Haeri Kim

✉ haeri.kim1108@gmail.com | 🌐 haeri-kim1108.github.io | 🔗 Haeri Kim | ▪ +82 10-4820-9080

EDUCATION

Korea Advanced Institute of Science and Technology (KAIST)   2019 - 2021
M.S. in Electrical Engineering
Thesis: Diagnosing Data Samples for Robust GAN Training
Advisor: Prof. Hey Won Chung

Korea Advanced Institute of Science and Technology (KAIST)   2014 - 2019
B.S. in Electrical Engineering

WORK EXPERIENCE

Samsung Research   Jul 2021 - present
– AI Solution Team (AI Research Engineer)
– Research topics: On-device ASR, Streaming ASR, Context-aware ASR, Multilingual ASR

LG CNS   Jun 2017 - Jul 2017
– New Technology Development Team (Internship)
– Research topics: Object tracking

PUBLICATIONS

*: Equal contribution

<u>Conference Papers</u>

A More Accurate Internal Language Model Score Estimation for the Hybrid Autoregressive Transducer
Kyungmin Lee*, <u>Haeri Kim</u>*, Sichen Jin, Jinhwan Park, Youngho Han
INTERSPEECH, 2023

Self-Diagnosing GAN: Diagnosing Underrepresented Samples in Generative Adversarial Networks
Jinhee Lee*, <u>Haeri Kim</u>*, Youngkyu Hong*, Hye Won Chung
Conference on Neural Information Processing Systems (NeurIPS), 2021

<u>Under Review</u>

BBPE16: UTF-16-Based Byte-Level Byte-Pair Encoding for Improved Multilingual Speech Recognition
Hyunsik Kim*, <u>Haeri Kim</u>*, Munhak Lee, Kyungmin Lee
Submitted to *IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, 2026

PROJECTS

Speech Large Language Models (SpeechLLMs)   May 2025 - present
- Research and implement methods for integrating a speech encoder with a large language model (LLM) to enable end-to-end learning and multimodal understanding

Multilingual ASR model   Jan 2024 - present

- Model compression through a single multilingual ASR model from 23 different language-specific models

Galaxy S24 speech translation system   Jan 2023 - Dec 2023

- Development of ASR model for Galaxy S24 speech translation system
- Development of streaming on-device ASR model
- [Related article](#)

On-Device ASR model for home appliances (Samsung Bespoke AI)   Mar 2022 - Dec 2022

- Development of light-weight speech recognition models for home appliances
- Language Model (LM) fusion algorithm improvements for better context-awareness
- Model adaptation for home appliances such as air conditioner and refrigerator domain
- [Related article](#)

Data valuation for generative models   Mar 2020 - Jun 2021

- Researched on devising data valuation measures for generative models
- Focused on Generative Adversarial Network (GAN) and used the training dynamics of GAN to diagnose training data

Human face tracking using multi-domain network   Jun 2017 - Jul 2017

- Researched state-of-the-art object tracking technology and implemented it for human face tracking

PATENT

Multilingual Speech Recognition Method and Device
Kyungmin Lee, <u>Haeri Kim</u>, Jinhwan Park, Hyeongmin Oh
PCT/KR2024/016938, 2024

Electronic device for performing speech recognition and control method thereof
Kyungmin Lee, Jaeyoung Roh, Jonguk Yoo, Youngho Han, <u>Haeri Kim</u>
PCT/KR2023/017891, 2023

Self-Diagnosing Generative Adversarial Networks to Diagnose and Emphasize Underrepresented Samples
Hye Won Chung, Jinhee Lee, <u>Haeri Kim</u>, Youngkyu Hong
KR Patent 10-2022-0032061, 2022

TEACHING & TUTORING

Teaching Assistant

– Information Theory (EE623)	Sep 2020 - Dec 2020
– Probability and Introductory Random Processes (EE210)	Mar 2020 - Jun 2020
– Signals and Systems (EE202)	Sep 2019 - Dec 2019

Tutor

– Programming Structure for Electrical Engineering (EE209)	Sep 2019 - Feb 2020
– Introduction to Programming (CS101)	Mar 2018 - Jun 2018

Skills

Programming Languages	Python, C, C++, MATLAB
Libraries	PyTorch, TensorFlow, NumPy, pandas, scikit-learn, Matplotlib