

Ali Bozorgian

📍 Cambridge ✉ contact@alibozorgian.com ☎ 07570 236296 🔗 [alibozorgian](#) 🌐 [alibzr](#)

Expertise

Intimate knowledge of deep learning models for computer vision, and computer graphics
 In-depth understanding of camera ISP pipeline, computational imaging, and HDR imaging
 Proficient understanding of optics, spatial and temporal vision, eye-movements, and visual psychophysics

Experience

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| Huawei R&D , AI Researcher <ul style="list-style-type: none"> Image quality and video quality assessment for gaming 3D computer vision, novel view synthesis, and inverse rendering Variable frame rate rendering for computer graphics applications Camera ISP pipeline, color and HDR imaging | Cambridge, UK
Mar 2025 – present |
| Apple , Camera Algorithm Engineer Intern <ul style="list-style-type: none"> White balance Camera ISP pipeline | Cambridge, UK
Aug 2023 – Dec 2023 |
| University of Cambridge , Visiting Researcher <ul style="list-style-type: none"> Variable Frame Rate (VRR) flicker detection model | Cambridge, UK
Apr 2023 – Aug 2023 |

Education

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| Ph.D. Norwegian University of Science and Technology , Computer Science <ul style="list-style-type: none"> Thesis: Contrast sensitivity in peripheral vision for color imaging Proposed contrast sensitivity and image quality metrics for immersive displays Curated a subjective image quality assessment dataset for virtual reality | Oct 2020 – Aug 2024 |
| M.Sc. Tehran Polytechnic , Color Science <ul style="list-style-type: none"> Thesis: Enhancement and evaluation of chromatic adaptation models Optimization of chromatic adaptation transform matrix Conducted psychophysical experiments to evaluate cues for illuminant estimation | Sept 2017 – Apr 2020 |
| B.Sc. Tehran Polytechnic , Engineering | Sept 2013 – Sept 2017 |

Publications

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| ElaTCSF: a temporal contrast sensitivity function for flicker detection and modeling variable refresh rate flicker
Yancheng Cai, Ali Bozorgian, Maliha Ashraf, Rafal Mantiuk
10.1145/3680528.3687586 🔗 (SIGGRAPH ASIA) | 2024 |
| Modification and evaluation of the peripheral contrast sensitivity function models
Ali Bozorgian, Marius Pedersen, Jean-Baptiste Thomas
10.1364/JOSAA.445234 🔗 (JOSA A) | 2021 |
| Subjective Quality Assessment of Foveated Omnidirectional Images in Virtual Reality
Ali Bozorgian, Marius Pedersen, Jean-Baptiste Thomas, Mohamed-Chaker Larabi
10.1109/OJID.2025.3556364 🔗 (IEEE Open Journal on Immersive Displays) | 2024 |
| Spatiotemporal contrast sensitivity functions, predictions for the critical flicker frequency | 2024 |

Ali Bozorgian, Maliha Ashraf, Rafal Mantiuk
[10.2352/EI.2024.36.11.HVEI-209](#) [↗](#) (Electronic Imaging)

The Effect of Peripheral Contrast Sensitivity Functions on the Performance of the Foveated Wavelet Image Quality Index

2022

Ali Bozorgian, Marius Pedersen, Jean-Baptiste Thomas
[10.2352/lim.2022.1.1.03](#) [↗](#) (London Imaging Meeting)

Projects

Subjective Image Quality Assessment in Virtual Reality

github.com/alibzr/VRIQA [↗](#)

- Developed a Unity application for participants to view and evaluate 360-degree images using controllers, with eye-tracking data recorded
- Tools Used: Unity, C#, Varjo Eye-Tracking API

Viewport extractor for Varjo virtual reality headsets

github.com/alibzr/varjo-viewport-extraction [↗](#)

- Developed a C++ app for capturing VR headset screenshots for an image quality dataset, consisting of two modules: one renders 360-degree images in Unity and controls camera direction, while the other captures and saves screenshots using DirectX 12 ScreenGrab library.
- Tools Used: C++, Varjo Native SDK, DirectX 12, Unity, C#, Socket Programming

Technologies

Programming Languages: Python, C++, C#, MATLAB

Machine Learning Libraries: PyTorch, Fastai, Scikit-learn

Other: Linux, Docker, Git, OpenCV, Psychtoolbox, Psychopy, ISETBIO