Youngjoon Jang

Email: jyj@mmai.io PhD Student, KAIST. Webpage: https://art-jang.github.io

Research Interest

 My research aims to effectively train deep neural networks with multi-modality (vision, audio and text). In particular, I am interested in automatic sign language recognition for helping deaf people.

EDUCATION

Korea Advanced Institute of Science and Technology (KAIST)

Ph.D. in Division of Future Vehicle, School of Electrical Engineering; Advisor: Joon Son Chung

Daejeon, South Korea Sep. 2022 – Present

Korea Advanced Institute of Science and Technology (KAIST)

Daejeon, South Korea

M.S. in Division of Future Vehicle, School of Electrical Engineering; Advisor: In So Kweon

Mar. 2020 - Feb. 2022

o Thesis: Learning Methodology According to Characteristics of Continuous Sign Language Recognition Dataset

Kwangwoon University

Seoul, South Korea Mar. 2014 - Feb. 2020

B.S. in Division of Robotics; GPA: 4.3/4.5

Work Experience

Korea Advanced Institute of Science and Technology (KAIST)

Researcher, Multimodal AI Lab.

Daejeon, South Korea Mar. 2022 - Aug. 2022

Publication

International Conferences

• Slowfast Network for Continuous Sign Language Recognition.

Junseok Ahn*, Youngjoon Jang*, and Joon Son Chung

- o International Conference on Acoustics, Speech, and Signal Processing (ICASSP), 2024.
- VoxMM: Rich Transcription of Conversations in the Wild.
 - Doyeop Kwak, Jaemin Jung, Kihyun Nam, Youngjoon Jang, Jee-weon Jung, Shinji Watanabe, and Joon Son Chung o International Conference on Acoustics, Speech, and Signal Processing (ICASSP), 2024.
- o FreGrad: Lightweight and Fast Frequency-aware Diffusion Vocoder.
 - Tan Dat Nguyen, Ji-Hoon Kim, Youngjoon Jang, Jaehun Kim, and Joon Son Chung
 - International Conference on Acoustics, Speech, and Signal Processing (ICASSP), 2024.
- o TalkNCE: Improving Active Speaker Detection with Talk-aware Contrastive Learning.
 - Chaeyoung Jung, Suyeon Lee, Kihyun Nam, Kyeongha Rho, You Jin Kim, Youngjoon Jang, and Joon Son Chung
 - o International Conference on Acoustics, Speech, and Signal Processing (ICASSP), 2024.
- Seeing Through the Conversation: Audio-visual Speech Separation based on Diffusion Model.
 - Suyeon Lee, Chaeyoung Jung, Youngjoon Jang, Jaehun Kim, and Joon Son Chung
 - o International Conference on Acoustics, Speech, and Signal Processing (ICASSP), 2024.
- That's What I said: Fully-Controllable Talking Face Generation.

Youngjoon Jang*, Kyeongha Rho*, Jongbhin Woo, Hyeongkeun Lee, Jihwan Park, Youshin Lim, Byeong-Yeol, Kim, and Joon Son Chung

- o ACM International Conference on Multimedia (ACMMM), 2023.
- o Self-Sufficient Framework for Continuous Sign Language Recognition.

Youngjoon Jang, Youngtaek Oh, Jae Won Cho, Myungchul Kim, Dong-Jin Kim, In So Kweon, and Joon Son Chung o International Conference on Acoustics, Speech, and Signal Processing (ICASSP), 2023. (Top 3% Paper Recognition)

- Metric Learning for User-Defined Keyword Spotting.
 - Jaemin Jung*, Youkyum Kim*, Jihwan Park, Youshin Lim, Byeong-Yeol Kim, Youngjoon Jang, and Joon Son Chung o International Conference on Acoustics, Speech, and Signal Processing (ICASSP), 2023.
- o Signing Outside the Studio: Benchmarking Background Robustness for Continuous Sign Language Recognition.

Youngjoon Jang, Youngtaek Oh, Jae Won Cho, Dong-Jin Kim, Joon Son Chung, and In So Kween

- o British Machine Vision Conference (BMVC), 2022.
- o KSL-Guide: A Large-scale Korean Sign Language Dataset Including Interrogative Sentences for Guiding the Deaf and Hard-of-Hearing.
 - Soomin Ham, Kibaek Park, Youngjoon Jang, Youngtaek Oh, Seokmin Yun, Sukwon Yoon, Chang Jo Kim, Han-Mu Park, and In So Kweon
 - o International Conference on Automatic Face and Gesture Recognition (FG), 2021.

AWARDS & HONORS

International Competitions

- $\circ~1st~Place,$ R-BIZ Challenge TURTLEBOT3 AUTORACE, Nov. 2018
- o 5th Place, Sumo Robot, International Robot Contest (IRC), Oct. 2018
- o 3rd Place, R-BIZ Challenge TURTLEBOT3 AUTORACE, Sep. 2017
- o 5th Place, RoboCup Iran Open Rescue, Apr. 2017

National Competitions

- $\circ~$ 2nd Place, Science and Technology Specialized University Startup Competition (GIST), Nov. 2021
- o 2nd Place, App Startup Support Program Contest (KAIST), Apr. 2021
- $\circ~1st~Place,$ Robo
Cup Korea Open Rescue, Feb. 2017

Teaching

Teaching Assistance (TA) at FV, KAIST

- * PD513: Future Vehicle Capstone Design (Fall, 2022)
- * PD806: Automobile Special Topics in Mechanical Engineering (Fall, 2021)

TECHNICAL SKILLS

Programming: C, C++, Python, Pytorch