

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

- 2018 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

2019	Amazon , Applied Scientist Intern, US
2016 - Present	Research Foundation of the City University of New York , Research Assistant, US <ul style="list-style-type: none"> • 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 <ul style="list-style-type: none"> • 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 <ul style="list-style-type: none"> • Led team to build up and propose video conferencing and network solutions to customers