Jaehwan Jeong

☑ Email | ☎ Google Scholar | in LinkedIn | ★ Website

RESEARCH INTERESTS

Embodied AI, Robotic Learning, Autonomous Systems Multi-modal learning, Generative model, AI safety

EDUCATION

Korea University

Ph.D. - Artificial Intelligence

• Chung-Ang University

B.E. - Electrical & Electronic Engineering

Mar. 2024 - Fe. 2029 (Expected)

Seoul, South Korea

Mar. 2017 - Fe. 2021

Seoul, South Korea

EXPERIENCE

• Structures-Computer Interaction Lab @ University of California, Los Angeles (UCLA)

Mar. 2025 - Present

Visiting Graduate Researcher; 3D Farm Project Lead (Advisor: Prof. Khalid)

- VLA-based autonomous navigation & manipulation with multi-sensor fusion (in progress)
- \circ Eye-in-Hand autonomous robotic arm manipulation [J3]
- Integrated UGV field robotics system deployment [J2]
- Computer Vision Lab @ Korea University

Ph.D. Student Researcher (Advisor: Prof. Sangpil Kim)

Mar. 2024 - Fe. 2025

- Adversarial noise for Deepfake AI safety (collaborated with Dr. Jaewook Chung @ Samsung Research) [C2]
- Multi-modal audio-to-video generation (collaborated with Dr. Eugenio Culurciello @ Purdue Univ.) [J1]
- Computer Vision Lab @ Korea University

Jul. 2023 - Fe. 2024

Undergraduate Research Intern (Advisor: Prof. Sangpil Kim)

• Diffusion-based long video generation (collaborated with Dr. Wonmin Byeon @ NVIDIA Research) - [C1]

• Military Officer Mar. 2021 - Jun. 2023

Signal Company, 5th Armored Brigade, Republic of Korea Army

- o Operations and Tactical Planner 1st Lieutenant
- Wired communication network management (UTP, Optical cables) 2nd Lieutenant

PUBLICATIONS C=Conference, J=Journal

- [J3] Jaehwan Jeong*, Tuan-Anh Vu*, Radha Lahoti, Jiawen Wang, Vivek Alumootil, Sangpil Kim, M. Khalid Jawed, *Vision-Guided Targeted Grasping and Vibration for Robotic Pollination in Controlled Environments*, under review, 2025 [PDF] [GitHub]
- [J2] Jaehwan Jeong, Tuan-Anh Vu, Mohammad Jony, Shahab Ahmad, Md. Mukhlesur Rahman, Sangpil Kim, M. Khalid Jawed, *AgriChrono: A Multi-modal Dataset Capturing Crop Growth and Lighting Variability with a Field Robot*, under review, 2025 [PDF] [GitHub]
- [C2] Jaehwan Jeong, Sumin In, Sieun Kim, Shin han yi, Jonghen Jeong, Sang Ho Yoon, Jaewook Chung, Sangpil Kim, FaceShield: Defending Facial Image against Deepfake Threats, International Conference on Computer Vision (ICCV) 2025 [PDF] [GitHub]
- [J1] Sieun Kim, Jaehwan Jeong, Sumin In, Seung Hyun Lee, Seungryong Kim, Saerom Kim, Wooyeol Baek, Sang Ho Yoon, Eugenio Culurciello, Sangpil Kim, Semantically Complex Audio to Video Generation with Audio Source Separation, Engineering Applications of Artificial Intelligence (JCR IF Top 10%) 2025 [PDF] [GitHub]
- [C1] Gyeongrok Oh, Jaehwan Jeong, Sieun Kim, Wonmin Byeon, Jinkyu Kim, Sungwoong Kim, Sangpil Kim, MEVG: Multi-event Video Generation with Text-to-Video Models, European Conference on Computer Vision (ECCV) 2024 [PDF] [GitHub]

ACADEMIC SERVICE

• Conference Reviewer

IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), 2025 IEEE/CVF International Conference on Computer Vision (ICCV), 2025 The 29th International Conference on Developments in Language Theory (DLT), 2025

Journal Reviewer

Computer Vision and Image Understanding (CVIU), 2025 Engineering Applications of Artificial Intelligence (EAAI), 2025

PATENTS

[P1] Jaehwan Jeong, Sangpil Kim, Method and Apparatus for Protecting Facial Image based on Disturbance Signal to Counter Deepfake Attack, Korean Patent, No. 10-2025-0118588 (2025.08.25)

SKILLS

- AI & Perception
 Diffusion Models, VLM(A), Adversarial Attack
 VI-SLAM, Navigation, 3D Recon., NBV
- Robotics & Sensor Fusion
 Unmanned Ground Vehicle (UGV), Robotic Arms
 Stereo & RGB-D Cameras, LiDAR, GNSS, IMU