

Kyeong-Rae Kim

Electrical Engineering Undergraduate · KAIST

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RESEARCH INTERESTS

Signal processing and multimodal fusion of visual, acoustic, and tactile signals; spatial audio-visual reasoning and physics-aware AI.

EDUCATION

Korea Advanced Institute of Science and Technology (KAIST)

2022 — Present

Bachelor of Science in Electrical Engineering · Expected February 2027

Signal Processing Division

Cumulative GPA: 3.64 / 4.30

PUBLICATIONS

FloorSAV: Elucidating Spatial Audio-Visual Context with 2D Floormap for AV-LLMs

Kyeongrae Kim, Sungnyun Kim, Tae-Hyun Oh

arXiv, 2026 · [Paper](#) · [Project](#)

Physics-Aware Deepfake Detection via Distance–Speech Consistency

Kyeongrae Kim, Sung-Bin Kim, Hyun-Bin Oh, Tae-Hyun Oh

Proc. Interspeech 2026, pp. 2424–2428 · DOI: 10.21437/Interspeech.2026-1541

[Paper](#) · [Project](#)

ACADEMIC EXPERIENCE

KAIST AMI Lab · Research Intern

Aug. 2025 — Present

Advisor: Prof. Tae-Hyun Oh · Daejeon, South Korea

- Participated in the KAIST Undergraduate Research Program, 2026 Winter/Spring.
- Researched physics-aware deepfake video detection by verifying acoustic measures against speaker position.
- Work accepted at Interspeech 2026.

KAIST Smart Sound System Lab · Research Intern

Jun. 2024 — Jul. 2025

Advisor: Prof. Jung-Woo Choi · Daejeon, South Korea

- Participated in the KAIST Undergraduate Research Program, 2025 Winter/Spring.
- Researched masked indoor scene inpainting using corresponding first-order ambisonic room impulse responses.
- Received the KAIST URP Excellent Award.

RESEARCH PROJECTS

Unpaired Super-Resolution for Fluorescence Microscopy of Mouse Neurons

Aug. 2025 — Jan. 2026

- Commissioned collaboration with a Ph.D. researcher at KAIST Graduate School of Medical Science and Engineering.
- Researched a physics-aware model for super-resolution in *in-vivo* mouse neuron imaging.

AWARDS

KAIST URP Excellent Award · Top 3 in EECS

Nov. 2025

Updated October 2026 · Kyeong-Rae Kim