



Dr. **Dong Wang** got his PhD degree at the University of Edinburgh, and worked in Oracle, IBM, and Nuance. He is now an assistant professor at the center for speech and language technologies (CSLT) at Tsinghua University. Dr. Wang's research interest covers speech processing, language processing and financial processing. He has published more than 80 academic papers in the related area, including three best paper awards. Dr. Wang plays active roles in the speech research community: he serves as the secretary in national conference of machine-man speech communication (NCMMSC) and a country representative of the mainland China in Oriental COCODA. He was the local chair of ChinaSIP 2013, special session co-chair of ISCSLP 14 and plenary talk co-chair of ISCSLP 16.

Dr. Wang was elected as an APSIPA SLA TC member in 2014, and since then he served as the secretary of the SLA TC. He has published 12 papers in APSIPA and one article in the news letter. He served reviewing about 30 papers for APSIPA, and will manage a special session on APSIPA 2016.

Dong Wang

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Research

Speech processing, language processing, Fiance processing

Activities

Secretary of APSIPA SLA track
Secretary of NCMMSC
O-COCOSDA country representative of China Mainland

Education

University of Edinburgh	2006-2010
PhD	
Tsinghua University	1999-2002
Master	
Tsinghua University	1994-1999
Batchelor	

Work Experience

Tsinghua University	2012-
Assistant Professor	
Nuance, US	2011-2012
Senior Research Scientist	
EURECOM, France	2010-2011
Post Doc Fellow	
University of Edinburgh	2006-2009
Marie Curie Fellow	
IBM China	2004-2006
Senior Software Engineer	
Oracle China	2002-2004
Technical Staff	

Publicatoinis related to APSIPA:

1. Lantian Li, Dong Wang, Xiaodong Zhang, Thomas Fang Zheng, Panshi Jin, "System Combination for Short Utterance Speaker Recognition", APSIPA 2016
2. Zhiyuan Tang, Lantian Li, Dong Wang, "Multi-task Recurrent Model for Speech and Speaker Recognition", APSIPA 2016
3. Askar Rozi, Dong Wang, Lantian Li, Thomas Fang Zheng, "Feature Transformation For Speaker Verification Under Speaking Rate Mismatch Condition", APSIPA 2016

4. Aiting Liu, Chao Xing, Yang Feng, Dong Wang, "Learning Ordered Word Representations", APSIPA 2016
5. Dong Wang, Lantian Li, Difei Tang, Qing Chen, "AP16-OL7: A Multilingual Database for Oriental Languages and A Language Recognition Baseline", APSIPA 2016
6. Zhiyuan Tang, Lantian Li, Dong Wang, "Multi-task Recurrent Model for True Multilingual Speech Recognition", APSIPA 2016
7. Lantian Li, Yiye Lin, Zhiyong Zhang, Dong Wang, "Improved Deep Speaker Feature Learning for Text-Dependent Speaker Recognition", APSIPA 2015
8. Mengyuan Zhao, Dong Wang, Zhiyong Zhang, Xuwei Zhang, "Music Removal by Denoising Autoencoder in Speech Recognition", **APSIPA 2015, Best paper**
9. Yiqiao Pan, Chao Xing, Dong Wang, "Document Classification with Spherical Word Vectors", APSIPA 2015
10. Dong Wang, Thomas Fang Zheng, "Transfer learning for speech and language processing", APSIPA 2015, invited paper
11. Jun Wang, Dong Wang, Ziwei Zhu, Thomas Fang Zheng, Frank Soong, "Discriminative Scoring for Speaker Recognition Based on I-vectors", APSIPA 2014.
12. Chao Xing, Dong Wang, Xuwei Zhang, Chao Liu, "Document Classification with Distributions of Word Vectors", APSIPA 2014.

Other publications (journal)

1. Xi Ma, Dong Wang, Javier Tejedor "Similar Word Model for Unfrequent Word Enhancement in Speech Recognition," TASLP, vol 24, no. 10, 2016.
2. Lantian Li, Dong Wang, Chenhao Zhang, Thomas Fang Zheng, "Improving Short Utterance Speaker Recognition by Modeling Speech Unit Classes", TASLP, vol. 24, no. 6, pp.1129-1139, 2016
3. Fanhu Bie, Dong Wang, Thomas Fang Zheng, "Detection and Reconstruction of Clipped Speech in Speaker Recognition", Speech Communication, Spe, 2015, vol72, pp.218-231.
4. Shi Yin, Chao Liu, Zhiyong Zhang, Yiye Lin, Dong Wang, Javier Tejedor, Thomas Fang Zheng, Yinguo Li, "Noisy Training for Deep Neural Networks in Speech Recognition", EURASIP JOURNAL ON AUDIO SPEECH AND MUSIC PROCESSING, 2015(2)

