

Basic Information

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Education

09/2013-Present Ph.D. Candidate in Computer Science, Shanghai Jiao Tong University GPA: 2.21/3.3
09/2009-07/2013 B.E in ACM Honored class, Computer Science, Shanghai Jiao Tong University GPA: 3.45/4.3

Skills

Programming C/C++, Python, Matlab: skilled
Java, Lua, Perl, C#, PHP: average
Working Tools HTS/HTK, Torch, TNet, CURRENT: skilled
SPTK, STRAIGHT, festival, flite: average
Languages English: score 458/710 CET6 (College English Test 6) in 2011
Working in English when interning in MSRA in China in 2012 and NII in Japan in 2014.

Research Experiences

11/2015-Present **Voice Conversion Challenge 2015**
Research Convert the 5 source speakers to 5 target speakers, each pair individually.
Description No transcripts are provided and no manual transcripts are allowed.

10/2015-Present **Chinese Song Synthesis using Commercial Music Videos DVDs**
Research Extract song of a single speaker without background music from music videos DVDs.
Description Build song synthesis system based on the extracted waves, lyrics and notations.

07/2015-Present **Research on LSTM based Speech Synthesis**
Research Investigate the duration modeling ability of DBLSTM, and develop a more controllable LSTM
Description synthesis framework for further LSTM based model adaptation.
Achievements

- We found that duration model based on DBLSTM has its advantage in limited amount of data and prepare for a paper in InterSpeech 2016.
- An LSTM synthesis framework is developed using Torch toolkit.

11/2014-02/2015 **Context Clustering in DNN based Speech Synthesis**
Research Investigate whether the implicit context clustering is the main advantage in DNN based
Description statistical speech synthesis.
Achievements

- Two methods to import context clustering information in GMM based system to DNN framework was proposed, and we found that systems with cluster information were more robust in some extreme cases.
- A paper was accepted in InterSpeech 2015.

12/2014-02/2015 **ASV Spoofing Challenge 2015**
Research Automatic Speaker Verification Spoofing and Countermeasures Challenge.
Description My main job in this challenge is to provide as many different kinds of vocoded waves as I can for validation including direct vocoding, sub-band vocoding, TTS, etc.
Achievements The team achieved the 3rd rank in the main task, and a paper was accepted in InterSpeech 2015

09/2014-11/2014 **Online Expressive Chinese Audio Book Synthesis**
Research Build GMM-HMM based speech synthesis model using online audio book data with large
Description amount of high quality waves and noisy transcriptions.
Achievements

- Crawl many online audio books and related noisy transcriptions.
- Develop a framework for automatic cleaning, segmenting, labeling and model training on the online data using ASR, VAD and TTS technique.

02/2014-08/2014 **User Feedback Learning in Speech Synthesis**
(As intern at NII in Tokyo, Japan with Prof. Junichi Yamagishi.)
Research Improve the acoustic model of a single speaker using the opinion scores of the synthesized
Description waves from multiple listeners.
Achievements We trained a simple linear regression between the acoustic features and listener opinion scores
and used global MLLR to minimize the distance between the real listener score and predicted
score of generated acoustic parameters. But the results are not good.

07/2012-01/2013 **Image re-ranking based on click data and image content information.**
(As intern at MSRA in Beijing, China with Prof. Yong Rui and Prof. Jun Yu.)
Research Re-rank the image list from Bing image search engine of a target query with the user click data
Description and image content information.
Achievements • We get predicted score list from Bing image search engine with related user click data and
content information.
• Multi-view model was build based on the click data and image similarity to re-rank the list.
• A paper was accepted in TMM 2014.

Academic Activities

2015 Conference of InterSpeech, Poster Presentation, Dresden, German

Qualification

- ISCA Student Member

Awards

2015 Transaction on Multimedia Best Paper Award
2011 Shanghai Jiao Tong University Scholarship, Class C
2010 Shanghai Jiao Tong University Scholarship, Class C

List of Published Papers

English Papers:

1. **Bo Chen**, Zhehuai Chen, Jiachen Xu, Kai Yu, "An Investigation of Context Clustering for Statistical Speech Synthesis with Deep Neural Network.", Interspeech 2015.
2. Nanxin Chen, Yanmin Qian, Heinrich Dinkel, **Bo Chen**, Kai Yu, "Robust Deep Feature for Spoofing Detection - The SJTU System for ASVspoo 2015 Challenge.", Interspeech 2015.
3. Jun Yu, Yong Rui, **Bo Chen**, "Exploiting click constraints and multi-view features for image re-ranking.", IEEE Transactions on Multimedia 2014.

Chinese Papers:

4. Kai Yu, Lu Chen, **Bo Chen**, Kai Sun and Su Zhu. "Cognitive Technology in Task-oriented Dialogue Systems - Concepts, Advances and Future.", Chinese Journal of Computers 2014.

List of Patents

1. Yu Kai, Wang Xiangran, **Chen Bo**, Xu Jiachen, Multimode Verification Code Based on HMM Based Statistical Parameter Speech Synthesis. Applied ID: 201510272044.4, Published ID: CN105047192A, Published Date: 2015-11-