

JUNYOUNG SEO

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RESEARCH INTEREST

Generative Models, 3D/Video Representations, Visual Correspondence

EDUCATION

Korea University Mar. 2022 - Present
Integrated M.S./Ph.D. in Computer Science and Engineering *Seoul, Korea*

Korea University Mar. 2016 - Feb. 2022
B.S. in Electrical Engineering *Seoul, Korea*

EXPERIENCE

SonyAI, Sony Research Mar. 2024 - May 2024 (Expected)
Research Intern Remote

SonyAI, Sony Research Dec. 2023 - Feb. 2024
Research Intern Tokyo, Japan
Project: Generative Models for 3D Scene

Queen Mary University of London Jun. 2023 - Aug. 2023
Visiting Researcher London, UK
Work with Dr. Changjae Oh

CVLAB, Korea University Jan. 2021 - Feb. 2022
Research Intern Seoul, Korea
Supervised by Prof. Seungryong Kim

PUBLICATION

Pre-print / Under Review

Junyoung Seo, Susung Hong, Wooseok Jang, Min-Seop Kwak, Hyeonsu Kim, Doyup Lee, Seungryong Kim, “**Retrieval-augmented Score Distillation for Text-to-3D Generation**”, *arXiv*, 2024.
Collaborated with **Runway**. [Project Page]

Susung Hong, **Junyoung Seo**, Sunghwan Hong, Heeseong Shin, Seungryong Kim, “Large Language Models are Frame-level Directors for Zero-shot Text-to-Video Generation”, *arXiv*, 2023.

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”, *arXiv*, 2022. [Project Page]

International Conference

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.
Collaborated with **NAVER AI Lab**. [Project Page]

Gyeongnyeon Kim*, Wooseok Jang*, Gyuseong Lee*, Susung Hong, **Junyoung Seo**, Seungryong Kim, “DAG: Depth-Aware Guidance with Denoising Diffusion Probabilistic Models”, *IEEE CVPR Workshop*

- *Generative Models for Computer Vision (CVPRW)*, 2023.

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.

Collaborated with **NAVER AI Lab**. [Project Page]

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.

Jiwon Kim*, Kwangrok Ryoo*, **Junyoung Seo***, Gyuseong Lee*, Daehwan Kim, Hansang Cho, Seungryong Kim, “Semi-Supervised Learning of Semantic Correspondence with Pseudo-Labels”, *IEEE Conf. Computer Vision Pattern Recognition (CVPR)*, 2022.

ACADEMIC SERVICES

Reviewer

- Computer Vision and Pattern Recognition (CVPR) 2023, 2024
- IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)

HONORS

Korea University, Korea <i>Award for Academic Excellence, 2st Semester, 2021</i>	Jan. 2022
Korea University, Korea <i>Award for Academic Excellence, 1st Semester, 2021</i>	Jul. 2021
Korea Electric Power Corporation, Korea <i>KEPCO Scholarship</i>	Mar. 2021
Incorporated Association GreenLight and HYUNDAI AutoEver, Korea <i>3rd Prize, Barrier-free App Development Contest</i>	Feb. 2021
HYUNDAI MOBIS, Korea <i>Special Award in Self-driving RC Car Development, Korea Embedded Software Contest</i>	Jan. 2021
Korea University, Korea <i>Award for Academic Excellence, 2st Semester, 2020</i>	Jul. 2021
Korea University, Korea <i>Professor's Association Seokrimhoe Scholarship</i>	Sep. 2020
Korea University, Korea <i>Award for Academic Excellence, 1st Semester, 2020</i>	Jul. 2020
SK, Korea <i>Grand Prize in App Development, SK Smarteen App Challenge</i>	Dec. 2013

PROJECTS

Samsung Electro-Mechanics <i>Automation of Deep Learning Model Update using Unlabeled Data</i>	2021-2022
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MILITARY OBLIGATION

Repulbic of Korea Air Force

Feb. 2018 - Jan. 2020