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 | ☆ 113 stars

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

structuredlight | ☆117 stars

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

EasyPySpin | ☆88 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, English

Last updated: March 3, 2024