

YOONHYUNG LEE

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RESEARCH INTERESTS

I am a 5th-year Ph.D. candidate in the Machine Intelligence Lab at Seoul National University under Professor Kyomin Jung's guidance. I have conducted research primarily on Text-to-Speech (TTS), focusing on aligning text and speech modalities and separating linguistic information and other prosodic information such as pitch and energy. My current research interests lie in searching for the linguistic information in a speech for Textless-NLP (e.g., speech translation), which will bring people from all over the world closer. In addition, I'm also doing research on incremental text-to-speech synthesis.

EDUCATION

Ph.D. Candidate, Electrical and Computer Engineering, Seoul National University, 2019.03 – Present, Machine Intelligence Laboratory (Advisor: Kyomin Jung)

B.S., Electrical and Computer Engineering, Seoul National University, 2012.02-2019.

INDUSTRY EXPERIENCE

SAMSUNG ELECTRONICS, SEOUL, KOREA, JAN. 2018 ~ FEB. 2018

As an Internship program, I worked at advanced CP Lab in Samsung Electronics IT & Mobile Communications division.

NCSoft SPEECH AI LAB, PANGYO, KOREA, JUL. 2021 ~ AUG. 2021

As an Internship program, I worked at Speech AI Lab in NCSoft, and I researched about controlling expressiveness in Text-to-Speech.

PUBLICATIONS

- **Yoonhyung Lee**, Jinhyeok Yang, and Kyomin Jung, VarianceFlow: High-quality and Controllable Text-to-Speech Using Variance Information via Normalizing Flow, ICASSP 2022.
- **Yoonhyung Lee**, Joongbo Shin, and Kyomin Jung, Bidirectional Variational Inference for Non-Autoregressive Text-to-Speech, International Conference on Learning Representation (ICLR) 2021.
- **Yoonhyung Lee**, Seunghyun Yoon, and Kyomin Jung, Multimodal Speech Emotion Recognition Using Cross Attention with Aligned Audio and Text, Interspeech 2020.
- Joongbo Shin, **Yoonhyung Lee**, Seunghyun Yoon, and Kyomin Jung, Fast and Accurate Deep Bidirectional Language Representations for Unsupervised Learning, Annual Meeting of the Association for Computational Linguistics (ACL) 2020.
- Joongbo Shin, **Yoonhyung Lee** and Kyomin Jung, Effective Sentence Scoring Method Using BERT for Speech Recognition, Asian Conference on Machine Learning (ACML) 2019.
- **Yoonhyung Lee**, Yanghoon Kim, and Kyomin Jung, MILAB at SemEval-2019 Task 3: Multi-View Turn-by-Turn Model for Context-Aware Sentiment Analysis, SemEval@NAACL-HLT 2019.
- Sungho Joo, **Yoonhyung Lee**, and Kyomin Jung, Emotional Text-to-Speech with Variational Autoencoder using a Multimodal Gaussian Prior, Korea Computer Congress (KCC) 2021. **(Top 10% of the accepted papers)**
- Sungyoon Kim, Joongbo Shin, **Yoonhyung Lee**, and Kyomin Jung, Improving Data Augmentation in cGANS by Feature Vector Diversification, Korea Computer Congress (KCC) 2020.

SCHOLARSHIPS

YOULCHON AI STAR SCHOLARSHIPS, SEOUL, KOREA, JUL. 2022

Granted by Nongsim Youlchon Foundation

SAMSUNG ELECTRONICS, SEOUL, KOREA, JUL. 2018 ~ DEC. 2018

As a research scholarship student, I did a project to build an IoT chatbot using deep learning.

REVIEWER

NeurIPS 2021 reviewer / ICLR 2022 reviewer

SKILLS

- Deep Learning Libraries: TensorFlow, Pytorch
- Programming Languages: Python, C++, JAVA
- Languages: Korean (Native), English (Intermediate)