

Myungkyu Koo

🏠 myungkyukoo.github.io | ✉ jameskoo0503@kaist.ac.kr | 🌐 [myungkyukoo](https://myungkyukoo.github.io)

Research Interests

My research focuses on advancing computer vision and robotics foundation models. From this perspective, I am especially interested in enhancing models' comprehensive world understanding through visual signals, and effectively leveraging this understanding for diverse multi-modal generation tasks. In particular, I am currently working on Vision-Language-Action models (VLAs) to enable generalizable and dexterous robot manipulation.

Keywords: Computer vision, Robotics foundation models, Vision-Language-Action models (VLAs)

Education

Korea Advanced Institute of Science and Technology (KAIST)

Seoul, Korea

Ph.D. Student in Artificial Intelligence

Mar. 2024 - Present

Advisor: [Jinwoo Shin](#)

Korea Advanced Institute of Science and Technology (KAIST)

Daejeon, Korea

B.S. in Electrical Engineering (minor in Computer Science)

Mar. 2018 - Feb. 2024

Magna Cum Laude (GPA: 3.86/4.3)

Publications

Preprints (*: Equal Contribution, †: Equal Advising)

P3 Contrastive Representation Regularization for Vision-Language-Action Models

Taeyoung Kim, Jimin Lee, [Myungkyu Koo](#), Dongyoung Kim, Kyungmin Lee, Changyeon Kim, Younggyo Seo, Jinwoo Shin

P2 HAMLET: Switch your Vision-Language-Action Model into a History-Aware Policy

[Myungkyu Koo](#)*, Daewon Choi*, Taeyoung Kim, Kyungmin Lee, Changyeon Kim, Younggyo Seo†, Jinwoo Shin†

P1 FontAdapter: Instant Font Adaptation in Visual Text Generation

Myungkyu Koo, Subin Kim, Sangkyung Kwak, Jaehyun Nam, Seojin Kim, Jinwoo Shin

Experience

Research Intern

[Pion Corporation](#)

Jul. 2023 - Dec. 2023

- Developed an image-to-video model pipeline that generates 3D rotation video assets from a single-view product image, enabling automated creation of advertisement videos based on product listing pages.

Undergraduate Research Intern

[CILAB, KAIST](#)

Mar. 2020 - Dec. 2020

- Participated in a research project on developing a monocular depth estimation model.

Honors and Awards

Recipient, Academic Excellence Award (Dean's List)

Jun. 2021

Recipient, National Science & Technology Scholarship

Mar. 2018 - Feb. 2024

Recipient, Hansung Scholarship for Gifted Students

Feb. 2016

References

Prof. Jinwoo Shin, Full Professor at KAIST

E-mail: jinwoos@kaist.ac.kr