Ryota Maeda

Himeji, Hyogo, Japan
maeda.ryota.elerac@gmail.com linkedin.com/in/ryota-maeda-elerac github.com/elerac

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: Dr. Kenshi Takayama and Dr. Takafumi Taketomi

POSTECH Computer Graphics Lab **Mar. 2024 – Feb. 2025**
Visiting Research
Mentors: Prof. Seung-Hwan Baek

Software on GitHub

Polanalyser | ☆162 stars
Polarization image analysis tool. Demosaicing, Stokes vector, Mueller matrix.

structuredlight | ☆141 stars
Generate and Decode structured light. Binary, Gray, XOR, Ramp, Phase-Shifting, Stripe.

EasyPySpin | ☆101 stars
cv2.VideoCapture like wrapper for FLIR Spinnaker SDK.

Skills

Programming: Python, C++, NumPy, OpenCV, PyTorch
Embedded System: Arduino, Mbed, Electronic circuit design
Design and CAD: Photoshop, Lightroom, Illustrator, Fusion 360
Language: Japanese (native), English (advanced)

Last updated: December 29, 2024