VIET ANH TRINH
vtrinh@gradcenter.cuny.edu | 551-214-6767 | tvanh512 (Skype) | New York
http://trinhvietanh.com | https://github.com/tvanh512
https://www.linkedin.com/in/trinhvietanh/

Education

2016 - Present — Ph.D. in Computer Science, The Graduate Center, The City University of New York (CUNY), US

- Research interests: Machine Learning, Speech and Language Processing and Artificial Intelligence
- 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
PyTorch, Tensorflow, 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

2019 — Directly comparing the listening strategies of humans and machines

- Compared human listeners with automatic speech recognitions (ASR) in terms of their strategies for recognizing speech in noise
- ASR (Kaldi): time-delay neural network - long short-term memory networks (TDNN-LSTM) and Gaussian mixture model - hidden Markov models (GMM-HMM) acoustic models

2019 — Grammatical Error Correction

- Implemented a multilayer convolutional encoder-decoder neural network model and augmented the available training data, using the approach of minimally-augmented grammatical error correction.

2018 — Bubble cooperative networks for identifying important speech cues

- Developed a network consisting of a generator (LSTM) and a discriminator (LSTM) 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

Work experience

2019 **Amazon**, Applied Scientist Intern, US

- New project - Non-Disclosure Agreement

2016 - Present **Research Foundation - CUNY**, 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

Related Courses

Theoretical deep learning (Princeton University), artificial intelligence, machine learning, deep learning, natural language processing, speech and audio understanding, algorithms, stochastic optimization, graph based analysis of social networks, big data and data mining.

Service

Subreviewer: International Conference on Acoustics, Speech and Signal Processing (ICASSP) 2018 and 2020, International Conference on Learning Representations (ICLR) 2019, International Speech Communication Association (Interspeech) 2019, Neural Information Processing Systems (NeurIPS) 2018, Association for the Advancement of Artificial Intelligence (AAAI) 2018.