5. Javier Tejedor; Doroteo T. Toledano; Dong Wang; Simon King; Jose Colas, "Feature analysis for discriminative confidence estimation in Spoken Term Detection", computer speech and language, Computer Speech and Language, 28 (2014), pp. 1083-1114.
6. Dong Wang, Ravichander Vippera, Nick Evans, Thomas Fang Zheng, "Online Non-negative Convolutional Pattern Learning for Speech Signals", IEEE trans. on signal processing. vol.61, no.1, pp.44-56.
7. Dong Wang, Simon King, Joe Frankel, Ravichander Vippera, Nick Evans, Raphael Troncy, "Direct Posterior Confidence Estimation for Out-of-Vocabulary Spoken Term Detection", ACM Trans. on Information Systems. vol.30, no.3, 2012.
8. Dong Wang, Javier Tejedor, Simon King, Joe Frankel "Term-dependent Confidence Normalization for Out-of-Vocabulary Spoken Term Detection", Journal of Computer Science and Technology(JCST), vol.27, no.2, 2012.
9. Nick Evans, Simon Bozonnet, Dong Wang, Corinne Fredouille and Raphael Troncy, "A Comparative Study of Bottom-up and Top-down Approaches to Speaker Diarization ", IEEE Trans. on Audio, Speech and Language Processing, vol.20, no.2, 2012.
10. Javier Tejedor, Alejandro Echeverria Dong Wang, Ravichander Vippera, "Evolutionary discriminative confidence estimation for spoken term detection ", Multimedia tools and applications, no.4, 2011.
11. Dong Wang, Simon King, "Letter-to-Sound Pronunciation Prediction using Conditional Random Field", IEEE Signal Processing Letters, vol 18, no.2, February 2011 , pp 122-125
12. Dong Wang, Simon King, Joe Frankel, "Stochastic Pronunciation Modelling for Out-of-Vocabulary Term Detection", IEEE transaction on Acoustic, Speech and Language Processing, vol.18, no.8, November 2010.
13. Javier Tejedor, Dong Wang, Joe Frankel, Simon King, Jose Colas, A comparison of grapheme and phoneme-based units for spoken term detection in Spanish", Speech Communication, 60(11-12):980-991, November-December 2008.

Other publications (conference):

2016

1. Dongxu Zhang, Dong Wang, "Relation Classification: CNN or RNN?", NLPCC-ICCPOL 2016 [pdf][arXiv]
2. Dongxu Zhang, Tianyi Luo, Dong Wang, "Learning from LDA using Deep Neural Networks", NLPCC-ICCPOL 2016 [pdf][arXiv]
3. Askar Rozi, Dong Wang, Lantian Li, Thomas Fang Zheng, " Language-aware PLDA for Multilingual Speaker Recognition", OCOCOSDA 2016 (**best student paper**)[pdf]
4. Dong Wang, Zhiyuan Tang, Difei Tang, Qing Chen "OC16-CE80: A Chinese-English Mixlingual Database and A Speech Recognition Baseline", OCOCOSDA 2016 (**best paper**) [pdf]
5. Chenghui Zhao, Lantian Li, Dong Wang and April Pu, "Local Training for PLDA in Speaker Verification", OCOCOSDA 2016 [pdf]
6. Lantian Li, Dong Wang, Thomoas Fang Zheng, "Max-Margin Metric Learning for Speaker Recognition", ISCSLP 2016 [pdf][arXiv]
7. Lantian Li, Dong Wang, Thomas Fang Zheng, "Binary Speaker Embedding", ISCSLP 2016 [pdf][arXiv]
8. Lantian Li, Dong Wang, Xiaodong Zhang, Thomas Fang Zheng, Panshi Jin, "System Combination for Short Utterance Speaker Recognition", APSIPA 2016 [pdf]
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13. Zhiyuan Tang, Lantian Li, Dong Wang, "Multi-task Recurrent Model for True Multilingual Speech Recognition", APSIPA 2016 [pdf]

