

## Curriculum Vitae

# Chunyi Peng

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## Education

2002-2005 *Master of Engineering.* *Department of Automation, Tsinghua University*

Ranked 1<sup>st</sup> out of 70 graduates in the department in 2004.

**Highest Honors** for Master Students of Tsinghua University.

**Best Master Thesis** of Tsinghua University.

1998-2002 *Bachelor of Engineering* *Department of Automation, Tsinghua University*

Ranked 1<sup>st</sup> out of 157 undergraduate students in the department.

**Highest Honors** for Undergraduate Students of Tsinghua University.

**Highest Honors** in the City of Beijing, P.R.C.

## Honors and Awards

1. Best Demo Award at *ACM Mobisys'08*, Point2Share: Intuitive and Secure File Sharing Among Mobile Phone Users, **Chunyi Peng**, Guobin Shen, Donggun Kim and Yongguang Zhang.
2. Best Demo Award at *ACM Sensys'07*, BeepBeep: A BeepBeep Ranging System on Mobile Phones, **Chunyi Peng**, Guobin Shen, Zheng Han, Yongguang Zhang, Yanlin Li and Kun Tan.
3. Best Demo Award at *ACM Mobisys'07*, MobiUS: A Together-Viewing Mobile Video Experience, Guobin Shen, Yanlin Li, **Chunyi Peng**, and Yongguang Zhang.
4. Best Master Thesis Award at Tsinghua University, 2005.
5. Graduated with **Highest Honors** of Tsinghua University, 2005.
6. Best Undergraduate Student Award, the city of Beijing, P.R. China, 2002.
7. Graduated with **Highest Honors** of Tsinghua University, 2002.
8. Graduate Scholarship-Changtong of Tsinghua University, 2003.
9. Excellent Student Scholarship of Tsinghua University, 1999-2001 (each year)
10. Second-prize Freshman scholarship of Tsinghua University, 1998.

## Research Experiences

2005-present Associate Researcher *Wireless & Networking Group, Microsoft Research Asia*

My research interests include mobile computing, wireless networks, sensor networks, P2P networks and signal processing. The major projects I participated in are listed as follows:

- Point & Connect and BeepBeep [Aug 2006 - Apr 2009]. Major contributor. The project aimed to provide high-accuracy ranging for COTS mobile devices without any infrastructure or OS/driver modification. We also propose a new user-centric device pairing scheme.

Output: ACM Mobisys'09 paper, ACM Sensys'07 paper, downloadable software, and three best demo awards.

- InfoBrokerage(SigFeed) [Dec 2005 - July 2006]. Major contributor. The project aimed to construct a user-friendly information center. Our work included measurement and modeling of question-answer(QA) systems, implementation of a user-friendly wishlist-based QA system and deployment and experimental study of such a system.

Output: Hotweb'06 paper.

2004-2005 Intern *Wireless & Networking Group, Microsoft Research Asia*

Seven-month internship, doing theoretical research on open spectrum access and dynamic channel allocation, including mathematical modeling, centralized and distributed channel assignment algorithm design and experimental evaluation.

Output: ICC'05 and MONET papers.

2002-2005 Graduate Research Assistant, Prof. Zhang Xianda *Tsinghua University*

Research on Communication Theory and Technologies for New Carrier Systems Grand Project supported by the National Science Foundation of China (NSFC). Major contributor on interference cancelation and MIMO channel estimation.

Research on Blind Source Separation (BSS) of Audio Signals Supported by Post Doctorate Foundation in cooperation with Intel Corp. China. Focus on the blind separation of convolutive mixtures.

Output: an ISNN'05 paper and two journal (IEEE SP Letters, JTUST)

## List of Publications

1. Suk-Bok Lee, Sai-Wang Tam, Ioannis Pefkianakis, Songwu Lu, Mau-Chung Chang, Chuanxiong Guo, Glenn Reinman, **Chunyi Peng**, Mishali Naik, Lixia Zhang and Jason Cong, "A Scalable Micro Wireless Interconnect Structure for CMPs", *ACM Mobicom'09*, Sep 20-25, 2009.
2. **Chunyi Peng**, Guobin Shen, Yongguang Zhang and Songwu Lu, "Point&Connect: Intention-based Device Pairing for Mobile Phone Users", *ACM Mobisys'09*, 2009.
3. Qutang Cai, Changshui Zhang, **Chunyi Peng**, "Analysis of classification margin for classification accuracy with applications", *Neurocomputing*, Vol. 72, Page 1960-1968, 2009.
4. Qutang Cai, **Chunyi Peng** and Changshui Zhang, "A Weighted Subspace Approach for Improving Bagging Performance", *2008 International Conference on Acoustic, Speech, and Signal Processing (ICASSP)*, April 2008.
5. **Chunyi Peng**, Guobin Shen, Yongguang Zhang, Yanlin Li and Kun Tan, "BeepBeep: A High Accuracy Acoustic Ranging System using COTS Mobile Devices", *ACM SenSys'07*, 2007.
6. Qutang Cai, **Chunyi Peng**, Changshui Zhang, "Analysis of Max-Min Eigenvalue of Constrained Linear Combinations of Symmetric Matrices", *International Conference on Acoustic, Speech, and Signal Processing (ICASSP)*, 2007.
7. **Chunyi Peng**, Haitao Zheng, B.Y. Zhao, "Utilization and Fairness in Spectrum Assignment for Opportunistic Spectrum Access", *ACM Mobile Networks and Applications (MONET)*, 2006.
8. **Chunyi Peng**, Zaoyang Gong, Guobin Shen, "Measurement and Modeling of A Web-based Question Answering System", *The first IEEE Workshop on Web Systems and Implementation (Hotweb'06)*, 2006.
9. Haitao Zheng, **Chunyi Peng**, "Collaboration and Fairness in Opportunistic Spectrum Access", *IEEE International Conference on Communications (ICC'05)*, May, 2005.
10. **Chunyi Peng**, Xianda Zhang, "On recursive oblique projectors", *IEEE Signal Processing Letters*, Vol. 12, No. 6, June 2005, pp:433 - 436.
11. Qutang Cai, Changshui Zhang, **Chunyi Peng**, "Learning probability density functions from marginal distributions with applications to Gaussian mixtures", *IEEE International Joint Conference on Neural Networks (IJCNN)*, July, 2005.
12. **Chunyi Peng**, Xianda Zhang, Qutang Cai, "A Block-Adaptive Subspace Method Using Oblique Projections for Blind Separation of Convolutional Mixtures", *The International Symposium on Neural Networks (ISNN)*, May, 2005.
13. **Chunyi Peng**, Xiaolong Zhu, Xianda Zhang, "Blind Separation of Convolutional Mixtures Using Oblique Projections" (in Chinese), *Journal of Tsinghua University (Science and Technology)*, Vol.25, No. 4, April 2005, pp:517-520.
14. **Chunyi Peng**, Guobin Shen and Yongguang Zhang, "BeepBeep: A High-Accuracy Acoustic-Based System for Ranging and Localization Using COTS Devices", under submission to *ACM Transactions on Embedded Computing Systems*.