

Yang, Mu

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EDUCATION

- **Texas A&M University** (College Station, U.S.) Aug 2020 - present
 - Ph.D. in Computer Science (in progress) **GPA: 4.0/4.0**
- **University of Southern California** (Los Angeles, U.S.) Aug 2017 - May 2019
 - M.S. in Electrical Engineering **GPA: 3.73/4.0**
- **Chongqing University** (Chongqing, China) Sept 2013 - Jun 2017
 - B.Eng. in Communication Engineering **GPA: 3.63/4.0**
- **National Sun Yat-sen University** (Kaohsiung City, Taiwan) Feb 2016 - Jun 2016
 - Exchange Program **GPA: 4.17/4.3**

PUBLICATIONS

- **A CNN-based active learning framework to identify mycobacteria in digitized Ziehl-Neelsen stained human tissues**
Mu Yang, Karolina Nurzynska, Ann E. Walts, Arkadiusz Gertych
Computerized Medical Imaging and Graphics, 2020.
- **Biomedical Event Extraction with Hierarchical Knowledge Graphs**
Kung-Hsiang Huang, Mu Yang, Nanyun Peng
EMNLP (findings), 2020.
- **Spoken Language Intent Detection using Confusion2Vec**
Mu Yang*, Prashanth Gurunath Shivakumar*, Panayiotis Georgiou
Interspeech, 2019.
- **Deep Structured Neural Network for Event Temporal Relation Extraction**
Rujun Han*, I-Hung Hsu*, Mu Yang, Aram Galstyan, Ralph Weischedel, Nanyun Peng
CoNLL, 2019.

WORK EXPERIENCE

- **Resource Employee** (USC Information Sciences Institute, LA, U.S.) Aug 2019 - Present
Plus Lab, Supervisor: Prof. Nanyun (Violet) Peng
 - NLP projects including Event Extraction and Event Temporal Relation Extraction.
- **Biomedical Image Processing R&D Intern** (Cedars-Sinai Medical Center, LA, U.S.) May 2018 - Oct 2018
Bioimage Informatics Lab, Supervisor: Dr. Arkadiusz Gertych
 - Develop data processing and CNN model pipelines to perform TB detection on digital slides of human tissue.

SELECTED PROJECTS

- **Lyrics Dataset Collection, Cleaning and Genre Classification** (USC, U.S.) Oct 2018 - Nov 2018
 - Web crawled lyrics using the metadata returned by iTunes search API, including song name, artist, genre.
 - Collected ~14k lyrics for 8 different genre labels after data cleaning.
 - Performed classification using models including Naïve Bayes, SVM, Bidirectional LSTM.
- **WaveNet-based Singing Voice Synthesis** (USC, U.S.) Aug 2018 - Nov 2018
 - Collected isolated vocal tracks and employed Gentle to obtain time-aligned phonetic transcripts.
 - Trained WaveNet-based Timbre model to predict MFSC and Aperiodicity parameters providing control inputs including singer identity, F0, phoneme identity, etc.
 - Fed predicted MFSC and Aperiodicity coefficients and true F0 into WORLD Vocoder to synthesize audio.
- **DNN-based Acoustic Model and ASR Training** (USC, U.S.) Oct 2018
 - Trained a DNN Acoustic Model(AM) for audio-to-phoneme prediction on force aligned TED-LIUM dataset.
 - Created a dictionary and encoded a Language Model(LM) for a small piece of text.
 - Used Kaldi toolkit to train a complete ASR based on the AM and LM, ran decoding for self-spoken recordings.
- **Parallel second-order filter equalizer design for loudspeaker-room correction** (USC, U.S.) May 2018
 - Implemented second-order filter based equalizers in Matlab with different target frequency responses.

- Calibrated Room Impulse Responses from multiple databases with the equalizers.
- Applied equalizers on audios and asked 21 people to give preference on un-equalized and equalized audios.
- **Psychoacoustics Simulation and Validation** (USC, U.S.) Mar 2018
 - Simulated binaural localization using HRTFs in Matlab. Analyzed the effect of Cone of Confusion by hearing test.
 - Designed hearing test for Weber's Law validation experiment using successive tones and white noise.
- **Faster-RCNN for Pedestrian Detection in Videos** (CQU, China) Feb 2017 - Jun 2017
 - Trained a Faster-RCNN framework on Caltech and VOC pedestrian dataset.
 - Generated bounding boxes marking pedestrians in videos.

ACTIVITY & AWARDS

- Grader of EE483(Signal Processing) at USC Aug 2018 - May 2019
- National Scholarship of China (top 1%) Oct 2015
- Outstanding Student Scholarship at CQU, consecutive Apr.2014 - Mar.2016
- Meritorious Winner, 2016 US Interdisciplinary Contest In Modeling(ICM) Feb.2016

SKILLS

- **Programming language:** Python, Unix Shell, Matlab, C/C++, Java.
- **Technical tools:** Pytorch, Tensorflow, Keras, Kaldi, Vim, Git, Audacity.