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   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 | ☆ 152 stars
Polarization image analysis tool. Demosaicing, Stokes vector, Mueller matrix.

structuredlight | ☆ 138 stars
Generate and Decode structured light. Binary, Gray, XOR, Ramp, Phase-Shifting, Stripe.

EasyPySpin | ☆ 99 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 (native), English (advanced)

Last updated: November 17, 2024