HONGGYU AN

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RESEARCH INTEREST

Depth Estimation, Neural Radiance Field, 3D Vision

EDUCATION

Korea Advanced Institute of Science and Technology (KAIST) Sep. 2024 - Present
M.S/Ph.D integrated in Computer Science and Engineering *Seoul, Korea*
Supervisor: Seungryong Kim

Korea University Mar. 2024 - Aug. 2024
M.S in Computer Science and Engineering *Seoul, Korea*
Supervisor: Seungryong Kim

Korea University Mar. 2020 - Feb. 2024
B.S. in Department of Computer Science and Engineering *Seoul, Korea*
GPA: 4.33 / 4.5

EXPERIENCE

CVLAB, Korea University Jan. 2022 - Feb. 2024
Research Intern *Seoul, Korea*
Supervisor: Seungryong Kim

PUBLICATION

Honggyu An[*], Jaewoo Jung[*], Mungyeom Kim, Sunghwan Hong, Chaehyun Kim, Kazumi Fukuda, Minkeyong Jeon, Jisang Han, Takuya Narihira, Hyuna Ko, Junsu Kim, Yuki Mitsufuji[†], and Seungryong Kim[†], "C3G: Learning Compact 3D Representations with 2K Gaussians", arXiv, 2025.

Jisang Han, Sunghwan Hong, Jaewoo Jung, Wooseok Jang, **Honggyu An**, Qianqian Wang, Seungryong Kim, Chen Feng, "Emergent Outlier View Rejection in Visual Geometry Grounded Transformers", arXiv, 2025.

Soowon Son, Jisu Nam, Chaehyun Kim, **Honggyu An**, Hyunah Ko, Dahyun Chung, Siyoon Jin, Jung Yi, Jaewon Min, Jiyoung Kim, Junhwa Hur, Seungryong Kim, "Repurposing Video Diffusion Transformers for Robust Point Tracking", *underreview*.

Heeji Yoon[*], Jaewoo Jung[*], Junwan Kim[*], Hyungyu Choi, Heeseong Shin, Sangbeom Lim, **Honggyu An**, Chaehyun Kim, Jisang Han, Donghyun Kim, Chanho Eom, Sunghwan Hong, and Seungryong Kim, "VIRAL: Visual Representation Alignment for Multimodal Large Language Model", arXiv, 2025.

Jisang Han[*], **Honggyu An**[*], Jaewoo Jung[*], Takuya Narihira, Junyoung Seo, Kazumi Fukuda, Chaehyun Kim, Sunghwan Hong, Yuki Mitsufuji, and Seungryong Kim, "D^2USt3R: Enhancing 3D Reconstruction with 4D Pointmaps for Dynamic Scenes", *Neural Information Processing Systems* (**NeurIPS**), 2025.

Honggyu An*, Jinhyeon Kim*, Seonghoon Park, Jaewoo Jung, Jisang Han, Sunghwan Hong, and Seungryong Kim, "Cross-View Completion Models are Zero-shot Correspondence Estimators", *Computer Vision and Pattern Recognition Conference* (**CVPR highlight**), 2025.

Seokju Cho, Jiahui Huang, Jisu Nam, **Honggyu An**, Seungryong Kim†, and Joon-Young Lee†, "Local All-Pair Correspondence for Point Tracking", *The European Conference on Computer Vision* (**ECCV**), 2024.

Jaewoo Jung*, Jisang Han*, **Honggyu An***, Jiwon Kang*, Seonghoon Park*, and Seungryong Kim, "RAIN-GS: Relaxing Accurate Initialization Constraint for 3D Gaussian Splatting", arXiv, 2024.

Jongbeom Baek*, Gyeongnyeon Kim*, Seonghoon Park*, **Honggyu An**, Matteo Poggi, and Seungryong Kim, "MaskingDepth: Masked Consistency Regularization for Semi-supervised Monocular Depth Estimation", *IEEE/RSJ International Conference on Intelligent Robots and Systems* (**IROS**), 2024.

Jiuhn Song*, Seonghoon Park*, **Honggyu An***, Seokju Cho, Min-Seop Kwak, Sungjin Cho, and Seungryong Kim, "DäRF: Boosting Radiance Fields from Sparse Input Views with Monocular Depth Adaptation", *Neural Information Processing Systems* (**NeurIPS**), 2023.

PROJECTS

Prior research on Multi-Frame Based Depth Estimation for Improving Spatial Recognition
Hyundai Motors *Jun. 2023 - May. 2024*

- Multi-Frame depth estimation

Context and Activity Analysis-based Solution for Safe Childcare
Yonsei University *Jan. 2023 - Dec. 2023*

- Object Tracking, Re-identification, Human pose estimation

Prior research for advanced semantic segmentation performance
Hyundai Motors *Mar. 2022 - Nov. 2022*

- Depth estimation, Semantic segmentation
- Domain adaptation, Multi-task learning, Semi-supervised learning