14. Qinxin Wang, Tianyi Luo, Dong Wang, "Can Machine Generate Traditional Chinese Poetry? A Feigenbaum Test", BICS 2016 [pdf]
 15. Dong Wang, Qiang Zhou, Amir Hussian, "Deep and Sparse Learning in Speech and Language Processing: An Overview", BICS 2016 [pdf]
 16. Qixin Wang, Tianyi Luo, Dong Wang, Chao Xing, "Chinese Song Iambics Generation with Neural Attention-based Model", IJCAI 2016 [arXiv]
 17. Mian Wang and Dong Wang, "VMF-SNE: EMBEDDING FOR SPHERICAL DATA", ICASSP 2016[arXiv]
 18. Dong Wang, Chao Liu, Zhiyuan Tang, Zhiyong Zhang, Mengyuan Zhao, "Recurrent Neural Network Training with Dark Knowledge Transfer", ICASSP 2016[arxiv]
- 2015
19. Lantian Li, Yiye Lin, Zhiyong Zhang, Dong Wang, "Improved Deep Speaker Feature Learning for Text-Dependent Speaker Recognition", APSIPA 2015, best paper[pdf][arxiv]
 20. Mengyuan Zhao, Dong Wang, Zhiyong Zhang, Xuewei Zhang, "Music Removal by Denoising Autoencoder in Speech Recognition", APSIPA 2015 (**best paper**)[pdf]
 21. Yiqiao Pan, Chao Xing, Dong Wang, "Document Classification with Spherical Word Vectors", APSIPA 2015[pdf]
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 23. Tianyi Luo, Dong Wang, Yiqiao Pan, Rong Liu, "Stochastic Top-k ListNet", EMNLP 2015[pdf]
 24. Askar Rouze, Dong Wang, Zhiyong Zhang, Thomas Fang Zheng, "AN OPEN/FREE DATABASE AND BENCHMARK FOR UYGHUR SPEAKER RECOGNITION", O-COCOSDA 2015[pdf]
 25. Askar Rouze, Shi Yin, Zhiyong Zhang, Dong Wang, Askar Humdulla, Fang Zheng, "THUYG THUYG-20: A free Uyghur Speech Database", NCMSSC 2015[pdf]
 26. Xi Ma, Xiaoxi Wang, Dong Wang, "Recognize Foreign Low-Frequency Words with Similar Pairs", interspeech 2015 [pdf][poster]

27. Xiangyu Zeng, Shi Yin, Dong Wang, Zhiyong Zhang, "Learning Speech Rate in Speech Recognition", interspeech 2015 [pdf][poster]
28. Dongxu Zhang, Dong Wang, Rong Liu, "Joint Semantic Relevance Learning with Text Data and Graph Knowledge", ACL 2015, workshop CVSC. [pdf]
29. Xi Ma, Xiaoxi Wang, Dong Wang, Low-Frequency Word Enhancement with Similar Pairs in Speech Recognition, ChinaSIP 2015. [pdf]
30. Rozi Askar, Dong Wang, Fanhu Bie, Jun Wang, Thomas Fang Zheng, "CROSS-LINGUAL SPEAKER VERIFICATION BASED ON LINEAR TRANSFORM", ChinaSIP 2015 [pdf]
31. Chao Xing, Dong Wang, Chao Liu, Yiye Lin, "Normalized Word Embedding and Orthogonal Transform for Bilingual Word Translation", NAACL 2015. [pdf]
32. Xuwei Zhang, Yiye Lin, Dong Wang, "LASSO-BASED REVERBERATION SUPPRESSION IN AUTOMATIC SPEECH RECOGNITION", ICASSP 2015. [pdf]

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37. Fanghu Bie, Dong Wang, Thomas Fang Zheng, Research on Truncated Speech in Speaker Verification, ISCSLP 2014 (in Chinese)[pdf]
38. Rong Liu, Dong Wang, Chao Xing, Document classification based on word vectors, ISCSLP 2014 (in Chinese).[pdf]
39. Chao Liu, Dong Wang, Zhiyong Zhang, "Pruning Deep Neural Networks by Optimal Brain Damage", Interspeech 2014.[pdf]

40. Fanhu Bie, Jun Wang, Dong Wang, Thomas Fang Zheng, "BLOCK-WISE TRAINING FOR I-VECTOR", ChinaSIP 2014[[pdf](#)]
41. Fanhu Bie, Dong Wang, Thomas Fang Zheng, Ruxin Chen, "Emotional speaker verification with linear adaptation", ChinaSIP 2014[[pdf](#)]
42. Xiangtao Meng, Chao Liu, Zhiyong Zhang, Dong Wang, "NOISY TRAINING FOR DEEP NEURAL NETWORKS", ChinaSIP2014.[[pdf](#)]

2013

43. Fanhu Bie, Dong Wang, Thomas Fang Zheng, Javier Tejedor, Ruxin Chen, "Emotional Adaptive Training for Speaker Verification", APSIPA 2013.[[pdf](#)]
44. Jun Wang, Dong Wang, Xiaojun Wu, Thomas Fang Zheng and Javier Tejedor, "Sequential Model Adaptation for Speaker Verification", Interspeech 2013.[[pdf](#)]
45. Jun Qi, Dong Wang, Ji Xu and Javier Tejedor, "Bottleneck Features based on Gammatone Frequency Cepstral Coefficients", Interspeech 2013.[[pdf](#)]
46. Jun Qi, Dong Wang and Javier Tejedor, "Subspace Models for Bottleneck Features", Interspeech 2013.[[pdf](#)]
47. Jun Wang, Dong Wang, Xiaojun Wu, Thomas Fang Zheng, "SEQUENTIAL UBM ADAPTATION FOR SPEAKER VERIFICATION", ChinaSip 2013.[[pdf](#)]
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49. Jun Qi, Dong Wang, Yi Jiang, Runsheng Liu "AUDITORY FEATURES BASED ON GAMMATONE FILTERS FOR ROBUST SPEECH RECOGNITION",ISCAS13.[[pdf](#)]

