# INWOO HWANG

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#### Education

Seoul National UniversitySeoul, KoreaPh.D. in Electrical and Computer Engineering03/2022 - CurrentB.S. in Electrical and Computer Engineering03/2016 - 02/2022

\* military service completed (12/2017 - 12/2019)

Seoul Science High School for the gifted

Major: Mathematics 03/2013 - 02/2016

## Honors and Awards

Excellent Research Talent Fellowship, BK21.

2023

Seoul, Korea

The Hyundai Motor Scholarship (Ph.D. scholarship, \$40,000), Chung Mong-Koo foundation. 2022 – Current

The Presidential Science Scholarship (Field: Mathematics, \$40,000), Ministry of Science and ICT. 2016 – 2022

Gold medal, University Mathematics Competition, for mathematics major.

2020

Silver medal, University Mathematics Competition.

2019

15th place, Simon Marais Mathematics Competition, Undergraduate Mathematics Competition Asia-Pacific.

2019

Excellence award, High school Mathematics Competition, Final Korean Mathematical Olympiad (FKMO). 2015

## Work Experience

# Computational Imaging Team, Snap Research

New York City, New York

Research Intern

05/2024 - 09/2024

- Working on physically plausible reconstruction of human motion and scenes from real-world videos.
- Mentors: Bing Zhou, Chuan Guo, Jian Wang.

#### **Publications**

SceneMI: Motion In-betweening for Modeling Human-Scene Interaction	ArXiv 2025
Inwoo Hwang, Bing Zhou, Young Min Kim, Jian Wang, and Chuan Guo	paper project
research keywords: Motion Synthesis, Human-Scene Interaction, Diffusion Models, 3D Reconstruction	
Motion Synthesis with Sparse and Flexible Keyjoint Control	ArXiv 2025
Inwoo Hwang, Jinseok Bae, Donggeun Lim, and Young Min Kim	paper project
research keywords: Motion Synthesis, Spatial Control, Diffusion Models	
A Survey on Human Interaction Motion Generation	ArXiv 2025
Kewei Sui, Inwoo Hwang*, Anindita Ghosh*, Jian Wang, and Chuan Guo	paper project
research keywords: Human Interaction	
Less is More: Improving Motion Diffusion Models with Sparse Keyframes	ArXiv 2025
Jinseok Bae, Inwoo Hwang, Young Yoon Lee, Ziyu Guo, Joseph Liu,	
Yizhak Ben-Shabat, Young Min Kim, and Mubbasir Kapadia	paper project

### Goal-Driven Human Motion Synthesis in Diverse Tasks

CVPRW 2025

Inwoo Hwang, Jinseok Bae, Donggeun Lim, and Young Min Kim

research keywords: Motion Synthesis, Diffusion Models

paper project

research keywords: Motion Synthesis, Spatial Control, Human-Scene Interaction, Diffusion Models

# Versatile Physics-based Character Control with Hybrid Latent Representation

Eurographics 2025

Jinseok Bae, Jungdam Won, Donggeun Lim, Inwoo Hwang, and Young Min Kim

research keywords: Physics-based Animation

paper project

Text2Scene: Text-driven indoor scene stylization with part-aware details

Inwoo Hwang, Hyeonwoo Kim and Young Min Kim

research keywords: 3D Stylization

Eurographics 2023, Short

paper project

CVPR 2023, Highlight

paper project

Inwoo Hwang, Hyeonwoo Kim, Donggeun Lim, Inbum Park and Young Min Kim

Text2PointCloud: Text-Driven Stylization for Sparse PointCloud

research keywords: 3D Stylization

Ev-NeRF: Event Based Neural Radiance Field

Inwoo Hwang, Junho Kim, and Young Min Kim

research keywords: 3D Reconstruction, Neural Radiance Field, Event Based Vision

**WACV 2023** 

paper project

Ev-TTA: Test-Time Adaptation for Event-Based Object Recognition

Junho Kim, Inwoo Hwang, and Young Min Kim

research keywords: Test-Time Adaptation, Event Based Vision

CVPR 2022

paper project

MaskGrasp: Mask-based Grasping for Scenes with Multiple General Real-world Objects

Junho Lee, Junhwa Hur, Inwoo Hwang, and Young Min Kim research keywords: Object Recognition, Robot Manipulation

paper project

IROS 2022

Research Experience

Laboratory for Imaging Science and Technology, Seoul National University

Research Intern

Seoul, Korea

12/2020 - 02/2021

• Worked on MRI Image Reconstruction.

Robot Learning Laboratory, Seoul National University

08/2020 - 12/2020

Seoul, Korea

• Worked on 3D object detection and robot manipulation.

Academic Activities

Reviewer: CVPR 2023, 2024, 2025 ICCV 2023, 2025, 3DV 2025, ICRA 2023, RA-L 2023