Jinseo Jeong

Ph.D. student, Vision & Learning Lab, Seoul National University

Contact Information

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Research Interests

I study **controllable visual generation**, with a focus on image formation and light transport. This means realizing user intent while respecting physical and semantic scene constraints. I am particularly interested in the data and supervision needed to learn and evaluate such control.

Education

Seoul National University, Seoul, Korea — Mar 2020 – present
Integrated M.S. / Ph.D., Computer Science and Engineering
Adviser: Professor Gunhee Kim

Chung-Ang University, Seoul, Korea — Mar 2015 – Feb 2020
B.S., Integrative Engineering (graduated early, in 7 semesters)
Valedictorian, College of Engineering (GPA 4.43 / 4.5)

Industry Collaboration

Adobe Research — 2025 – present
Diffusion-based object compositing under spatially varying illumination; first-author paper LOCO accepted to NeurIPS 2026.

Samsung Electronics MX (Mobile Experience) — 2022 – 2024
Inverse rendering for virtual object insertion (2023 – 2024); image synthesis under novel viewpoints and lighting (2022 – 2023).

Publications

- LOCO: Local Light-Aware Object Compositing with Spatially Varying Illumination-Augmented Data
  Jinseo Jeong, Hyunsoo Kim, Junseo Koo, Junhyeog Yun, Gunhee Kim, and Soo Ye Kim
  NeurIPS 2026 Joint work with Adobe Research
  Makes an inserted object match the local lighting of a photo, using training data augmented with spatially varying illumination.

- Gaussian Blending: Rethinking Alpha Blending in 3D Gaussian Splatting
  Junseo Koo, **Jinseo Jeong**, and Gunhee Kim
  AAAI 2026 [paper] [code]
  Replaces scalar alpha blending in 3D Gaussian Splatting with spatially varying alpha and transmittance, so fine detail survives zooming in and out.

- ESR-NeRF: Emissive Source Reconstruction Using LDR Multi-view Images
  Jinseo Jeong, Junseo Koo, Qimeng Zhang, and Gunhee Kim
  CVPR 2024 [paper] [code]
  Reconstructs in-scene emissive sources from LDR multi-view images, separating emitted light from reflected light.

- Continual Learning on Noisy Data Streams via Self-Purified Replay
  Jinseo Jeong*, Chris Dongjoo Kim*, Sangwoo Moon, and Gunhee Kim
  ICCV 2021 * Equal contribution [paper] [code]
  Continual learning that stays robust to noisy labels via a self-purified replay buffer.

- Imbalanced Continual Learning with Partitioning Reservoir Sampling
  Chris Dongjoo Kim, **Jinseo Jeong**, and Gunhee Kim
  ECCV 2020 [paper] [code]
  Continual multi-label learning on long-tailed streams via head- and tail-balanced replay sampling.

- 360 Image based Mixed Reality and User Interaction
  Jinseo Jeong, Sanghyun Kim, and Kyoungju Park
  HCI Korea 2018 Domestic conference

- Content Preserving Style Transfer via Foreground Separation Algorithm
  Jinseo Jeong, Sanghyun Kim, Eunme Ju, Myoungjin Kim, and Youngbin Kim
  KCGS 2018 Domestic conference

Research Internships

Vision & Learning Lab — Jan 2019 – Feb 2020
Seoul National University · Prof. Gunhee Kim

Intelligent Information Processing Lab — Apr – Aug 2018
Chung-Ang University · Prof. Youngbin Kim

Motion Graphics Lab — Dec 2016 – Feb 2018
Chung-Ang University · Prof. Kyoungju Park

Skills

Research: Inverse rendering and relighting; neural rendering (NeRF, 3D Gaussian splatting); diffusion-based object compositing; continual learning under noisy and imbalanced data.

Programming & Tools: Python, C++, PyTorch, OpenGL, Blender.

Languages: Korean (native), English (fluent; New TEPS 471, Level 1).

Honors & Awards

- **Top Reviewer**, NeurIPS 2026
- Samsung MX Appreciation Award for Industry-Academia Project, 2023
- Samsung Display Paper Award (Gold Prize), 2020
- **Deputy Prime Minister and Minister of Education Award**, 2019
  Outstanding education volunteering; team leader.

Service & Leadership

Reviewer

Conferences: CVPR 2024–2026, CVPRW 2021, ECCV 2026, NeurIPS 2025–2026, AAAI 2025, BMVC 2026, ACM MM 2025–2026 (incl. Dataset Track 2026)
Journal: IEEE TCSVT 2025.

Invited Talk

Bringing Artificial Intelligence to Mixed Reality, Department of Artificial Intelligence, Chung-Ang University, 2024.

Leadership

Lab server administrator; department student representative (building relocation).