Jaehwan Jeong

✉ Email | 🎓 Google Scholar | 🔗 LinkedIn | 🏠 Website

RESEARCH INTERESTS

Embodied AI, Robotic Learning, Autonomous Systems, Sim-to-Real
Vision-Language Model, Multi-modal learning, Generative model, AI safety

EDUCATION

• **Korea University** *Mar. 2024 - Fe. 2029 (Expected)*
Ph.D. - Artificial Intelligence Seoul, South Korea
• **Chung-Ang University** *Mar. 2017 - Fe. 2021*
B.E. - Electrical & Electronic Engineering 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. M. Khalid Jawed)*
  ◦ VLM & RL-driven safe autonomous mobile robots with multi-sensor fusion *(in progress)*
  ◦ Eye-in-Hand autonomous robotic arm manipulation - **[J3]**
  ◦ Robotic agricultural 3D reconstruction benchmark and dataset *(collaborated with NDSU)* - **[J2]**

• **Computer Vision Lab @ Korea University** *Mar. 2024 - Present*
Ph.D. Student Researcher (Advisor: Prof. Sangpil Kim)
  ◦ 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
  ◦ 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]

[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] [Project] [Code]

[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] [Code]

[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] [Code]

[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] [Code]

ACADEMIC SERVICE

- **Conference Reviewer**
  IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), 2025, 2026
  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, 2026

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**
  Vision-Language Models, Reinforcement Learning, Adversarial Attack, Diffusion Models, GANs

- **Robotics & Sensor Fusion**
  Unmanned Ground Vehicle (UGV), Robotic Arms, Simulation, ROS 2, RGB-D Cameras, LiDAR, IMU

REFERENCES

- **Asst. Prof. Sangpil Kim**
  Department of Artificial Intelligence, Korea University, South Korea
- **Assoc. Prof. M. Khalid Jawed**
  Department of Mechanical and Aerospace Engineering, University of California, Los Angeles
- **Postdoc. Tuan-Anh Vu**
  Department of Mechanical and Aerospace Engineering, University of California, Los Angeles