

# DOUNIA HAMMOU

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🌐 Personal website    in LinkedIn    🐙 Github    🆔 Orcid    🏆 Google scholar

## PUBLICATIONS

- Dounia Hammou, Lukáš Krasula, Christos G. Bampis, Zhi Li, Rafał K. Mantiuk. **Image quality assessment across viewing distances: A comparison study of CSF-based and rescaling-based metrics.** Human Vision and Electronic Imaging Conference, IS&T International Symposium on Electronic Imaging (EI 2024). 2024.
- Dounia Hammou, Lukáš Krasula, Christos G. Bampis, Zhi Li, Rafał K. Mantiuk. **Comparison of metrics for predicting image and video quality at varying viewing distances.** 2023 IEEE international workshop on multimedia signal processing (MMSP). IEEE, 2023.
- Rafał K. Mantiuk, Dounia Hammou, Param Hanji. **HDR-VDP-3: A multi-metric for predicting image differences, quality and contrast distortions in high dynamic range and regular content.** arXiv preprint arXiv:2304.13625. 2023.
- Dounia Hammou, Sid Ahmed Fezza, Wassim Hamidouche. **EGB: Image Quality Assessment Based on Ensemble of Gradient Boosting.** Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR) Workshops, 2021, pp. 541-549. 10.1109/CVPRW53098.2021.00066

## ONGOING PROJECTS

- Perceptual quality assessment of HDR videos across viewing distances and display brightness levels
- 📅 Oct 2023 – Feb 2024
- Collection of a subjective video quality assessment dataset of 4K HDR videos across varying viewing distances and display brightness levels.

## EDUCATION

- PhD in Computer Science
- University of Cambridge**
- 📅 Oct 2022 – Sep 2026    📍 Cambridge, United Kingdom
- Second-year PhD student under the supervision of Rafał K. Mantiuk.
  - Fully funded by Netflix, Inc.
  - PhD title: Video quality assessment for efficient streaming of high dynamic range content across display and viewing conditions.

- Telecommunication and Digital Technologies Engineer
- National Institute of Telecommunication and ICT**
- 📅 Sep 2017 – Jul 2022    📍 Oran, Algeria
- Valedictorian for all five years.
  - Final year project: Federated Learning for Image/Video Quality Assessment.

## SKILLS

- Imaging:**
- Image and Video Processing, Perceptual Image and Video Quality Assessment, Contrast Sensitivity Functions
- Data Science:**
- Statistics and Probabilities, Machine Learning, Deep Learning, Federated Learning, Machine Learning Operations (MLOps), Optimisation, Data Analysis, Data Visualisation
- Data Science Frameworks:**
- Pytorch, Tensorflow, Keras, Tensorflow Federated
- Programming Languages:**
- Python, Matlab, Java
- Database Management System:**
- MySQL, Redis, MongoDB
- Computer Graphics Basics:**
- Ray Tracing, Rasterisation, OpenGL
- Web Development Basics:**
- HTML/CSS, Bootstrap, JavaScript, PHP, ExpressJS, Rest API
- Telecommunication & Networking:**
- Cisco Routing & Switching, Linux, Cyber Security, Virtualisation, Cloud Computing, Signal Processing

## AWARDS

- WACV 2023 Challenge**
- First place at “The HDR Video Quality Measurement Grand Challenge”.
- ICIP 2020 Challenge**
- Second place at “The Real-time distortion classification in laparoscopic videos Challenge”.
- CVPR 2021 Challenge**
- Eleventh place at “The NTIRE Perceptual Image Quality Assessment Challenge”.
- MICCAI 2021**
- Selected in the MICCAI Student participation Awards to attend the MICCAI conference.

# WORK EXPERIENCE

## Research Intern

### INSA VAADER /IETR laboratory

📅 Mar – Jul 2022      📍 Rennes, France (Remote)

- Research internship for graduation project under the supervision of Dr. Wassim Hamidouche & Dr. Sid Ahmed Fezza.
- Project title : Federated Learning for Image/Video Quality Assessment.

## Machine Learning Intern

### Eurl Kitabquiz

📅 11 Jul – 31 Jul 2021      📍 Chlef, Algeria

- Conception of children book recommendation for the Quizzito application.
- Deployment and Implementation of the recommended system using users similarity.

# LANGUAGES

Arabic – Native      ●●●●●

English – IELTS : C1      ●●●●●

French – TCF SO : C1      ●●●●●

# REFEREES

Professor Rafal K. Mantiuk  
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🌐 Personal website

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@ lkrasula@netflix.com  
🌐 Personal website