

Junseok Ahn

+82-10-6671-6505 | junseok@mmai.io | junseok520.github.io

 Google Scholar |  LinkedIn |  GitHub

Daejeon - 34184, South Korea

OBJECTIVE

A passionate and driven AI researcher seeking a challenging Research Scientist or Applied Scientist position. Aiming to leverage deep expertise in multimodal deep learning, particularly in generative models for audio-visual synthesis, to contribute to cutting-edge projects in interactive AI, virtual avatars, and human-computer interaction.

EDUCATION

• Korea Advanced Institute of Science and Technology (KAIST)

Integrated MS/PhD in Electrical Engineering

- Advisor: Joon Son Chung

- GPA: 3.98/4.3

Mar 2023 - Present

Daejeon, South Korea

• Korea Advanced Institute of Science and Technology (KAIST)

B.S. in Electrical Engineering

- Graduated Summa Cum Laude (Second in class, Top 1% of department)

- GPA: 4.17/4.3

Mar 2019 - Feb 2023

Daejeon, South Korea

PUBLICATIONS

C=CONFERENCE, J=JOURNAL, P=PATENT, S=IN SUBMISSION, T=THESIS

- [J.1] Youngjoon Jang, Jeongsoo Choi, **Junseok Ahn**, Joon Son Chung (2025). **Deep Understanding of Sign Language for Sign to Subtitle Alignment**. Accepted with minor revision in *Transactions on Multimedia*.
- [C.4] Jaemin Jung*, **Junseok Ahn***, Chaeyoung Jung, Tan Dat Nguyen, Youngjoon Jang, Joon Son Chung (2025). **VoiceDiT: Dual-Condition Diffusion Transformer for Environment-Aware Speech Synthesis**. In *Proceedings of the 2025 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, IEEE. April 6-11, 2025, Hyderabad, India.
- [C.3] **Junseok Ahn**, Youkyum Kim, Yeunju Choi, Doyeop Kwak, Ji-Hoon Kim, Seongkyu Mun, Joon Son Chung (2024). **VoxSim: A perceptual voice similarity dataset**. In *Proceedings of the 2024 Interspeech*, pp. 2580-2584. IEEE. 1-5 September 2024, Kos Island, Greece. (**Nominated as Best Student Paper List**)
- [C.2] Youngjoon Jang*, Ji-Hoon Kim*, **Junseok Ahn**, Doyeop Kwak, Hong-Sun Yang, Yoon-Cheol Ju, Il-Hwan Kim, Byeong-Yeol Kim, Joon Son Chung (2024). **Faces that Speak: Jointly Synthesising Talking Face and Speech from Text**. In *Proceedings of the 2024 IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)*, pp. 8818-8828. IEEE. 16-22 June 2024, Seattle, WA, USA.
- [C.1] **Junseok Ahn***, Youngjoon Jang*, Joon Son Chung (2024). **Slowfast Network for Continuous Sign Language Recognition**. In *Proceedings of the 2024 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, pp. 3920-3924. IEEE. 14-19 April 2024, Seoul, Republic of Korea.

* denotes equal contribution.

EXPERIENCE

• KAIST Multimodal AI Lab []

Undergraduate Researcher participated in KAIST Undergraduate Research Program (URP)

Sep 2021 - Feb 2022

Daejeon, Republic of Korea

- Thesis: Development of speaker recognition model in which non-speaker information is separated
- Developed a speaker recognition framework using adversarial training (GRL) to disentangle language information from speaker embeddings.
- Achieved up to 50% speaker recognition EER improvement on a custom bilingual test set (VoxCeleb1-B) over baseline models.
- Trained a prerequisite ECAPA-TDNN language ID model, achieving 6.7% EER on the VoxLingua107 dataset to generate pseudo-labels.
- Verified the effective removal of language-specific information from speaker embeddings, enhancing model robustness in cross-lingual scenarios.

• Samsung Electronics System LSI []

Student Researcher (Intern)

Sep 2021 - Feb 2022

Republic of Korea

- Developed a 5G NR PUSCH (Uplink) MIMO receiver simulator in MATLAB over a 24-week project.
- Implemented and benchmarked receiver algorithms (Zero Forcing, LMMSE, ML), analyzing BER performance under various Eb/No conditions.
- Analyzed and simulated 5G NR PHY layer (3GPP) standards, including OFDM characteristics, PAPR reduction techniques, and DMRS estimation.

SKILLS

- **Programming Languages:** Python, Pytorch, MATLAB, LaTex
- **Machine Learning:** Hugging Face (Transformers, Diffusers, Accelerate), OpenCV, FFmpeg, Librosa

HONORS AND AWARDS

- **Best Teaching Assistant Award**

Mar 2025

KAIST EE Department

- Selected as best teaching assistant in 2024 Fall semester
- Teaching course: EE488 Deep Learning for Visual Understanding

- **Dean's List**

KAIST

- Awarded Dean's List on Spring 2019, Spring 2020, Spring 2021 semesters

TEACHING EXPERIENCE

- **EE738 Speech Recognition Systems**

Spring 2023, Spring 2024

Teaching Assistant

- Head TA in Spring 2024

- **EE488 Deep Learning for Visual Understanding**

Fall 2023, Fall 2024

Teaching Assistant

- Head TA in Fall 2024
- Got Best TA Award in Fall 2024

ADDITIONAL INFORMATION

Languages: Korean (native), English (fluent)

REFERENCES

1. **Joon Son Chung**

Associate Professor, Electrical Engineering

Korea Advanced Institute of Science and Technology (KAIST)

Email: joonsonchung@gmail.com

Relationship: PhD advisor at KAIST