

CHONG WANG

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Research Interests

- Machine learning, graphical models and information retrieval

Education

- **Princeton University, Computer Science Department**
 - PhD candidate. Advisor: Prof. David Blei Sep. 2007–present
- **Tsinghua University, Department of Automation**
 - Master of engineering with *honors*, Jan. 2006
 - Bachelor of engineering with *honors*, Jul. 2003

Work Experience

- **Machine Learning and Applied Statistics, Microsoft Research—Redmond, WA**
Jun. 2008–Aug. 2008
 - Intern. Mentors: Bo Thiesson and Chris Meek
- **Web Search and Mining Group, Microsoft Research—Beijing, China**
Apr. 2006–Aug. 2007
 - FTE, Assistant Researcher. Managers: Xing Xie and Wei-Ying Ma
- **Web Search and Mining Group, Microsoft Research—Beijing, China**
Aug. 2003–Nov. 2004
 - Intern. Mentor: Xing Xie

Awards and Honors

- King Peh Kwoh Fellowship, Princeton University, 2007
- Best Master graduate of Tsinghua University, 2006
- Best Master thesis award of Tsinghua University, 2006
- Best undergraduate of Beijing, China, 2003
- First-class scholarship, Tsinghua University, 2000–2003

Research Experience

- **Computer Science Department, Princeton University—Princeton, NJ**
Sep. 2007–present
 - Work on machine learning, especially on graphical models and approximate inference.

- Developed continuous time dynamic topic models which allows more efficient variational inference for discrete time series data.
- Developed a jointly approach for image classification and annotation.
- Co-developed a large margin training algorithm for graphical models with hidden variables.
- **Machine Learning and Applied Statistics, Microsoft Research**—Redmond, WA
Intern: Jun. 2008–Aug. 2008
 - Worked on graphical models and probabilistic clustering.
- **Web Search and Mining Group, Microsoft Research**—Beijing, China
Assistant Researcher: Apr. 2006–Aug. 2007
 - Applied graphical models to information retrieval and music.
 - Helped product groups do experiments and transferred prototypes.
 - Participated in GeoCLEF 2006, 2007, focused on geographical information retrieval.
- **Department of Automation, Tsinghua University**—Beijing, China
Research Assistant: Nov. 2004–Jan. 2006
 - Developed variational methods for canonical correlation analysis.
 - Established a unified view of two different typical methods for dimensionality reduction and density estimation.
 - Developed a term-clustering based kernel method for text classification.
- **Web Search and Mining Group, Microsoft Research**—Beijing, China
Intern: Aug. 2003–Nov. 2004
 - Did research and developed prototypes for viewing web pages on mobile devices.

Refereed Journal Publications

- Chong Wang. Variational Bayesian approach to canonical correlation analysis. *IEEE Trans. on Neural Networks*, 18(3): 905-910, 2007.
- Chong Wang and Wenyuan Wang. Links between PPCA and subspace method for complete Gaussian density estimation. *IEEE Trans. on Neural Networks*, 17(3): 789-792, 2006.
- Xing Xie, Chong Wang, Li-Qun Chen, and Wei-Ying Ma. An adaptive web page layout structure for small devices. *ACM Multimedia Systems Journal*, 11(1): 34-44, 2005.
- Hairong Lv, Wenyuan Wang, Chong Wang, and Qing Zhuo. Off-line Chinese signature verification based on support vector machines. *Pattern Recognition Letters*, 26(15): 2390-2399, 2005.

Refereed Conference Publications

- Chong Wang, David Blei, and David Heckerman. Continuous time dynamic topic models. In *Proceedings of the 24th Conference on Uncertainty in Artificial Intelligence (UAI)*, 2008.
- Rui Cai, Chao Zhang, Chong Wang, Lei Zhang, and Wei-Ying Ma. MusicSense: contextual music recommendation using emotional allocation modeling. In *Proceedings of the 15th ACM International Conference on Multimedia (ACM MM)*, 2007.

- Chong Wang, Jinggang Wang, Xing Xie, and Wei-Ying Ma. Mining geographical knowledge using location aware topic model. In *Proceedings of the 4th International Workshop on Geographic Information Retrieval*, in conjunction with ACM CIKM, 2007.
- Lu Wang, Ming Wen, Chong Wang, and Wenyuan Wang. Robust visual tracking via incremental maximum margin criterion. In *Proceedings of the 3rd International Symposium on Neural Networks (ISNN)*, 2006.
- Chong Wang and Wenyuan Wang. Using term clustering and supervised term affinity construction to boost text classification. In *Proceedings of the 9th Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD)*, 2005.
- Chong Wang, Xing Xie, Wenyuan Wang, and Wei-Ying Ma. Improving web browsing on small devices based on table classification. In *Proceedings of 5th the Pacific-Rim Conference on Multimedia (PCM)*, 2004.
- Patrick Baudisch, Xing Xie, Chong Wang, and Wei-Ying Ma. Collapse-to-Zoom: viewing web pages on small screen devices by interactively removing irrelevant content. In *Proceedings of the 17th Annual ACM Symposium on User Interface Software and Technology (UIST)*, 2004.

Professional Activities

- Reviewer for IEEE Trans. on Signal Processing, IEEE Magazine on Computing in Science & Engineering, IEEE Trans. on SMC Part B and VLDB demos.

Patents

- Four US patents pending.