# CURRICULUM VITAE OF YAN ZHANG

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# **EDUCATION**

The University of Arizona, Tucson, AZ (2009 - Present)

Ph.D. Candidate, Electrical Engineering, Advisor: Prof. Loukas Lazos, GPA: 3.91/4.00

Nanjing University of Posts and Telecommunications (NUPT), China (2006 - 2009)

M.S., Electrical Engineering, Advisor: Prof. Chengqi Xu, GPA: 87/100

Nanjing University of Posts and Telecommunications (NUPT), China (2002 - 2006)

B.S., Computer Science, GPA: 90/100, Rank: 6/284

### RESEARCH INTERESTS

- Wireless networks (Ad hoc, Cognitive radio, Sensor, Mesh, WiFi, WiMAX networks)
- MAC-layer systems design; Cross-layer design between PHY and MAC
- Security and privacy in wireless networks

# TECHNICAL EXPERIENCE AND RESEARCH PROJECTS

Research Assistant, University of Arizona, Tucson, AZ (Aug. 2009 - Present)

- PHY-layer voting for fast cooperation in cognitive radio networks (in progress).
- Jamming-resistant MAC protocols for multi-channel wireless networks (in progress).
- PHY-aided full-duplex MAC protocol design in multi-channel 802.11 networks.
- Secure channel access in multi-channel wireless networks.
- Security on MAC protocols in cognitive radio networks.

Research Assistant, NUPT, China (Feb. 2008 - Jan. 2009)

• Network coding and its applications in wireless networks.

Teaching Assistant, NUPT, China (Mar. 2008 - Jul. 2008)

• Fundamentals of Information Theory.

### AWARDS AND HONORS

- GPSC Student Travel Grant, University of Arizona, 2013
- Outstanding Graduate Student, NUPT, 2007, 2008
- Tongding Enterprise Scholarship, Tongding Group Co., Ltd., 2005
- Best Student Award, NUPT, 2003, 2004, 2005
- First Prize Award and Outstanding Undergraduate Student, NUPT, 2004, 2005
- Second Prize Award and Outstanding Undergraduate Student, NUPT, 2003
- Outstanding Summer Intern of Jiangsu Communications Cup, 2003
- Excellent Student of Wuxi City, 2002

• Top Ten Young Artist of Wuxi City, 1998

# TECHNICAL SKILLS

Computer programming: C/C++, C#, SQL, ASP.NET, Perl, HTML

Simulation/Hardware experiment: OPNET Modeler (event-driven networking simulator), Matlab, USRP/LabVIEW, CSIM

### **PUBLICATIONS**

- [1] Yan Zhang, Loukas Lazos, Kai Chen, Bocan Hu, and Swetha Shivaramaiah, FD-MMAC: Combating Multi-Channel Hidden and Exposed Terminals Using a Single Transceiver, to appear in *Proc.* of The 33rd Annual IEEE International Conference on Computer Communications (INFOCOM 2014), Apr. 2014 (acceptance rate 19%).
- [2] **Yan Zhang** and Loukas Lazos, Countering Selfish Misbehavior in Multi-channel MAC Protocols, In *Proc. of the INFOCOM conference*, pages 2787 2795, 2013 (acceptance rate 17%).
- [3] Yan Zhang and Loukas Lazos, Vulnerabilities of Cognitive Radio MAC Protocols and Countermeasures, *IEEE Network Magazine*, 27(3): 40-45, 2013.
- [4] Yan Zhang, Chengqi Xu, and Feng Wang, A Novel Scheme for Secure Network Coding Using One-time Pad, In *Proc. of the International Conference on Networks Security, Wireless Communications and Trusted Computing* (NSWCTC), volume 1, pages 92-98, 2009.
- [5] Yan Zhang, A Study on An Improved Secure Network Coding Scheme, In *Proc. of the China 15th Symposium on Information Theory* (CSIT), pages 1-5, 2008.
- [6] Yan Zhang, On Network Coding in Wireless Ad Hoc Networks, In *Proc. of the third China Annual Conference on Radio Applications and Management* (CRAM), pages 1-5, 2008.
- [7] Feng Wang, Chengqi Xu, Xuande Ji, and **Yan Zhang**, Performance Analysis of Time-Hopping Pulse Width Modulation for Ultra-Wideband Impulse Radio, In *Proc. of the IEEE International Conference on Wireless Communications*, *Networking and Mobile Computing* (WiCOM), pages 1-5, 2008.
- [8] Feng Wang, Chengqi Xu, Xuande Ji, and **Yan Zhang**, Simplified Maximum Likelihood Channel Estimation Algorithm for Impulse Radio UWB, In *Proc. of the IEEE International Conference on Wireless Communications*, Networking and Mobile Computing (WiCOM), pages 1-5, 2008.