Seokjun Choi

Contact

INFORMATION LinkedIn: https://www.linkedin.com/in/seokjun-choi-734587190

Github: https://github.com/MichaelCSJ

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CITIZENSHIP Republic of Korea

RESEARCH INTERESTS

Computational Illumination, Optics, Inverse Rendering

EDUCATION

POSTECH, Pohang University of Science and Technology, Pohang, Korea.

Ph.D. Student. Advisor Seung-Hwan Baek

The Department of Computer Science and Engineering,

Feb. 2022 - Now

Chung-Ang University, Seoul, Korea. The Degree of Bachelor of Engineering in

School of Integrative Engineering,

School of Software,

Feb. 2015 - Aug. 2021

• GPA: 4.11/4.5 (MAGNA CUM LAUDE)

Publications

Seokjun Choi, Hoon-Gyu Chung, Yujin Jeon, Giljoo Nam and Seung-Hwan Baek "A Real-world Display Inverse Rendering Dataset", The IEEE/CVF International Conference on Computer Vision 2025(ICCV 2025).

Hoon-Gyu Chung, **Seokjun Choi**, and Seung-Hwan Baek "Differentiable Inverse Rendering with Interpretable Basis BRDFs", *The IEEE/CVF Conference on Computer Vision and Pattern Recognition 2025(CVPR 2025)*.

Juhyung Choi, Jinnyeong Kim, **Seokjun Choi**, Jinwoo Lee, Samuel Brucker, Mario Bijelic, Felix Heide, Seung-Hwan Baek "Dual Exposure Stereo for Extended Dynamic Range 3D Imaging", *The IEEE/CVF Conference on Computer Vision and Pattern Recognition* 2025(CVPR 2025).

Seokjun Choi, Seungwoo Yoon, Giljoo Nam, Seungyong Lee and Seung-Hwan Baek "Differentiable Display Photometric Stereo", *The IEEE/CVF Conference on Computer Vision and Pattern Recognition 2024(CVPR 2024)*.

Hoon-Gyu Chung, **Seokjun Choi**, and Seung-Hwan Baek "Differentiable Point-based Inverse Rendering", *The IEEE/CVF Conference on Computer Vision and Pattern Recognition 2024(CVPR 2024)*.

Suhyun Shin, **Seokjun Choi**, Felix Heide, and Seung-Hwan Baek "Dispersed Structured Light for Hyperspectral 3D Imaging", *The IEEE/CVF Conference on Computer Vision and Pattern Recognition* 2024(CVPR 2024).

EXPERIENCE

Military services in Republic of Korea Air Force, Jul. 2016 - Jul. 2018 15th Special Activity Wing, Republic of Korea. Sergeant in charge of Administration, 256th Tactical Airlift Squadron, 15th Combat Group.

Awards and Honors

• da Vinci Scholarship V, Awarded from Chung-Ang University,

2015 - 2020

- MACH Extreme-Short Film Festival, Awarded from 2018 CAU College ICT Engineering Academic festival, **2018**
- MACH Game-Art Contest,
 Awarded from 2018 CAU College ICT Engineering Academic festival,
 2018

RESEARCH PROJECT EXPERIENCE

Neural Rendering for Acquisition of Realistic 3D Assets

Mar. 2023 - Dec. 2023

• Sponsored by SAIT.

Performance Analysis of 2D Image-Based Semantic Segmentation Algorithm

Jun. 2022 - Nov. 2022

• Sponsored by ETRI.

Visual Memory Network-based Cognitive Imitation

Apr. 2020 - Nov. 2020

• Sponsored by ETRI. The goal of the project is developing the network compression algorithm for surveillance cameras.

Teaching

Teaching Assistant

- POSCO AI Expert, 2022/2023/2024
- Data Structure, POSTECH, 2023 Fall
- Computational Imaging, POSTECH, 2022 Spring

SKILLS

Technical Skills

- Optimization (PyTorch)
- Camera Control (PySpin)
- Image Signal Processing
- Rendering (OpenGL/GLSL)

Languages

- Korean(Native)
- English(Conversational)