VIET ANH TRINH

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Education

2016 - Present   Ph.D. in Computer Science, The City University of New York, US
- Research interest: Machine Learning, Speech and Language Processing
- Advisor: Professor Michael I Mandel

2003 - 2008   B.S. in Electronics and Telecommunications, Hanoi University of Science and Technology, Viet Nam

Technical Skills

Python, Matlab, C, C++, PHP, Java, Visual Basic, R, MySQL, HTML
Tensorflow, PyTorch, Keras, Kaldi, NLTK, Moses, Message Passing Interface

Publications

Conference   V. A. Trinh, B. McFee, and M. I. Mandel, "Bubble cooperative networks for identifying important speech cues," in *Proceedings of Interspeech*, 2018.

A. R. Syed, V. A. Trinh, and M. I. Mandel, "Concatenative resynthesis with improved training signals for speech enhancement," in *Proceedings of Interspeech*, 2018.

Research experience

2017   Bubble cooperative networks for identifying important speech cues
- Developed a network consisting of a generator (Long short-term memory network-LSTM) and a discriminator (LSTM and multilayer perceptron) to identify important time-frequency regions of speech
- The predicted masks show patterns that are similar to analyses derived from human listening tests, but with better generalization and less context-dependence than previous approaches

2017   Concatenative analysis-by-synthesis
- Utilized pitch and intensity information to improve the performance of a feed-forward neural network unit-selection in a concatenative speech synthesizer system. This system aims to produce a high-quality clean speech from noisy speech for the task of source separation and speech enhancement

2016   Multi-channel speech enhancement
- Reviewed literature and deployed a baseline method, which estimates noise covariance matrix for the beamforming to improve far-field speech recognition

2016 - 2018   Class Projects
- Image classification: Applied convolutional neural network to classify images on CIFAR-10 dataset

- Grammatical error correction: Used a recurrent neural network encoder-decoder and a multilayer convolutional encoder-decoder neural network to correct English grammar errors on the CoNLL-2014 shared task
- Cancer classification and clustering: Applied random forest, feed forward network, K-means and agglomerative clustering on a cancer dataset
- Music composer classification: Utilized support vector machines, logistic regression, K-Nearest neighbors to recognize composer of a music piece
- Traveling salesman: Used parallel genetic algorithm to find the shortest path that covers all the cities

Work experience

2016 - Present **Research Foundation of the City University of New York**, Research Assistant, US
- Worked with my advisor in three projects: Bubble cooperative networks, multi-channel speech enhancement and concatenative analysis-by-synthesis

2011 - 2016 **Texas Instruments(TI)** Technical Business Development Engineer, Vietnam
- Managed TI North Vietnam sale and increased revenue by 250% in 2012, 27% in 2013, 69% in 2014, 150% in 2015 and 30% in 2016
- Conducted bi-weekly review with distributors: Avnet, Arrow, SS, WT and WPI to achieve sale targets
- Recommended TI solutions and products (integrated circuit) to build electronic devices: smart phone, telecom base station, set top box, smart home devices, car GPS tracking and toy robots
- Received reward letter from TI Asia President for achievement in 2016

2008 - 2011 **Viettel Technologies**, Technical Team Leader, Vietnam
- Led team to build up and propose video conferencing and network solutions to customers