




Param Hanji

Computer Vision | Computer Graphics

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EXPERIENCE

UNIVERSITY OF CAMBRIDGE | POSTDOC WITH **Cengiz Öztireli**
Oct 2022 – Current | Cambridge, UK

- 3D generative modelling with pointclouds and/or implicit neural representations
- Helped design and deliver the MPhil. course on **Machine Visual Perception**.

UNIVERSITY OF CAMBRIDGE | RESEARCH ASSISTANT WITH **Rafał Mantiuk**
Feb 2019 – Sept 2022 | Cambridge, UK

- Developed statistical estimators and generative models for inverse HDR imaging
- Worked on optical flow, differentiable rendering & neural view synthesis
- Helped build a capture-render-display system to pass the “Visual Turing Test”
- Built tools for comprehensive quantitative image and video quality assessment

HUAWEI RESEARCH CENTRE | INTERNSHIP
Sept 2020 – Jan 2021 | Munich, Germany (remote due to COVID-19)

- Studied the effect of tone-curves (encoding functions) for Computer Vision
- Tested the robustness of CV methods to adversarial illuminations
- Published a journal paper; successfully submitted a patent with collaborators

NATIONAL UNIVERSITY OF SINGAPORE | RESEARCH ASSISTANT WITH **Gary Tan**
July 2018 – Jan 2019 | Singapore-MIT Alliance for R&D, Singapore

- Instrumental in the first public release of **SimMobility**: a massively parallel, agent-based framework to simulate traffic in Boston and Singapore
- Worked on graph optimization problems in the space of urban mobility

ACADEMIC ACTIVITIES

SELECTED PUBLICATIONS

1. [\[link\]](#) Mustafa, A., **Hanji, P.**, & Mantiuk, R. K. “Distilling Style from Image Pairs for Global Forward and Inverse Tone Mapping”. ACM Siggraph CVMP (2022).
2. [\[link\]](#) **Hanji, P.**, Mantiuk, R. K., Eilertsen, G., Hajisharif, S., & Unger, J. “Comparison of single image HDR—caveats of quality assessment”. Siggraph (2022).
3. [\[link\]](#) Zhong, F., Jindal, A., Yöntem, Ö., **Hanji, P.**, Watt, S., & Mantiuk, R. “Reproducing Reality with HDR-MFS Display”. Siggraph Asia (2021).
4. [\[link\]](#) Eilertsen, G., Hajisharif, S., **Hanji, P.**, Tsirikoglou, A., Mantiuk, R. K., & Unger, J. “How to cheat with metrics in SI-HDR reconstruction”. LCI Workshop, ICCV (2021).
5. [\[link\]](#) **Hanji, P.**, Alam, M. Z., Giuliani, N., Chen, H., & Mantiuk, R. K. “HDR Dataset with Adversarial Illumination for Computer Vision methods”. JIST and LIM (2021).
6. [\[link\]](#) **Hanji, P.**, Zhong, F., & Mantiuk, R. K. “Noise-Aware Merging of HDR Image Stacks without Camera Calibration”. AIM Workshop, ECCV (2020).

COMPETITIONS AND AWARDS

- **1st place**: WACV HDR Video Quality Measurement (full-reference), 2023 [\[link\]](#)
- **Best paper**: ACM Siggraph CVMP (full paper award), 2022 [\[link\]](#)
- **Finalists**: Huawei Enter the Metaverse (3D graphics compression), 2022 [\[link\]](#)
- **PhD studentship**: ERC “Horizon 2020” Grant, Project “EyeCode” [\[link\]](#)
- **1st place**: Samsung VR Appathon, NITK, 2015

SOFTWARE

PROGRAMMING

Python • C++ • Bash • L^AT_EX

LIBRARIES/TOOLS

PyTorch • CUDA • OpenCV • COLMAP • SLURM • Weights & Biases • Git • Docker

PUBLIC REPOSITORIES

FovVideoVDP • **HDRutils** • **pfstools** • **SimMobility** • **TSeriesMMA**

EDUCATION

UNIVERSITY OF CAMBRIDGE

PHD IN COMPUTER SCIENCE

Oct 2019 - Present | Cambridge, UK

Statistical estimation for inverse HDR imaging

Supervisor: Rafał Mantiuk

NATIONAL INSTITUTE OF TECHNOLOGY, KARNATAKA

B.TECH. IN INFORMATION TECHNOLOGY

Aug 2014 - June 2018 | Surathkal, India

GPA: 8.13 / 10.0

TEACHING

PROJECTS SUPERVISED

- TEXT-CONDITIONED POINTCLOUD GENERATION WITH DIFFUSION
- DIFFUSION FOR IMAGE-INPAINTING
- IMAGE RESCALING BY PROBABILISTIC DISENTANGLEMENT
- MULTI-MONITOR GAZE-TRACKING
- SEGMENTATION BY DEPTH AND COLOUR

SUPERVISIONS AND TICKING

- MACHINE VISUAL PERCEPTION
- INTRODUCTION TO PROBABILITY
- ALGORITHMS
- ML AND BAYESIAN INFERENCE
- PROGRAMMING IN C AND C++
- ADVANCED GRAPHICS AND IMAGE PROCESSING
- FURTHER GRAPHICS
- INTRODUCTION TO GRAPHICS