

SHABNAM GHAFFARZADEGAN

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EDUCATION

- University of Texas at Dallas, Richardson, TX** Jan.2013-Present
Advisor: John H. L. Hansen, Ph.D.
Research Topic: Automatic Speech Recognition
GPA: 4.0/4.0
- Amirkabir University of Technology, Tehran, Iran** Sep.2009-Jan.2012
Master of Science in Electrical Engineering
Research Topic: Blind Source Separation and Localization
GPA: 18/20
- Amirkabir University of Technology, Tehran, Iran** Sep.2005-Jul.2009
Bachelor of Science in Electrical Engineering
GPA: 17.63/20

RESEARCH INTEREST

Robust Speech Recognition
Robust feature extraction front-ends
Audio, speech and Language Processing
Deep learning in speech recognition
Blind Source Separation

EXPERIENCE

- University of Texas at Dallas, Richardson, TX** Jan.2013-Present
Research Assistant
- Proposing new feature and model based strategies for robust speech recognition in mismatched conditions specifically for whispered speech recognition task.
 - Using Automatic speech recognition to improve speech intelligibility under reverberant environments in cochlear implants.
- Amirkabir University of Technology, Tehran, Iran** Jan.2011-Jun.2011
Teaching Assistant, Digital Design
- Teach review sessions every week to over 40 students on average.
 - Host weekly TA hours to answer students' questions and provide guidance.
 - Grade homework and quizzes.
- Amirkabir University of Technology, Tehran, Iran** Sep.2010-Jan.2011
Lab Assistant, Electricity laboratory
- Instruct students through experiments of lab sessions averaging twelve students each.

SKILLS

Electrical Engineering Softwares: KALDI, SPHINX, MATLAB, LabVIEW
Programming Language: Python, Theano, Perl, C++
Publishing: MS word, Latex, bibtex
Operating Systems: Windows, Linux.

PROJECTS

Convolutional Blind source Separation with the application of Sound Source Localization,
Amirkabir University of Technology, Jan. 2012, M.S. Thesis.
Speech Recognition System for SAMSUNG Mobile Devices. 2013 - 2014.

HONORS

Top 20 % among M.Sc. students in the Electrical Engineering department of Amirkabir University, Winter 2012.

Admitted for M.Sc. studies at Amirkabir University without taking the requisite entrance examination, Fall 2009.

Top 20 % among 120 students in the Electrical Engineering department of Amirkabir University, Spring 2009.

PUBLICATIONS

Conference Proceedings:

Ghaffarzadegan, S., Boril, H., Hansen, J. H. L., “UT-VOCAL EFFORT II: Analysis and Constrained-Lexicon Recognition of Whispered Speech,” in IEEE ICASSP’14, Florence, Italy, May 4-9.

Ghaffarzadegan S., Boril, H., and Hansen J. H. L., “Model and Feature Based Compensation for Whispered Speech Recognition,” in INTERSPEECH 2014, Singapore, Sept 2014, pp. 2420-2424.

Ghaffarzadegan S., Boril, H., and Hansen J. H. L., “Generative Modeling of Pseudo-Target Domain Adaptation Samples for Whispered Speech Recognition,” in IEEE ICASSP 2015, Brisbane, Australia, April 2015.

Hazrati O., **Ghaffarzadegan S.**, and Hansen J. H. L., “Leveraging Automatic Speech Recognition in Cochlear Implants for Improved Speech Ineligibility under Reverberation,” in IEEE ICASSP 2015, Brisbane, Australia, April 2015.

Journal Articles:

Mirsamadi S., **Ghaffarzaegan S.**, Sheikhzadeh H., Ahadi S., Rezaie A., “Efficient Frequency Domain Implementation of Noncausal Multichannel Blind Deconvolution for Convolutional Mixtures of Speech,” IEEE Transactions on Audio, Speech & Language Processing 20(8): 2365-2377 (2012).

COURSES

Digital Signal processing (I and II)
Random Processes
Detection and Estimation
Speech and Speaker Recognition

Deep Neural Networks
Machine Learning
Hardware Design and Coding for TI DSP Processors

REFERENCES

Dr. John H.L. Hansen, Advisor

Associate Dean for Research

Electrical Engineering Department, University of Texas at Dallas, TX, USA

Email: john.hansen@utdallas.edu

Dr. Carlos Busso

Assistant Professor

Electrical Engineering Department, University of Texas at Dallas, TX, USA

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Dr. Hynek Boril

Assistant Research Professor

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