

Haeyun Choi

✉ haeyun0114@gmail.com 💻 haeyun-choi.github.io 🌐 github.com/haeyun-choi

Research Interests

My research interests span various topics in computer vision, emphasizing real-world applications. I am currently focused on robust 3D scene representations and rendering techniques that remain effective under challenging conditions. The goal of my research is to move beyond idealized assumptions, embracing the complexities of real-world scenarios.

Education

PhD	University of Virginia , Data Science (Vision AI) • Advisors: Prof. Cheng Peng ✉ and Prof. Lei Li ✉	Aug 2026 – Present
MS	POSTECH , Artificial Intelligence • Advisor: Prof. Sunghyun Cho ✉ • Thesis: "Exploiting Deblurring Networks for Radiance Fields"	Mar 2023 – Feb 2025
BS	Korea University , Biomedical Engineering • Advisor: Prof. Kisung Lee ✉	Mar 2015 – Aug 2022

Work Experience

KT R&D Center , Research Scientist • AI spatial assistant for smart glasses with KT's proprietary MLLM • Vision-language-action models for robotic server-room inspection	Seoul, South Korea Mar 2025 – Jul 2026
POSTECH Institute of Artificial Intelligence , Research Scientist • Voice conversion using mel-spectrogram representation • Video shakiness detection using optical flow statistics	Pohang, South Korea May 2022 – Feb 2023

Publications

Cascaded 2D-to-3D Multi-view Consistency for 3D Gaussian Splatting from Two Blurry Images Haeyun Choi* , MinHyuk Jang*, I-Gil Kim Under review	2026
Exploiting Deblurring Networks for Radiance Fields Haeyun Choi , Heemin Yang, Janghyuk Han, Sunghyun Cho IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR 2025) Workshop on Image Processing and Image Understanding (IPIU 2025, oral)	2025
Optical Flow-based Shakiness Detection in Dash-cams for Hit-and-Run Accident Analysis Haeyun Choi , Sunghyun Cho Workshop on Image Processing and Image Understanding (IPIU 2024)	2024
AutoCycle-VC: Towards Bottleneck-Independent Zero-Shot Cross-Lingual Voice Conversion Haeyun Choi , Jio Gim, Yuho Lee, Youngin Kim, Young-Joo Suh arXiv preprint	2023

Awards and Honors

Outstanding Paper Award, IPIU 2025 (link) ↗	2025
KT-POSTECH AI Expert Program Scholarship \$7,800 x 4 (link) ↗	2023 - 2025
Excellence Prize, POSCO Youth Academy AI Competition	2022
Grand Prize, AI for Health & SDGs Competition (link) ↗	2021
Hongsan Scholarships \$1,700	2021
Mirae Asset Exchange Student Scholarships \$3,100 (link) ↗	2020

Professional Service

Reviewer (Journal)

- International Journal of Computer Vision (IJCV) 2026

Patent

Korea Patent Application

- (P20250358) Depth-based 3D scene reconstruction method from multiple defocus blur images with a radiance-field model and computing device thereof 2025
- (P20260170) Method for reconstructing a three-dimensional scene using a plurality of blurred images and computing device therefor 2026

Teaching Experience

POSCO Youth AI Bigdata Academy (Video [↗](#))

2023

- Teaching Assistant (Topic: Computer Vision)
- Led hands-on sessions and mentored AI projects

Extracurricular Activities

Team-Mate Mentorship Program (K-Digital Training [↗](#), KCCI [↗](#))

Jul 2024 – Dec 2024

- Selected as 1st cohort mentor [↗](#) in a national career development program
- Peer mentorship program, supporting junior trainees in career navigation
- Engaged in job camps [↗](#) and social contribution programs [↗](#)

Military Service (Republic of Korea Air Force)

Aug 2016 – Aug 2018

- Sergeant as Operations
- Managed mission planning and scheduling for search and rescue operations

Student Representative (Biomedical Engineering, Korea University)

Mar 2015 – Aug 2016

- Volunteered as student representative
- Helped organize departmental events and student activities

Skills & Languages

Skills Python, Blender, MATLAB

Languages Korean: Native, English: Fluent (TOEFL 100, TOEIC 925)