Ashutosh Pandey

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RESEARCH INTERESTS

Speech enhancement and separation, speech dereverberation, speaker separation, deep learning

EDUCATION

Ph.D. student, Computer Science and Engineering The Ohio State University (OSU), Columbus, OH, USA August 2016 - Present

Advisor: Prof. DeLiang Wang

GPA: 4.0/4.0

B.Tech, Electronics and Communication Engineering August 2011 - June 2015 Indian Institute of Technology Guwahati, Guwahati, Assam, India

Thesis: Significance of Glottal Activity Detection for Speaker Verification in Degraded

and Limited Data Condition Advisor: Prof. S.R.M. Prasanna

GPA: 8.92/10.0

PUBLICATIONS

- [6] **Ashutosh Pandey** and DeLiang Wang, "Exploring Deep Complex Networks for Complex Spectrogram Enhancement", in *ICASSP*, 2019, pp. 6885-6889.
- [5] **Ashutosh Pandey** and DeLiang Wang, "TCNN: Temporal Convolutional Neural Network for Real-Time Speech Enhancement in the Time Domain", in *proceedings of ICASSP*, 2019, pp. 6875-6879.
- [4] **Ashutosh Pandey** and DeLiang Wang, "A New Framework for CNN Based Speech Enhancement in the Time Domain", in *IEEE/ACM Transactions on Audio, Speech*, and Language Processing, vol. 27, no. 7, pp. 1179-1188, 2019.
- [3] **Ashutosh Pandey** and DeLiang Wang, "A New Framework for Supervised Speech Enhancement in the Time Domain", in *proceedings of INTERSPEECH*, 2018, pp. 1136-1140.
- [2] **Ashutosh Pandey** and DeLiang Wang, "On Adversarial Training and Loss Functions for Speech Enhancement", in *proceedings of ICASSP*, 2018, pp. 5414-5418.
- [1] **Ashutosh Pandey**, Rohan Kumar Das, Nagraj Adiga, Naresh Gupta and S R Mahadeva Prasanna, "Significance of Glottal Activity Detection for Speaker Verification in Degraded and Limited Data Condition", in *proceedings of TENCON*, 2015, pp. 1-6.

SUBMITTED PAPERS

- [2] **Ashutosh Pandey** and DeLiang Wang, "On Cross-Corpus Generalization of Deep Learning Based Speech Enhancement", submitted in *ICASSP*, 2020
- [1] **Ashutosh Pandey** and DeLiang Wang, "Densely Connected Neural Network with Dilated Convolutions for Real-Time Speech Enhancement in the Time Domain", submitted in ICASSP, 2020

RESEARCH EXPERIENCES

Reserach Internship

May 2019 - August 2019

Siri Understanding, Apple Inc., Cupertino, California, USA

 \bullet Acoustic modeling for automatic speech recognition

Graduate Research Associate

August 2017 - present

Perception and Neurodynamics Laboratory (PNL), The Ohio State University, Columbus, OH, USA

- Speech Enhancement
- Speech Dereverberation
- Speaker Separation

Research Engineer

June 2015 - June 2016

Aspiring Minds Assessment Pvt Limited

- Natural Language Processing
- Machine Learning

Research Intern

May 2014 - July 2014

University of Alberta, Edmonton, Alberta, Canada

- Hardware simulation of gene regulatory networks (GRNs)
- Simulink and Modelsim

B.Tech Thesis

August 2014 - April 2015

Indian Institute of Technology Guwahati, Assam, India

• Speaker verification

SILLES& I COLS I you

SKILLS&TOOLS Python, C++, TensorFlow, PyTorch, Keras, MATLAB

SERVICES Reviewe

- IEEE/ACM Transactions on Audio, Speech, and Language Processing
- AAAI Conference on Artificial Intelligence