

Yanchao Zhao

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EDUCATION

Ph.D. Computer Science, Nanjing University, 2009 - present.

Tutor: Professor Sanglu Lu and Professor Daoxu Chen

M.A. Computer Science, Nanjing University, 2007 - 2009.

B.S. Computer Science, Nanjing University, 2003 - 2007.

RESEARCH INTERESTS

- **General:** Computer networking. In particular, Cognitive Radio Networking; Wireless Sensor Network and Wireless Mesh networks.
- **Current Focus:** Handoff optimization in wireless networks; Data Rate Adaptation and Channel Allocation in Wireless Mesh networks; Spectrum Sharing in Cognitive Radio

PUBLICATIONS

Conference Paper

- **Yanchao Zhao**, Wenzhong Li, Jue Hong, Zhuo Li, Sanglu Lu and Daoxu Chen. "Handoff Minimization in Wireless Networks: From a navigation perspective ". *IEEE Wireless Communications and Networking Conference (WCNC 2010)* , Sydney, Australia. April 2010.
- **Yanchao Zhao**, Jue Hong, Sanglu Lu and Daoxu Chen. "Research on Coverage Problem in Mobile sensor networks". *The 2nd China Wireless Sensor Network Conference (CWSN 2008)*, Chongqin, China. September 2008.

Journal Paper

- **Yanchao Zhao**, Jue Hong, Sanglu Lu and Daoxu Chen. "Research on Coverage Problem in Mobile sensor networks". *Chinese Journal of Computer Science*, Vol. 35(11A): 134-138, 2008.

RESEARCH & PROJECT EXPERIENCE

2009-present: Support Seamless Roaming in Wireless Networks

This project is aiming at supporting seamless roaming in wireless networks. Base on our testbed, we divide our efforts into two parts. We first, as conventional methods, modify the association protocol of wifi client to cutting the reconnecting time. Secondly, as a compensation, we considering decrease the

handoff frequency during the process of moving. Both navigation and association control methods are combined into two algorithms that help to minimize the handoff frequency.

2007-2009 Project: Self-Adaptive Software Aggregation Environment for Pervasive Computing

It is a project of the National High-Tech Research and Development Program of China. The project, whose target is to build a pervasive computing platform, requires a mesh network in the lower layer. I act as the team leader of this mesh network implementation. I realized a DHCP server and relays by using winpcap package. Besides, to facilitate the upper-layer task scheduling and dispatching, I also implement a network information collector, which gathers every single link's delay, bit rate and loss rate data in real time. Further, I also incorporate into the deployment of sensors (mainly consists of sunspot nodes) to collect environment data.

2003-2007 Undergraduate Projects

Tiny language compiler: Implementation for a PASCAL-like tiny language compiler with the help of two powerful tools: LEX and YACC (we use the GNU version called Flex and Bison), combining with the C language.

Simulation Software for TEC2000: TEC2000 is a experimental computer for teaching computer architecture. We designed a software to execute programs written in assemble language based on its instruction set, compiled cross assemble code into assemble code and executed new instructions which designed by micro instructions. As the main member, I designed the I/O system of assemble language and the compiler of cross assemble language.

The Development of Othello Game: I developed a highly competitive AI component, which enable human-machine game and entering the final of the Othello AI match in our department. Besides, I also develop a network component which enable the match between people through internet.

2007-present Network Management for Pernet Group

I am responsible to buildup group homepages (include Pernet and SWIM) and forum. I also buildup the firewall for our websites by taking advantage of *iptables* in Linux.

PROFESSIONAL ACTIVITIES

IEEE Student Member

- IEEE Computer Society 2009–Present.
- IEEE Communication Society 2009–Present.

External Reviewer for 2009 IEEE Global Communications Conference (GLOBECOM-2009)

External Reviewer for the 38th International Conference on Parallel Processing (ICPP-2009)

Asia Shadow PC for the 15th Annual International Conference on Mobile Computing and Networking (MOBICOM-2009)

Conferences and workshops attended:

- Mobicom' 2009, Beijing, China, Sep 15-20, 2009.
- CWSN' 2008, Chongqing, China, June 24–25, 2008.

HONORS, AWARDS, & FELLOWSHIPS

Zhenzhiwei Scholarship , Nanjing University, 2009.

Excellent Graduate Student of Nanjing University, Nanjing University, 2009.

Excellent Student Leadership of Nanjing University, 2007.

Excellent Student Leadership of Nanjing University, 2006.

People's Scholarship of Nanjing University, 2006.

People's Scholarship of Nanjing University, 2005.

Excellent Student Leadership of Nanjing University, 2005.

People's Scholarship of Nanjing University, 2004.

TEACHING ASSISTANT

COMP 22011 Data Structure (Taught by Professor Lin Shang for undergraduate student in Fall 2007).

SKILLS

English Level

TOEFL(IBT): Jun.2009 29+24+18+24(Reading, Listening, Speaking, and Writing respectively)

GRE General: Oct.2008 420+790+3.5(Verbal, Quantitative, and Analytical Writing respectively)

Programming Language

Java (4 years of continuous use), C (3 years of continuous use), C++ (1 year of continuous use), Matlab (1 year of continuous use) and some script languages including Linux shell script, ML, Perl etc.

Mathematical Background

Operational Research, Stochastic Process, Queue Theory, Combinatorics, etc.

Platform and Simulation

Windows 3.1 up to XP (Advanced knowledge), Linux 2.4/2.6 Kernels (Above average knowledge), Above average experience configuring and running Apache, MySQL, and other servers, Advance knowledge in the design and implementation of wireless networks' simulators.

Last updated: January 29, 2010