Eunsue Choi

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Research interests

Computational Imaging, Wave Optics, Metasurfaces, End-to-end optimization, Computer Vision, Computer Graphics, Cameras, Displays, Lenses, Sensing, and VR/AR

Education

POSTECH   Pohang, S.Korea
MS-PhD in Computer Science and Engineering   Sep.2022 – Present
Advisor: Prof. Seung-Hwan Baek

POSTECH   Pohang, S.Korea
BS in Computer Science and Engineering   Mar.2018 – Aug.2022
Graduated with Magna Cum Laude

Chungnam Science High School   Gongju, S.Korea
Early Graduation   Mar.2016 – Feb.2018

Honors and Awards

Outstanding M.S. Thesis Award, Korea Computer Graphics Society   2024
Alchemist R&D Fellowship, POSTECH   2024
Outstanding Interdisplinary Research Award, POSTECH   2024
Finalist, DEFCON 27th CTF Hacking Competition World Final   2019

Publications

[1] 360 Structured Light with Learned Metasurfaces [link]
Eunsue Choi*, Gyeongtae Kim*, JooyeongYun, Yujin Jeon, Junsuk Rho+, Seung-Hwan Baek+
Nature Photonics, 2024
* Featured in Nature Computational Science's special issue, highlighted in editorial and research highlights

[2] Spectral and Polarization Vision: Spectro-polarimetric Real-world Dataset [link]
Yujin Jeon*, **Eunsue Choi***, Youngchan Kim, Yunseong Moon, Khalid Omer, Felix Heide, Seung-Hwan Baek, (* equal contributions)
CVPR 2024, **highlight**

[3] Limitations of Hyperspectral Imaging from RGB Images: A Data Perspective [link]
Qiang Fu, Matheus Souza, **Eunsue Choi**, Suhyun Shin, Seung-Hwan Baek, Wolfgang Heidrich
Computational Optical Sensing and Imaging, Optica, 2024

| TALKS | **Seeing beyond conventional light with wave optics** | July.2024 |
| | Korea Computer Graphics Society, Award Talk | |

| Teaching experience | Teaching assistant, Data Structure, POSTECH | Spring 2024 |
| | Teaching assistant, Data Structure, POSTECH | Fall 2023 |