrivastava, Dheeraj Agrawal, Suman Banerjee, Koushik Kar
IEEE INFOCOM 2007
Minisymposium paper. Acceptance ratio: 25.0% (252+88 out of 1,400 submissions).
Full version is under submission to *Ad Hoc Networks (Elsevier)*

◇ Wire Speed Packet Classification Without TCAM: One More Register (And A Bit of Logic) Is Enough
Qunfeng Dong, Suman Banerjee, Jia Wang, Dheeraj Agrawal
ACM SIGCOMM 2006
Poster.

◇ Packet Classifiers in Ternary CAMs Can Be Smaller
Qunfeng Dong, Suman Banerjee, Jia Wang, Dheeraj Agrawal, Ashutosh Shukla
ACM SIGMETRICS 2006
Regular paper. Acceptance ratio: 13.7% (30 out of 219 submissions).

◇ Throughput Optimization and Fair Bandwidth Allocation in Multi-Hop Wireless LANs
Qunfeng Dong, Suman Banerjee, Benyuan Liu
IEEE INFOCOM 2006
Regular paper. Acceptance ratio: 18.0% (252 out of 1,400 submissions).

◇ Efficient Probabilistic Packet Marking
Qunfeng Dong, Micah Adler, Suman Banerjee, Kazu Hirata
IEEE ICNP 2005
Regular paper. Acceptance ratio: 17.0% (36 out of 212 submissions).

◇ Minimum Energy Reliable Paths Using Unreliable Wireless Links
Qunfeng Dong, Suman Banerjee, Micah Adler, Archan Misra
ACM MobiHoc 2005
Regular paper. Acceptance ratio: 14.2% (40 out of 281 submissions).

◇ Maximizing System Lifetime in Wireless Sensor Networks
Qunfeng Dong
IPSN 2005
Regular paper. Acceptance ratio: 20.6% (44 out of 213 submissions).
Full version is under submission to *ACM Transactions on Sensor Networks (ToSN)*

Patents

◇ Apparatus and Algorithms for Wire Speed Packet Classification Through A Rule Cache and Rule Evolution
U.S. Provisional Patent Application No. P07018US (From SIGMETRICS 2007 paper)

◇ Algorithms for Reducing the Size of Packet Classifiers in Classification Devices
U.S. Provisional Patent Application No. P06413US (From SIGMETRICS 2006 paper)

Invited talks

◇ Department of Computer Sciences, University of Texas - Austin 12/13/2006
Title: *Practical network coding in wireless networks*

Teaching experience

◇ **Guest Lecturer**

· University of Wisconsin - Madison

– *CS 838: Mobile and Wireless Networking* Fall 2006

◇ **Teaching Assistant**

· University of Massachusetts - Amherst

– *CS 611: Advanced Algorithms* Fall 2003

– *CS 611: Advanced Algorithms* Fall 2002

· University of Science and Technology of China (USTC)

– *Assembly Language Programming* Spring 1999

– *One-Variable Calculus* Fall 1998

Academic services

◇ **Reviewer**

· Conference

– IEEE Infocom 2007

– IEEE Infocom 2006

– IEEE Globecom 2006

– ACM DIAL-M 2005

– IEEE VTC 2005 Fall

· Journal

– ACM SIGCOMM Computer Communication Review (CCR)

– IEEE Transactions on Communications

– Computer Networks Journal

◇ **Referee**

· Conference

– ACM MobiCom 2006

– ACM MobiHoc 2006

– IEEE SECON 2005

– ACM SPAA 2003

· Journal

– ACM Transactions on Sensor Networks

Membership

◇ **ACM**

◇ **IEEE**

◇ **IEEE Communications Society**

References

Available upon request.