

Hyun-Bin Oh

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Last updated: Aug 22, 2026

RESEARCH INTEREST

Time-varying signals (*e.g.*, video and audio), Physically grounded AI, Generative models, Talking avatars, MLLMs

EXPERIENCE

Sony AI

Research Scientist Intern, Cinematic Technology Team

Remote

Apr. 2026 – Oct. 2026

- Hosts: Kazuki Shimada, Takashi Shibuya, and Yuki Mitsufuji

Sony AI

Research Scientist Intern, Deep Generative Modeling Team

Tokyo, Japan

Jul. 2025 – Mar. 2026

- Hosts: Yuhta Takida, Toshimitsu Uesaka, and Yuki Mitsufuji

POSTECH → KAIST

Research Assistant (Advisor: Prof. Tae-Hyun Oh)

Pohang → Daejeon, Korea

Feb. 2022 – Present

Seoul National University

Research Student Intern (Advisor: Prof. Wonyong Sung & Prof. Chanwoo Kim)

Seoul, Korea

Aug. 2021 – Dec. 2021

Seoul National University

Research Student Intern (Advisor: Prof. DongSuk Jeon)

Seoul, Korea

Dec. 2020 – Feb. 2021

EDUCATION

POSTECH

Integrated M.S./Ph.D. in Electrical Engineering (Advisor: Prof. Tae-Hyun Oh)

Pohang, Korea

Mar. 2022 – Feb. 2028 (Expected)

Chung-Ang University

B.S. in Physics & B.E. in Electrical Engineering (Dual Degree); Summa Cum Laude

Seoul, Korea

Mar. 2017 – Aug. 2021

PUBLICATION (INTERNATIONAL)

“*” denotes equal contribution. “†” denotes co-corresponding authors.

[12] A paper on Spatial Audio-Visual LLM for Holistic Scene Understanding.

To be updated

[11] Spatio-Temporal Audio Language Modeling for Dynamic Sound Sources.

Oh Hyun-Bin, K. Shimada, Y. Takida, K. Sung-Bin, T. Uesaka, T. Shibuya, K. Lee, T.-H. Oh, and Y. Mitsufuji
EMNLP, 2026 (Main)

*[Work done during an internship at Sony AI](#)

[10] CineHaptic: Context-Aware Real-Time Audiovisual-to-Haptic Rendering System for In-Vehicle 4D Cinematic Experiences.

J. Kim, H. Kim, **Oh Hyun-Bin**, J. Kang†, T.-H. Oh†, and S. Choi†

UIST, 2026

[9] Revisiting Learning-based Video Motion Magnification for Real-time Processing.

H. Ha*, **Oh Hyun-Bin***, K. Jun-Seong, K. Byung-Ki, K. Sung-Bin, L.-T. Tran, J.-Y. Kim, S.-H. Bae, T.-H. Oh

TMLR, 2026

[8] Physics-Aware Deepfake Detection via Distance-Speech Consistency.

K. Kyeongrae, K. Sung-Bin, **Oh Hyun-Bin**, and T.-H. Oh

INTERSPEECH, 2026

[7] PAVAS: Physics-Aware Video-to-Audio Synthesis.

Oh Hyun-Bin, T. Yuhta, U. Toshimitsu, T.-H. Oh, Y. Mitsufuji

CVPR, 2026 ([Oral presentation](#))

[*Work done during an internship at Sony AI](#)

[6] Perceptually Accurate 3D Talking Head Generation: New Definitions, Speech-Mesh Representation, and Evaluation Metrics.

C.-Y. Lee*, **Oh Hyun-Bin***, H. EunGi, K. Sung-Bin, S. Nam, T.-H. Oh

CVPR, 2025 ([Selected as a highlight paper \(< 3.7% acceptance rate\) with all strong accept 5,5,5 scores](#))

[5] AVHBench: A Cross-Modal Hallucination Evaluation for Audio-Visual Large Language Models.

K. Sung-Bin*, **Oh Hyun-Bin***, J. Lee, A. Senocak, J. Chung and T.-H. Oh

ICLR, 2025

[4] Learning-based Axial Video Motion Magnification.

K. Byung-Ki, **Oh Hyun-Bin**, K. Jun-Seong, H. Ha, and T.-H. Oh

ECCV, 2024

[3] Enhancing Speech-Driven 3D Facial Animation with Audio-Visual Guidance from Lip Reading Expert.

H. EunGi*, **Oh Hyun-Bin***, K. Sung-Bin, C. Etcheberry, S. Nam, J. Ju, and T.-H. Oh

INTERSPEECH, 2024

[2] MultiTalk: Enhancing 3D Talking Head Generation Across Languages with Multilingual Video Dataset.

K. Sung-Bin*, C.-Y. Lee*, G. Son*, **Oh Hyun-Bin**, J. Ju, S. Nam, and T.-H. Oh

INTERSPEECH, 2024

[1] Uni-DVPS: Unified Model for Depth-Aware Video Panoptic Segmentation.

K. Ji-Yeon, **Oh Hyun-Bin**, K. Byung-Ki, D. Kim, Y. Kwon, and T.-H. Oh

IEEE Robotics and Automation Letters (RA-L), Jul. 2024 ([Oral presentation in IROS 2024](#))

([Best Paper Award on Asian Federation of Computer Vision \(AFCV\)](#))

AWARD & HONOR

Best Paper Award, Silver Prize, IPIU, 2025.

Best Paper Award, KRoC, 2024.

Best Paper Award, Encouragement, IPIU, 2023.

Summa Cum Laude, Chung-Ang University, 2021.

Department Honors Scholarship (ranked 1st in the department), Chung-Ang University, 2021.

Science Scholarship, Suwon Municipal Scholarship Foundation, 2018.

Department Honors Scholarship (ranked 1st in the department), Chung-Ang University, 2017.

PATENT

Method and Apparatus for Magnifying Axial Motion of Video

2024

- United States, P2024258-02-US (Application)
- Republic of Korea, 10-2024-0140333 (Application)

ACADEMIC SERVICE

Journal Reviewer

- International Journal of Computer Vision (IJCV), Pattern Recognition (PR)

Conference Reviewer

- CVPR, NeurIPS, SIGGRAPH Asia, ACCV

Teaching Experiences

- NAVER Boostcamp AI Tech Computer Vision Track (5th, 6th)
- [EECE454] Introduction to Machine Learning, POSTECH

Deep Learning Seminar

- KAIST AMILab seminar [\[YouTube\]](#)
- POSTECH EE-group deep learning seminar

TECHNICAL SKILLS

Programming: Python, C/C++, MATLAB, JavaScript, HTML/CSS, LaTeX

Frameworks: PyTorch, NumPy, OpenCV, Git

REFERENCE

Dr. Tae-Hyun Oh, Professor, KAIST

- Relationship: Ph.D. advisor

Dr. Yuki Mitsufuji, VP of AI Research, Sony AI / Visiting Research Professor, New York University

- Relationship: Host and collaborator at Sony AI