

Seonghu Jeon

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 in Seonghu Jeon [🔗](#)

Research Interests

My research centers on how vision models represent motion, space, and structure in ways that are interpretable and aligned with human perception. I am particularly interested in generative and predictive models—such as video diffusion, 3D vision, and world models—and how their internal representations support temporally and geometrically consistent understanding of dynamic scenes.

- Human-aligned representation learning
- Generative modeling with video diffusion and 3D scene synthesis
- Evaluating model through perceptual and semantic metrics

Education

Korea University Seoul, Korea
B.S. in Computer Science and Engineering Mar 2022 – Feb 2026 (expected)

- GPA: 4.50 / 4.50
- Completed 107 credits as of 6th semester

Experience

Undergraduate Internship Seoul, Korea
CVLAB, Korea University → KAIST Dec 2023 – Present

- Conducting researches and studies on motion customization and 3D Scene Generation
- Transferred with supervisor in August 2024

Publication

[C01] ReMoTE: A Benchmark for Object Motion Transfer
The International Technical Conference on Circuits/Systems, Computers, and Communications (ITC-CSCC), 2025
Seonghu Jeon, Jinhyuk Choi, Junghyun Hwang, Seungryong Kim

Honors & Awards

2nd Prize, AISP 2025 (Undergraduate AI Paper Competition) June 2025
The Institute of Electronics and Information Engineers (IEIE)

- Best Paper Award for the paper titled *Revisiting Flow-Conditioned Motion Transfer via Pseudo-Flow and Consecutive Frame Attention*.

1st Prize, Korea-Yonsei University Datathon Apr 2025
Flock.io

- Finetuned phi-3.5 for advancing AI-Driven smart contract security
- Developed few-shot synthetic data generation pipeline

Merit-based Scholarship, Sangah Scholarship Foundation	Spring 2024
◦ Scholarship awarded to outstanding students who are expected to lead the gaming and IT industries.	
National Science & Technology Scholarship, Korea Student Aid Foundation	Spring 2024
◦ 2-year full scholarship for tuition fee, given by government	
Merit-based Scholarship, Woonhae Scholarship Foundation	Spring 2024
◦ Scholarship awarded to students identified as global talents to lead national economic development.	
Grand Prize, iNThon (Korea University College of Informatics Datathon)	Nov 2023
◦ Developed a language model for commonsense reasoning with data augmentation and re-ranking method	
◦ Prize of ₩3,000,000 and short-term study trip to Silicon Valley	
President's List, Korea University	Spring 2023, Fall 2023
Dean's List, Korea University	Fall 2022
Semester High Honors, Korea University	Spring 2022, Fall 2022, Spring 2023, Fall 2023, Spring 2024, Fall 2024, Spring 2025

Extracurricular Activities

AIKU (Korea University AI Society)	Seoul, Korea
<i>Lead (Dec 2023 – Jul 2024), Academic Administrator (Jan 2023 – Dec 2023)</i>	Jul 2022 – Present
◦ Participated as a founding junior member and elected as the 3rd lead	
◦ Delivered lectures on ML/DL basics, Attention & Transformers, Generative Models, 3D Vision	
Google Developer Groups on Campus, Korea University	Seoul, Korea
<i>DevRel Lead (Jul 2024 – Jun 2025), AI Core Member (Jan 2023 – Present)</i>	Sep 2022 – Present
◦ Participated as AI engineer and instructor for junior members	
Korea University Central Student Council, Nanal	Seoul, Korea
<i>Public Relations & Communication Division</i>	Apr 2024 – Dec 2024
◦ Created social-media posts and videos to engage Korea University students	
Korea University College of Informatics Student Council, Ieum	Seoul, Korea
<i>Communication & Welfare Division</i>	Mar 2025 – Present
◦ Produced social-media content to connect with the student body	

Projects

Pioneering Motion Code Generation: A Self-Rectifying Pipeline for Bootstrapping High-Fidelity Animation Datasets	Mar 2025 – Jun 2025
◦ COSE407 (Individual Research Project) Term project	
◦ A research for developing automated dataset generation pipeline for GUI motion code with VLMs	
Horang Studio	Aug 2023 – Sep 2023
◦ AI profile picture generation service for Korea, Yonsei University student using ID preservation Stable Diffusion, supported by Kakao Brain	
◦ Contribution to idea research, pipeline modeling and prompt engineering	

Latent Diffusion Models for Domain Adaptation

Aug 2023 – Oct 2023

- Finetuned semantic map-conditioned LDMs with ControlNet for unsupervised and unpaired synthetic-to-real image translation
- Industry-University cooperation project with Korea University CVLAB and Hyundai Mobis.
- Participated as AIKU Team Leader, contribution to code implementation

DiscoRF

Mar 2023 – Jun 2023

- Proposed GAN-based NeRF training method for better high-frequency details
- DATA302 (Introduction to Computer Vision and its Application) Term project, Contribution to code implementation, experiments, etc.

IConZIC

Mar 2023 – Jun 2023

- Proposed Image-Conditioned Zero-shot Image Captioning Model (IConZIC), contribution to faster and stable generation of image caption by utilizing Gibbs sampling and Masked Vision-Language Model
- COSE461 (Natural Language Processing) Term project. Contribution to idea development, code implementation, experiments, etc.

MelitsUp / @tune

Sep 2022 – Aug 2023

- Developed a music recommendation service, using pretrained VLM, BERT-based sentence embedding model, and LLM-based Lyrics Augmentation
- Participated as a team leader, contribution to idea planning, data collection, model implementation and training, and prototyping.

Courseworks

Computer Science and Engineering:

- **Foundational:** Computer Programming (C, Python), Data Structures, Algorithms, Discrete Mathematics, Linear Algebra, Probability and Statistics,
- **Systems:** Computer Architecture, Digital Logic Design, Programming Language, Operating System, Database, Computer Network,

Artificial Intelligence and Computer Vision:

- **Foundational:** Machine Learning, Artificial Intelligence, Deep Learning, Data Science, Computer Graphics, Reinforcement Learning, Information Theory and Inference Learning
- **Applications:** Introduction to Computer Vision and its Application, Self-driving Cars, Natural Language Processing, Interactive Visualization, Advanced Machine Learning

Human-Computer Interaction:

- Introduction to Human-Computer Interaction, User Experience and Artificial Intelligence

Skills

Programming Languages: Python, C, C++, JavaScript (Beginner), Dart (Beginner), React (Beginner)

Frameworks & Tools: PyTorch, Git, Flutter (Beginner)

Design: Figma, Premiere Pro, After Effect, Photoshop

Languages: Korean (Native), English (Professional; TOEIC 970/990, June 2025)