

# RYOTA MAEDA

Himeji, Hyogo, Japan

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github.com/elerac

## Research Interests

- Computer Vision
- Polarimetric Imaging
- Computer Graphics
- Light Transport Acquisition
- Computational Imaging
- 3D Reconstruction

## Education

### University of Hyogo

Ph.D. of Engineering

Apr. 2022 –

### University of Hyogo

Master of Engineering

Apr. 2020 – Mar. 2022

### University of Hyogo

Bachelor of Engineering

Apr. 2016 – Mar. 2020

## Publications

### Polarimetric Light Transport Analysis for Specular Inter-reflection

May. 2024

Ryota Maeda, Shinsaku Hiura

IEEE Transactions on Computational Imaging, 2024

### Refinement of Hair Geometry by Strand Integration

Oct. 2023

Ryota Maeda, Kenshi Takayama, Takafumi Taketomi

Computer Graphics Forum (Proc. of Pacific Graphics 2023)

### EpiScope: Optical Separation of Reflected Components by Rotation of Polygonal Mirror

Dec. 2021

Ryota Maeda, Shinsaku Hiura

SIGGRAPH Asia 2021 Technical Communications

## Research Experience

### NAIST Optical Media Interface Lab

Aug. 2018

Research Intern

*Mentors: Prof. Hiroyuki Kubo and Prof. Yasuhiro Mukaigawa*

### CyberAgent AI Lab

Aug. 2022 – Sep. 2022

Research Intern

*Mentors: Kenshi Takayama and Takafumi Taketomi*

### POSTECH Computer Graphics Lab

Mar. 2024 – Feb. 2025

Visiting Research

*Mentors: Prof. Seung-Hwan Baek*

## Software on GitHub

**Polanalyser** | ☆144 stars

Polarization image analysis tool. Demosaicing, Stokes vector, Mueller matrix.

**structuredlight** | ☆130 stars

Generate and Decode structured light. Binary, Gray, XOR, Ramp, Phase-Shifting, Stripe.

**EasyPySpin** | ☆97 stars

cv2.VideoCapture like wrapper for FLIR Spinnaker SDK.

## Skills

**Programming:** Python, C/C++, NumPy, OpenCV, PyTorch

**Embedded System:** Arduino, Mbed

**Design and CAD:** Photoshop, Lightroom, Illustrator, Fusion 360

**Language:** Japanese (native), English (advanced)

*Last updated: September 15, 2024*