

# Xu (Kevin) Su

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## EDUCATION

**The University of Texas at San Antonio**  
Ph.D. Student, Computer Science

San Antonio, TX  
Cumulative GPA: 4.0

**Wright State University**  
Master of Science in Computer Science

Dayton, OH  
2002 GPA: 4.0

**Yanshan University**  
Bachelor of Engineering in Computer Science & Application

Qinhuangdao, P.R. China  
1997

## COMPUTER SKILLS

**Languages:** C/C++, MFC, Java, VB, HTML, XML, Perl, Awk  
**Databases:** Access, SQL Server, Oracle  
**Operating Systems:** Unix, Linux, MS Windows, MS-DOS, IRMX, pSOSystem  
**Application:** Microsoft Office, Visio, AutoCAD, Latex, Xfig, Gnuplot  
**Developing tools:** Visual Studio, Source Insight, Matlab, Glomosim, Ns-2, OPNET, Weka  
**Networking:** TCP/IP protocol stack and 802.11, 802.16 standards, socket programming

## EXPERIENCES

**Summer Intern** Microsoft(WindowsLive ID) 05/2007 – 08/2007  
Forensic Analysis Project: (1) Involved in project design (Front-end and Back-end Design); (2) Carried out performance test to help finalize design; (4) Implemented UPPI layer code to access store procedures at Configuration Database; (4) Implemented FE windows service which processes IIS log files and insert extracted information into backend database.

**Research & Teaching Assistant** University of Texas at San Antonio 08/2003 – Present  
(1) Teaching Assistant for CS2511 Computer Organization I & CS4753 Computer Architecture (lab design, lab and homework assignment grading); (2) Design and implement secure routing protocols for MANETs; (3) Set up an Ad Hoc Network testbed using Linksys WRT54G routers, including implementation of routing protocols, rebuilding and update firmware, data collection and visualization, and performance analysis. (<http://www.cs.utsa.edu/faculty/boppana/projects/WiFiSetup/aodv.xml>).

**Research & Teaching Assistant** Wright State University 01/2001 – 08/2002  
(1) Teaching Assistant for CEG790 Adv. Computer Networks (lab and homework assignment grading);  
(2) An online algorithm was presented for dynamically routing bandwidth guaranteed label switched paths (LSPs) in multiprotocol label switching (MPLS) traffic engineering;  
(3) A new integrated online algorithm for dynamically routing bandwidth guaranteed label switched paths (LSPs) in IP over Wavelength Division Multiplexing (WDM) optical networks was proposed.

**Software Engineer** Zhongxing Telecom Corporation 04/2000 – 11/2000  
Embedded switch software development: system control and alarm module. User front-end was implemented in VB and MS SQL Server. Back-end was implemented using C on RTOS: IRMX first, and then transformed to RTOS: pSoSyttem. (<http://www.zte.com.cn>)

**Software Developer** Nanjing Future Hi-Tech Company 07/1998 – 08/1999  
Budget Software: Life cycle development, including requirement analysis, software design, database design and specification, implementation using VC++6.0 &MFC & MS SQL Server, testing and documentation.

**Research Assistant & Developer** Nanjing Univ. of Aero.&Astro 09/1997 – 03/2000  
Reconstructed surface from unorganized 3-D points scanned from the surface of a product and produced triangular mesh. Implemented using VC++6.0 in AutoCAD with ARX. New version Implemented using VC++6.0&MFC based on 3D ACIS® Modeler (ACIS).

