Ryota Maeda

Himeji, Hyogo, Japan

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Research Interests

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

Education

University of Hyogo Apr. 2022 –
Ph.D. of Engineering

University of Hyogo Apr. 2020 – Mar. 2022
Master of Engineering

University of Hyogo Apr. 2016 – Mar. 2020
Bachelor of Engineering

Publications

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

Optical Media Interface Lab, NAIST Aug. 2018
Research Intern
Mentors: Hiroyuki Kubo and Yasuhiro Mukaigawa

CyberAgent AI Lab Aug. 2022 – Sep. 2022
Research Intern
Mentors: Kenshi Takayama and Takafumi Taketomi

Software on GitHub

Polanalyser | ☆ 106 stars
Polarization image analysis tool. Demosaicing, Stokes vector, Mueller matrix.

structuredlight | ☆ 112 stars
Generate and Decode structured light. Binary, Gray, XOR, Ramp, Phase-Shifting, Stripe.

EasyPySpin | ☆ 84 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, Iillustrator, Fusion 360
Language: Japanese, English