

INTRO.

I am a PhD student at KAIST, advised by Prof. Seungryong Kim. My research focuses on leveraging large-scale generative priors to model worlds, humans, and their complex interactions.

I have worked with image and video diffusion models, applying them to 3D object and scene generation, as well as realistic human video generation. Currently, I am focusing on extending these methods to model complex human-human and human-world interactions, exploring how generative priors can capture interaction dynamics.

INTERNSHIPS

Meta | Research Scientist Intern Mar. 2025 - Sep. 2025

- Project: Arbitrary-Length Human Video Synthesis with Large-Scale DiTs.

Sony AI | Research Scientist Intern Dec. 2023 - May. 2024

- Project: Scene-Level Novel View Generative Models with Sparse Geometry.

COLLAB.

NAVER | Research Residency Oct. 2025 - Feb. 2026

- Project: 3D Generation with Multimodal Large Language Models

Sony AI | Research Collaborator May. 2024 - Feb. 2025

- Project: Video Generative Models for Camera Trajectory Editing

Queen Mary University of London | Visiting Scholar May. 2023 - Aug. 2023

- Project: Leveraging Diffusion Generative Priors for Robot Manipulation.
Collaborated with Dr. Changjae Oh.

PUBLICATIONS

1. **Junyoung Seo**, Rodrigo Mira, Alexandros Haliassos, Stella Bounareli, Honglie Chen, Linh Tran, Seungryong Kim, Zoe Landgraf, Jie Shen, “Lookahead Anchoring: Preserving Character Identity in Audio-Driven Human Animation”,

Work done during internship at Meta.
(Under Review) *ArXiv*, 2025. [Link]

2. **Junyoung Seo***, Jisang Han*, Jaewoo Jung*, Siyoon Jin, Jounghbin Lee, Takuya Narihira, Kazumi Fukuda, Takashi Shibuya, Donghoon Ahn, Shoukang Hu, Seungryong Kim, Yuki Mitsufuji, “Vid-CamEdit: Video Camera Trajectory Editing with Generative Rendering from Estimated Geometry”,
AAAI Conference on Artificial Intelligence (AAAI), 2026. [Link]

3. Jisang Han, Honggyu An, Jaewoo Jung, Takuya Narihira, **Junyoung Seo**, Kazumi Fukuda, Chaehyun Kim, Sunghwan Hong, Seungryong Kim, Yuki Mitsufuji, “D2USt3R: Enhancing 3D Reconstruction with 4D Pointmaps for Dynamic Scenes”,
Neural Information Processing Systems (NeurIPS), 2025. [Link]

4. Kihong Kim*, Yunho Kim*, Seokju Cho, **Junyoung Seo**, Jisu Nam, Kychul Lee, Seungryong Kim, Kwang Hee Lee, “DiffFace: Diffusion-based Face Swapping with Facial Guidance”,
Pattern Recognition (PR), 2025. [Link]

5. **Junyoung Seo**, Kazumi Fukuda, Takashi Shibuya, Takuya Narihira, Naoki Murata, Shoukang Hu, Chieh-Hsin Lai, Seungryong Kim, Yuki Mitsufuji, “GenWarp: Single Image to Novel Views with Semantic-Preserving Generative Warping”,

Work done during internship at Sony AI.
Neural Information Processing Systems (NeurIPS), 2024. [Link]

6. **Junyoung Seo**, Susung Hong, Wooseok Jang, Min-Seop Kwak, Hyeonsu Kim, Doyup Lee, Seungryong Kim, “Retrieval-augmented Score Distillation for Text-to-3D Generation”,
International Conference on Machine Learning (ICML), 2024. [Link]

7. **Junyoung Seo***, Wooseok Jang*, Min-Seop Kwak*, Jaehoon Ko, Hyeonsu Kim, Junho Kim, Jin-Hwa Kim, Jiyoung Lee, Seungryong Kim, “Let 2D Diffusion Model Know 3D-Consistency for Robust Text-to-3D Generation”,
International Conference on Learning Representations (ICLR), 2024. [Link]

8. Gyeongnyeon Kim*, Wooseok Jang*, Gyuseong Lee*, Susung Hong, **Junyoung Seo**, Seungryong Kim, “DAG: Depth-Aware Guidance with Denoising Diffusion Probabilistic Models”,
Pattern Recognition (PR), 2024.

9. **Junyoung Seo***, Gyuseong Lee*, Seokju Cho, Jiyoung Lee, Seungryong Kim, “MIDMs: Matching Interleaved Diffusion Models for Exemplar-based Image Translation”,
AAAI Conference on Artificial Intelligence (AAAI), 2023. [Link]
10. Jiwon Kim*, Yeongjo Min*, Daehwan Kim*, Gyuseong Lee, **Junyoung Seo**, Kwangrok Ryoo, Seungryong Kim, “ConMatch: Semi-Supervised Learning with Confidence-Guided Consistency Regularization”,
European Conference on Computer Vision (ECCV), 2022.
11. Jiwon Kim*, Kwangrok Ryoo*, **Junyoung Seo***, Gyuseong Lee*, Daehwan Kim, Hansang Cho, Seungryong Kim, “Semi-Supervised Learning of Semantic Correspondence with Pseudo-Labels”,
IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2022.

EDUCATION	Korea Advanced Institute of Science and Technology (KAIST)	Seoul, Korea
	<i>Integrated M.S./Ph.D. in Artificial Intelligence</i>	2024 - 2027 (<i>expected</i>)
	Korea University	Seoul, Korea
	<i>Integrated M.S./Ph.D. in Computer Science and Engineering</i>	2022 - 2024
	• Transferred to KAIST with supervisor (degree incomplete).	
	Korea University	Seoul, Korea
	<i>B.S. in Electrical Engineering</i>	2016 - 2022
ETC.	Academic Service (Reviewer): NeurIPS, ICLR, ICML, CVPR, ICCV, ECCV, AAAI, TPAMI, and WACV.	
	Military obligation: Republic of Korea Air Force, Feb. 2018 - Jan. 2020.	