## PUBLICATIONS

- “Design and Analysis of Secure On Demand Routing Techniques for Ad Hoc Networks”, with Rajendra V. Boppana, to be submitted to *IEEE Transactions on Mobile Computing*.
- “Mitigation of Colluding Route Falsification Attacks by insider nodes in Mobile Ad Hoc Networks”, with Rajendra V. Boppana, to be submitted to *Wiley Wireless Communications and Mobile Computing*.
- “Secure Routing Techniques to Mitigate Insider Attacks in Wireless Ad Hoc Networks”, with Rajendra V. Boppana. *IEEE Wireless Hive Networks Symposium, 2007*
- “On the Impact of Noise on Mobile Ad Hoc Networks”, with Rajendra V. Boppana. *Proceedings of ACM International Wireless Communications and Mobile Computing Conference (IWCMC), 2007*
- “On Identifying Malicious Nodes in Ad Hoc Networks”, with Rajendra V. Boppana. *Proceedings of ACM International Wireless Communications and Mobile Computing Conference (IWCMC), 2007*
- “Integrated Detection and Mitigation of Colluding Attacks in Mobile Ad Hoc Networks” (extended abstract), *HotMobile 2007: The 8th IEEE Workshop on Mobile Computing Systems and Applications*.
- “On Mitigating In-band Wormhole Attacks in Mobile Ad Hoc Networks”, with Rajendra V. Boppana, to appear in *IEEE International Conferences on Communications (ICC), 2007*.
- “Energy Consumption for Multiple Object Identification System with Active RFID Tags”, with Yang Xiao, to appear in *Wiley Wireless Communications and Mobile Computing*.
- “Energy Consumption for Multiple Object Identification System with Active RFID Tags”, with Yang Xiao, in *Proceedings of IEEE Wireless Communications and Networking Conference (WCNC), 2007*.
- “Secure Routing in Mobile Ad Hoc and Sensor Networks”, with Yang Xiao, Rajendra V. Boppana, Chapter 18, *Wireless/Mobile Network Security*, Springer, 2007.
- “Security Issues in Ad hoc Networks”, with Ming Chuen (Derek) Wong, Yang Xiao, Chapter 10, *Security In Sensor Networks*, pp. 255-279, CRC Press, 2006.
- “Neighborhood Issue in Single-frame Image Super-Resolution”, with Qi Tian, Qing Xue, Nicu Sebe, Jingsheng Ma. *Proceedings of IEEE International Conference on Multimedia & Expo (ICME 2005)*.
- “A Bandwidth Guaranteed Integrated Routing and Wavelength Assignment Algorithm in IP over WDM Optical Networks” with Bin Wang and C. L. Philip Chen. *Photonic Network Communications*, Vol. 5, No. 3, pp. 227-246, May 2003, Kluwer Academic Publishers.
- “A New Bandwidth Guaranteed Routing Algorithm for MPLS Traffic Engineering”, with Bin Wang, C. L. Philip Chen. *Proceedings of IEEE International Conference on Communications (ICC'2002)*, New York, April 2002.
- “Bandwidth Guaranteed Integrated Routing and Wavelength Assignment Algorithms in IP over WDM Optical Networks”, with Bin Wang, C. L. Philip Chen. *Proceedings of SPIE Optical Networking and Communication Conference (OptiComm2002)*, Boston, July 2002.
- “Automatic Reconstruction of Surface from Dense Scattered Points”, with Liyan Zhang, Laishui Zhou, Rurong Zhou. *Journal of Software*, Vol.13, No.2, pp.249-255, China 2001.

## **PROFESSIONAL ACTIVITIES**

### **Reviewer for Conferences and Journals including:**

IEEE Transaction on Multimedia  
EURASIP Journal on Wireless Communications and Networking  
IEEE Transactions on Systems, Man and Cybernetics  
ACM Multimedia  
IEEE International Conference on Communications (ICC)  
IEEE International Conference on Multimedia & Expo (ICME)  
IEEE Global Telecommunication Conference (GLOBECOM)  
IEEE Wireless Communications and Networking Conference (WCNC)  
ACM International Workshop on Multimedia Databases (MMDB)  
ACM SIGMM International Workshop on Multimedia Information Retrieval (MIR)  
International Conference on Image and Video Retrieval (CIVR)  
International Conference on Pattern Recognition (ICPR)  
International Symposium on Visual Communication and Image Processing (VCIP)

## **AFFILIATIONS & HONORS**

- ACM Student Member (2001 – Present), IEEE Student Member (2005 – Present)
- Vice President of Chinese Student and Scholar Association at UTSA (2007 – Present)
- President of Wright State University Table Tennis Club 2001 – 2002
- Presidential Dissertation Fellowship at The University of Texas at San Antonio 2008
- Acceptance to IEEE HotMobile Doctoral Consortium 2007
- National Award in Science and Technology Progress by Ministry of Education (China), 2nd Class, 2004
- Honor graduate in Ministry of Machinery Industry (China) 1997