# Seokjun Choi

CONTACT
INFORMATION

LinkedIn: https://www.linkedin.com/in/seokjun-choi-734587190
Github: https://github.com/MichaelCSJ
*Cell:* +82-10-3314-4139
*E-mail:* seokjun@postech.ac.kr

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**).*

PATENTS

**International Patents:**

1. Seung-Hwan Baek, **Seokjun Choi**, Seungwoo Yoon, Seungyong Lee, Jinwoo Park, Nahyup Kang, Jiyeon Kim, "*Method of determining illumination pattern for three-dimensional scene and method and apparatus for modeling three-dimensional scene*", US20240394964A1.

**Korean Patents:**

1. 백승환, 신수현, **최석준**, "*3차원 초분광 이미징 시스템, 방법 및 장치*", 10-2024-0072842.

2. 박진우, 백승환, 강나협, 김지연, 윤승우, 이승용, **최석준**, "3차원 장면을 위한 조명 패턴 결정 방법, 및 3차원 장면을 모델링하는 방법 및 장치", KR1020230150041

TEACHING

**Teaching Assistant**
- POSCO AI Expert, POSTECH, 2022/2023/2024
- (CSED490F) Computational Signal Processing, POSTECH, 2025 Fall
- (CSED233) Data Structure, POSTECH, 2023 Fall
- (CSED700G) Computational Imaging, POSTECH, 2022 Spring

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.

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.

Skills

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

*Languages*
- Korean (Native)
- English (Advanced)