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50. Dong Wang, Javier Tejedor "Heterogeneous convolutive non-negative sparse coding",interspeech 2012.[[pdf](#)]
51. Chao Liu, Dong Wang "N-gram FST indexing for spoken term detection",interspeech 2012.[[pdf](#)]

52. Ravichander Vipperla, Juergen Geiger, Simon Bozonnet, Dong Wang, Nicholas Evans, Bjoern Schuller, Gerhard Rigoll, "Speech overlap detection and attribution using convolutive non-negative sparse coding", ICASSP 2012.[pdf]

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53. Dong Wang, Ravichander Vipperla, Nick Evans, "Parallel and Hierarchical Decision Making for Sparse Coding in Speech Recognition", Interspeech 2011. [pdf]

54. Dong Wang, Ravichander Vipperla, Nick Evans, "Online Pattern Learning for Convolutive Non-Negative Sparse Coding", Interspeech 2011.[pdf]

55. Simon Bozonnet, Dong Wang, Nicholas Evans and Raphael Troncy, "LINGUISTIC INFLUENCES ON BOTTOM-UP AND TOP-DOWN CLUSTERING FOR SPEAKER DIARIZATION,", ICASSP 2011.[pdf]

56. Ravichander Vipperla, Simon Bozonnet, Dong Wang, Nick Evans "Robust Speech Recognition in Multi-source Noise Environments Using Convolutive Non-negative Matrix Factorization", Interspeech 2011.[pdf]

57. Wang, Dong; Evans, Nicholas W D; Troncy, Raphaë King, Simon, "HANDLING OVERLAPS IN SPOKEN TERM DETECTION", ICASSP2011.[pdf]

58. Javier Tejedor, Alejandro Echeverria and Dong Wang, "An Evolutionary Confidence Estimation for Spoken Term Detection", CBMI, 2011.[pdf]

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59. Dong Wang, Simon King, Nick Evans, Raphael Troncy,"Direct Posterior Confidence For Out-of-Vocabulary Spoken Term Detection ", ACM SSCS 2010.[pdf]

60. Javier Tejedor, Doroteo Torre , Miguel Bautista, Simon King, Dong Wang, Jose Colas, "Augmented set of features for confidence estimation in spoken term detection", Interspeech 2010. (ISTP/CPCI-S) [pdf]

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64. Dong Wang, Simon King, Joe Frankel, Peter Bell, "Stochastic Pronunciation Modelling and Soft Match for Out-of-Vocabulary Spoken Term Detection", ICASSP'10, Dallas, Texas, US, 2010. (EI/ISTP/CPCI-S)[pdf]

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65. Javier Tejedor, Dong Wang, Joe Frankel, Simon King, Jose Colas, "A Posterior Probability-based System Hybridisation and Combination for Spoken Term Detection", Interspeech 2009 (ISTP/CPCI-S:000276842801062).[pdf]
66. Dong Wang, Joe Frankel, Simon King, Peter Bell, "Term-Dependent Confidence for Spoken Term Detection", Interspeech 2009(ISTP/CPCI-S:000276842801067).[pdf]
67. Dong Wang, Joe Frankel, Simon King, "Stochastic Pronunciation Modelling for Spoken Term Detection", Interspeech 2009(ISTP/CPCI-S:000276842801064).[pdf]
68. Dong Wang, Javier Tejedor, Joe Frankel, Simon King, "Posterior-based confidence measures for spoken term detection", ICASSP09, Taiwan (ISTP/CPCI-S:000268919202297, EI:20093912339394)[pdf]

2008

69. Joe Frankel, Dong Wang, Simon King, "Growing bottleneck features for tandem ASR", Interspeech 08, Brisbane, Australia, September, 2008, pp.1549 (ISTP/CPCI-S:000277026100414).[pdf]
70. Dong Wang, Ivan Himawan, Joe Frankel, Simon King, "A Posterior Approach for Microphone Array Based Speech Recognition", Interspeech 08, Brisbane, Australia, September, 2008, pp.996-999 (ISTP/CPCI-S:000277026100268).[pdf]

71. Dong Wang, Joe Frankel, Javier Tejedor, Simon King, "A Comparison of Phone and Grapheme-based Spoken Term Detection", ICASSP 2008, pages 4969-4972, Las Vegas, US, (ISTP/CPCI-S:000257456703226, EI:20083811562405)[pdf]