

# Byeongjun Park

PH.D. CANDIDATE @ KAIST · COMPUTER VISION

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## Education

### KAIST (Korea Advanced Institute of Science and Technology)

INTEGRATED M.S. & PH.D. IN DEPARTMENT OF ELECTRICAL ENGINEERING

- Advisor: Changick Kim
- GPA: 4.05/4.3

Daejeon, Korea

Mar. 2020 - Aug. 2025

### KAIST (Korea Advanced Institute of Science and Technology)

B.S. IN DEPARTMENT OF ELECTRICAL ENGINEERING

- Got a National Academic Excellence Scholarship (Science and Engineering, Korea)
- GPA: 3.75/4.3 - Cum Laude

Daejeon, Korea

Mar. 2015 - Feb. 2020

## Research Interest

- Diffusion Architecture** Reimagine diffusion training as multi-task learning and synergize multiple denoising tasks. [C4] [C6]  
**One-Image-to-3D** Solve practical problems in generating 3D scenes or objects from a single image. [J1] [C5]  
**Text-to-3D Scene** Currently, I am interested in direct generation of 3D Gaussian Splatting only from text prompts. [P3]

## Publication

(C: conference, J: journal, P: preprint, \*: Equal Contribution)

### JOURNAL

#### [J1] Bridging Implicit and Explicit Geometric Transformation for Single-Image View Synthesis

2024

IEEE TRANSACTIONS ON PATTERN ANALYSIS AND MACHINE INTELLIGENCE (TPAMI)

Byeongjun Park\*, Hyojun Go\*, Changick Kim

### CONFERENCE

#### [C6] Switch Diffusion Transformer: Synergizing Denoising Tasks with Sparse Mixture-of-Experts

2024

EUROPEAN CONFERENCE ON COMPUTER VISION (ECCV)

Byeongjun Park, Hyojun Go, Jinyoung Kim, Sangmin Woo, Seokil Ham, Changick Kim

#### [C5] HarmonyView: Harmonizing Consistency and Diversity in One-Image-to-3D

2024

IEEE/CVF COMPUTER VISION AND PATTERN RECOGNITION CONFERENCE (CVPR)

Sangmin Woo\*, Byeongjun Park\*, Hyojun Go, Jinyoung Kim, Changick Kim

#### [C4] Denoising Task Routing for Diffusion Models

2024

INTERNATIONAL CONFERENCE ON LEARNING REPRESENTATIONS (ICLR)

Byeongjun Park\*, Sangmin Woo\*, Hyojun Go\*, Jinyoung Kim\*, Changick Kim

#### [C3] Point-DynRF: Point-based Dynamic Radiance Fields from a Monocular Video

2024

IEEE/CVF WINTER CONFERENCE ON APPLICATIONS OF COMPUTER VISION (WACV)

Byeongjun Park, Changick Kim

#### [C2] Temporal Flow Mask Attention for Open-Set Long-Tailed Recognition of Wild Animals in Camera-Trap Images

2022

IEEE INTERNATIONAL CONFERENCE ON IMAGE PROCESSING (ICIP)

Jeongsoo Kim, Sangmin Woo, Byeongjun Park, Changick Kim

#### [C1] Fine-Grained Multi-Class Object Counting

2021

IEEE INTERNATIONAL CONFERENCE ON IMAGE PROCESSING (ICIP)

Hyojun Go, Junyoung Byun, Byeongjun Park, Myung-Ae Choi, Seunghwa Yoo, Changick Kim

PREPRINT

[P3] SplatFlow: Multi-View Rectified Flow Model for 3D Gaussian Splatting Synthesis 2024

ARXIV

Hyojun Go\*, Byeongjun Park\*, Jiho Jang, Jin-Young Kim, Soonwoo Kwon, Changick Kim

[P2] Diffusion Model Patching via Mixture-of-Prompts 2024

ARXIV

Seokil Ham\*, Sangmin Woo\*, Jin-Young Kim, Hyojun Go, Byeongjun Park, Changick Kim

[P1] DiffRef3D: A Diffusion-based Proposal Refinement Framework for 3D Object Detection 2023

ARXIV

Se-Ho Kim\*, Inyong Koo\*, Inyoung Lee, Byeongjun Park, Changick Kim

Patents

Method and apparatus with scene flow estimation 2022

US PATENT

US20220301190A1

Youngjun Kwak, Taekyung Kim, Changick Kim, Byeongjun Park, Changbeom Park

Work Experience

Koh Young Technology Seoul, Korea

AI RESEARCH INTERN

Mar. 2018 - aug. 2018

- I was a member of the research team working on an AI-based solution for optimizing the process of mounting chips on PCB boards.

Honors & Awards

2021 **Best Paper**, Samsung Best Paper Award in IEIE Autumn Annual Conference Korea

2024 **Invited Talk**, Recent Trends in 3D Content Creation (ETRI) Korea