

Minjung Shin

Ph.D. Candidate, Yonsei University · Expected Graduation: August 2027

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Education

Yonsei University

Seoul, Republic of Korea

Ph.D. in Artificial Intelligence (Integrated M.S./Ph.D. Program)

Mar. 2021 – Aug. 2027 (Expected)

- Advisor: Youngjung Uh – Visual Intelligence Lab
- GPA: 4.3 / 4.5

Kwangwoon University

Seoul, Republic of Korea

B.S. in Electronics & Communications Engineering

Mar. 2016 – Feb. 2021

GPA: 4.14 / 4.5

Research Summary

I work toward **real-world generation**: models that *understand* a 3D/4D scene while generating it, rather than producing pixels that merely look plausible. This has taken me from 3D-aware GANs and multi-view diffusion to **3D-aware video generation**, and currently to **video motion editing** – edits that respect the geometry and dynamics of the underlying scene.

Keywords — World Models • 3D/4D Scene Generation • Video Generation & Editing • Diffusion Models • Neural Rendering • Multi-View Synthesis • Physically Plausible Generation

Research Experience

SONY

Tokyo, Japan

Research Scientist Intern • Creative AI Lab

Jul. 2026 – Present

- Video motion editing.
- **Collaborators**: Wei-Yao Wang, Takashi Shibuya.

SONY / SONY AI

Remote

Research Collaborator • Creative AI Lab

Mar. 2026 – Jun. 2026

Video motion editing; collaboration that led to the on-site internship.

NAVER AI Lab, NAVER Corp.

Gyeonggi-do, Republic of Korea

Research Scientist Intern • Generative Research Team

Dec. 2022 – Jun. 2023

- 3D-aware generation; published at ICCV 2023 [C3].
- **Collaborators**: Hyunsu Kim, Jin-Hwa Kim – collaboration continued into MVCustom [C1] (ICLR 2026).

Electronics and Telecommunications Research Institute (ETRI)

Daejeon, Republic of Korea

Research Scientist Intern • AI Lab, Intelligent Robotics Division

Jan. 2019 – Feb. 2019

Real-time object detection and classification for vehicle environments; published at IEEE VTC 2019-Fall [C6].

Publications

* Equal contribution † Co-corresponding author

Peer-Reviewed Conference Papers

[C1] **MVCustom: Multi-View Customized Diffusion via Geometric Latent Rendering and Completion**

Minjung Shin, Hyunin Cho, Sooyeon Go, Jin-Hwa Kim, Youngjung Uh

ICLR 2026 • [arXiv:2510.13702](https://arxiv.org/abs/2510.13702)

[C2] **Eye-for-an-Eye: Appearance Transfer with Semantic Correspondence in Diffusion Models**

Sooyeon Go, Kyungmook Choi, Minjung Shin, Youngjung Uh

WACV 2026 • [arXiv:2406.07008](https://arxiv.org/abs/2406.07008)

- [C3] **BallGAN: 3D-aware Image Synthesis with a Spherical Background**
Minjung Shin, Yunji Seo, Jeongmin Bae, Young Sun Choi, Hyunsu Kim, Hyeran Byun, Youngjung Uh
ICCV 2023 • [arXiv:2301.09091](#)
- [C4] **Source-free Subject Adaptation for EEG-based Visual Recognition**
Pilhyeon Lee, Seogkyu Jeon, Sunhee Hwang, Minjung Shin, Hyeran Byun
IEEE BCI 2023 • [arXiv:2301.08448](#)
- [C5] **Inter-subject Contrastive Learning for Subject Adaptive EEG-based Visual Recognition**
Pilhyeon Lee, Sunhee Hwang, Jewook Lee, Minjung Shin, Seogkyu Jeon, Hyeran Byun
IEEE BCI 2022 • [arXiv:2202.02901](#)
- [C6] **Detectable Object-Sizes Range Estimation Based Multi-Task Cascaded CNNs in the Vehicle Environment**
Whui Kim, Hyun Kyun Choi, Minjung Shin
IEEE VTC 2019-Fall

Preprints & Under Review

- [P1] **BindEdit: Taming Attention Leakage for Precise Multi-Object Image Editing**
Chaewon Park, Soyoon Lee, Naeun Lee, Minjung Shin[†], Seogkyu Jeon[†], Kibeom Hong[†]
Preprint, 2026 • Co-corresponding author • [arXiv:2606.18906](#)
- [P2] **ASemConsist: Adaptive Semantic Feature Control for Training-Free Identity-Consistent Generation**
Shin Seong Kim*, Minjung Shin*, Hyunin Cho, Youngjung Uh
Preprint, 2025 • Joint first author • [arXiv:2512.23245](#)

Invited Talks

- | | | |
|-----------|--|--------------------------|
| Jun. 2025 | Fairness and Safety in Diffusion Models , Incheon National University (host: Prof. Sungho Park) | <i>Republic of Korea</i> |
| Jan. 2025 | 3D/4D Generation via Diffusion Models , Inha University (host: Prof. Pilhyeon Lee) | <i>Republic of Korea</i> |

Skills

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|--------------------|-----------------------------------|
| Programming | Python, PyTorch (DDP) |
| Tools | Agentic AI, Blender |
| Languages | Korean (Native), English (Fluent) |

Selected Funded Research Projects

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|--|-------------------------------------|
| Latent-space generative AI for precise multi-object image and video editing | <i>Sookmyung Women's University</i> |
| National Research Foundation of Korea (NRF) | Sep. 2025 – Aug. 2026 |
| AI vulnerability analysis and confidentiality assessment of generated content | <i>Yonsei University</i> |
| Institute of Information & Communications Technology Planning & Evaluation (IITP) | Mar. 2025 – Dec. 2025 |
| 2D–3D hybrid GANs with implicit neural representations | <i>Yonsei University</i> |
| National Research Foundation of Korea (NRF) | Jun. 2022 – Feb. 2024 |