# YOONHYUNG LEE

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## RESEARCH INTERESTS

I am a 4th-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 to achieve the goal of Textless-NLP (e.g., speech translation), which will bring people from all over the world closer.

## **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**

- · Lee, Y., Yang, J., Jung, K. (2022) VarianceFlow: High-quality and Controllable Text-to-Speech Using Variance Information via Normalizing Flow (ICASSP) 2022.
- · Lee, Y., Shin, J., Jung, K. (2021) Bidirectional Variational Inference for Non-Autoregressive Text-to-Speech. International Conference on Learning Representation (ICLR) 2021.
- · Lee, Y., Yoon, S., Jung, K. (2020) Multimodal Speech Emotion Recognition Using Cross Attention with Aligned Audio and Text. Proc. Interspeech 2020, 2717-2721, DOI: 10.21437/Interspeech.2020-2312.
- · Shin, J., Lee, Y., Yoon, S., & Jung, K. (2020). Fast and Accurate Deep Bidirectional Language Representations for Unsupervised Learning. ACL.
- · Shin, J., Lee, Y. & Jung, K.. (2019). Effective Sentence Scoring Method Using BERT for Speech Recognition. Proceedings of The Eleventh Asian Conference on Machine Learning, in PMLR 101:1081-1093
- · Lee, Y., Kim, Y., & Jung, K. (2019). MILAB at SemEval-2019 Task 3: Multi-View Turn-by-Turn Model for Context-Aware Sentiment Analysis. SemEval@NAACL-HLT.
- ·주성호, 이윤형, 정교민 (2021). 멀티모달 가우시안 분포 기반 VAE 를 활용한 감정표현 음성합성.한국정보과학회 학술발표논문집, 573-575 (우수논문상, Top 10% of the accepted papers)
- · 김성윤, 신중보, 이윤형, 정교민. (2020). 특징 벡터 다양화를 통한 cGANs 의 데이터 증강 개선 연구. 한국정보과학회 학술발표논문집, 1617-1619.

## **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)