Youngjoon Jang

PhD Student, KAIST.

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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) — Daejeon, South Korea
Ph.D. in Division of Future Vehicle, School of Electrical Engineering; Advisor: Joon Son Chung — 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
- Thesis: Learning Methodology According to Characteristics of Continuous Sign Language Recognition Dataset

Kwangwoon University — Seoul, South Korea
B.S. in Division of Robotics; GPA: 4.3/4.5 — Mar. 2014 – Feb. 2020

Work Experience

University of Oxford — Oxford, UK
Visiting student, VGG group — May. 2024 - Nov. 2024

Korea Advanced Institute of Science and Technology (KAIST) — Daejeon, South Korea
Researcher, Multimodal AI Lab. — Mar. 2022 - Aug. 2022

Publication

International Journals

- [J1] Deep Understanding of Sign Language for Sign to Subtitle Alignment.
  Youngjoon Jang*, Jeongsoo Choi*, Junseok Ahn, and Joon Son Chung*
  - IEEE Transactions on Multimedia (TMM), 2025.

International Conferences

- [C16] AVCD: Mitigating Hallucinations in Audio-Visual Large Language Models through Contrastive Decoding.
  Chaeyoung Jung, **Youngjoon Jang***, and Joon Son Chung*
  - Neural Information Processing Systems (NeurIPS), 2025.
- [C15] Test-Time Augmentation for Pose-invariant Face Recognition.
  Jaemin Jung, **Youngjoon Jang***, and Joon Son Chung*
  - International Conference on Automatic Face and Gesture Recognition (FG), 2025.
- [C14] Lost in Translation, Found in Context: Sign Language Translation with Contextual Cues.
  Youngjoon Jang*, Haran Raajesh*, Lilane Momeni, Gül Varol, Andrew Zisserman*
  - Computer Vision and Pattern Recognition Conference (CVPR), 2025.
- [C13] VoiceDiT: Dual-Condition Diffusion Transformer for Environment-Aware Speech Synthesis.
  Jaemin Jung, Junseok Ahn*, Chaeyoung Jung, Tan Dat Nguyen, **Youngjoon Jang**, and Joon Son Chung*
  - International Conference on Acoustics, Speech, and Signal Processing (ICASSP), 2025.
- [C12] Let Me Finish My Sentence: Video Temporal Grounding with Holistic Text Understanding.
  *Jongbhin Woo, Hyeonggon Ryu, **Youngjoon Jang**, Jae Won Cho, and Joon Son Chung*
  - ACM International Conference on Multimedia (ACMMM), 2024.
- [C11]Faces that Speak: Jointly Synthesising Talking Face and Speech from Text.
  Youngjoon Jang*, Ji-Hoon Kim*, Junseok Ahn, Doyeop Kwak, Hongsun Yang, Yooncheol Ju, ILHWAN KIM, Byeong-Yeol Kim, and Joon Son Chung*
  - Computer Vision and Pattern Recognition Conference (CVPR), 2024.
- [C10] Slowfast Network for Continuous Sign Language Recognition.
  Junseok Ahn, **Youngjoon Jang***, and Joon Son Chung*
  - International Conference on Acoustics, Speech, and Signal Processing (ICASSP), 2024.
- [C9] 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*
  - International Conference on Acoustics, Speech, and Signal Processing (ICASSP), 2024.

- [C8] 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.
- [C7] 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*
  - International Conference on Acoustics, Speech, and Signal Processing (ICASSP), 2024.
- [C6] Seeing Through the Conversation: Audio-visual Speech Separation based on Diffusion Model.
  Suyeon Lee, Chaeyoung Jung, ***Youngjoon Jang****, Jaehun Kim, and Joon Son Chung*
  - International Conference on Acoustics, Speech, and Signal Processing (ICASSP), 2024.
- [C5] 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*
  - ACM International Conference on Multimedia (ACMMM), 2023.
- [C4] 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*
  - International Conference on Acoustics, Speech, and Signal Processing (ICASSP), 2023. (Top 3% Paper Recognition)
- [C3] Metric Learning for User-Defined Keyword Spotting.
  Jaemin Jung, Youkyum Kim*, Jihwan Park, Youshin Lim, Byeong-Yeol Kim,* ***Youngjoon Jang****, and Joon Son Chung*
  - International Conference on Acoustics, Speech, and Signal Processing (ICASSP), 2023.
- [C2] 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 Kweon*
  - British Machine Vision Conference (BMVC), 2022.
- [C1] 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*
  - International Conference on Automatic Face and Gesture Recognition (FG), 2021.

Awards & Honors

International Competitions

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

National Competitions

- *2nd Place*, Science and Technology Specialized University Startup Competition (GIST), Nov. 2021
- *2nd Place*, App Startup Support Program Contest (KAIST), Apr. 2021
- *1st Place*, RoboCup Korea Open Rescue, Feb. 2017

Teaching

Teaching Assistance (TA) at FV, KAIST

- PD513: Future Vehicle Capstone Design (Spring, 2023)
- PD513: Future Vehicle Capstone Design (Fall, 2022)
- PD806: Automobile Special Topics in Mechanical Engineering (Fall, 2021)

Technical Skills

Programming: C, C++, Python, Pytorch