Ryota Maeda

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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

Polarimetric Light Transport Analysis for Specular Inter-reflection **Dec. 2023**
Ryota Maeda, Shinsaku Hiura
arXiv (under review)

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 | ☆124 stars
Polarization image analysis tool. Demosaicing, Stokes vector, Mueller matrix.

structuredlight | ☆118 stars
Generate and Decode structured light. Binary, Gray, XOR, Ramp, Phase-Shifting, Stripe.

EasyPySpin | ☆93 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

Last updated: April 21, 2024