

Jinyu Han

jinyuhan@gmail.com

EDUCATION

Northwestern University, Evanston, IL, USA

PhD candidate in Computer Science since September 2007

Research interest: Signal Processing, Machine perception of audio.

Advisor: Bryan Pardo (pardo@northwestern.edu)

Beijing University of Posts and Communications, Beijing, China

B.Eng. in Information Automation, June 2007.

RESEARCH EMPLOYMENT

Gracenote, Emeryville, CA, USA.

6/10 - 12/10

Intern, Media Technology Lab

Manager: Ching-Wei Chen (cwchen@gracenote.com)

- Studied the problem of extracting melody from polyphonic music.
- Designed and implemented an automatic melody extraction system.
- Studied the problem of user's music taste based on data mining technique.

Manager: Ching-Wei Chen (cwchen@gracenote.com)

Orange Lab (Beijing), France Telecom

6/06 - 7/07

Intern, Speech and language Lab

- Designed and implemented the Chinese polyphone disambiguation module in Text-to-Speech system.

Manager: Yuan Dong (yuan.dong@orange-ftgroup.com)

TEACHING ACTIVITIES

Teaching assistant, EECS 352 - Machine Perception of Music and Audio, winter 2010

- Gave lectures and weekly office hours to a class of 40 students.
- Graded homework and helped the professor to design the homework.

PUBLICATIONS

- J. Han, C. Chen, "Improving melody extraction using Probabilistic Latent Component Analysis", in Proc. IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP), 2011.
- J. Han, B. Pardo, "Reconstructing completely overlapped notes from musical mixtures", in Proc. IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP), 2011.
- Z. Duan, J. Han and B. Pardo, "Song-Level Multi-Pitch Tracking by Heavily Constrained Clustering", in Proc. IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP), 2010.
- J. Han, B. Pardo, "Improving Separation of Harmonic Sources with Iterative Estimation of Spatial Cues", in Proc. IEEE Workshop on Applications of Signal Processing to Audio and Acoustics (WASPAA), 2009.
- Z. Duan, J. Han and B. Pardo, "Harmonically Informed Multi-pitch Tracking", in Proc. International Society for Music Information Retrieval Conference (ISMIR), 2009.
- M. Skalak, J. Han, and B. Pardo, "Speeding Melody Search with Vantage Point Trees", in Proc. International Society for Music Information Retrieval Conference (ISMIR), 2008.

- B. Pardo, D. Little, R. Jiang, H. Livni, J. Han, "The VocalSearch music search engine", in Proc. ACM/IEEE-CS joint conference on Digital libraries (JCDL), 2008.
- X. Mao, Y. Dong, J. Han, H. Wang, "Inequality Maximum Entropy Classifier with Character Features for Polyphone Disambiguation in Mandarin TTS Systems", in Proc. IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP), 2007.
- X. Mao, Y. Dong, J. Han, H. Wang, "A Comparative Study of Diverse Knowledge Sources and Smoothing Techniques via Maximum Entropy for Polyphone Disambiguation in Mandarin TTS Systems", in Proc. IEEE International Conference on Natural Language Processing and Knowledge Engineering (NLP-KE), 2007

PROFESSIONAL ACTIVITIES

I have been a reviewer for the following journal and conference:

- IEEE Transaction on Audio, Speech, and Language Processing
- International Society for Music Information Retrieval Conference (ISMIR)

Participant – Multiple Fundamental Frequency Estimation & Tracking Task (MIREX 2009)

Volunteer – AAAI Conference on Artificial Intelligence, 2008

Professional Memberships:

- IEEE (Institute of Electrical and Electronics Engineers) - Signal Processing Society
- ASA (Acoustical Society of America)

AWARDS AND GRANTS

TGS Conference Travel Grant	2008 - 2010
EECS Department Conference Travel Grant	2008 - 2010
Walter P. Murphy Fellowship	2007 - 2008
Samsung Company Fellowship	2006 - 2007
Outstanding bachelor dissertation	2007
First-Class Scholarship for Academic Excellent of BUPT	2003 - 2006

OTHER SKILLS

Programming in Matlab, Java, C, C++, Perl.