MOHIT LAMBA

Research Scholar

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MohitLamba94 mohit-lamba

EDUCATION & EXPERIENCE

Research Engineer

Qualcomm

May 2021 – Nov 2021 Banglore, Karnataka

Designing Virtual Reality systems for Qualcomm XR research group.

PhD

Computation Imaging Lab, IIT Madras

July 2018 – Present Chennai, Tamil Nadu

Common night-time imaging solutions such as flashlight, NIR and large exposure time tend to cause artifacts, increase equipment cost and may not even be available. My Ph.D. thus focuses on designing real-time systems using off-the-shelf DSLR cameras to enable nighttime photography. **CGPA:** 8.79

Post-Graduation

Multimedia Analysis and Security Lab, IIT Gandhinagar

2016 – 2018 Ahmedabad, Gujarat

Digital media is gradually replacing printed documents in courts, banks, academic institutions, etc. As part of my thesis, I designed algorithms to ascertain digital images' genuineness and in case of any data falsification, identify the type of tampering done to digital images. **CGPA:** 8.38

BTech

Indraprastha University

2012 – 2016 Delhi

Did my minor and major projects on Voltage Controlled Oscillators. **CGPA:** 8.9

ACHIEVEMENTS & SERVICES

Technology and Startup Funding (TSF) Grant
Received a *Rs. 50,00,000/-* grant under the Technology and Startup Funding (TSF) Government scheme for building and commercialising "Night-time image sensing for increased human perception and Advanced Driver-Assistance Systems"

Research project with *Caterpillar Inc.*
Developed a industrial machinery fault detection system for *Caterpillar Inc.* using thermal cameras.

Reviewer
I frequently review papers submitted to international Journals and Conferences such as IEEE-TIP and WACV

PUBLICATIONS

Books

- *"Residual Domain-Rich Models and their Application in Distinguishing Photo-Realistic and Photographic Images" in Recent Advances in Mathematics for Engineering*. (2020). Taylor & Francis.

Journal Articles

- "Harnessing Multi-View Perspective of Light Fields for Low-Light Imaging". (2021). *IEEE Transactions on Image Processing (TIP)*.

Conference Proceedings

- "Fast and Efficient Restoration of Dark Light Fields". (2022), In *Winter Conference on Applications of Computer Vision (WACV)*.
- "Restoring Extremely Dark Images in Real Time". (2021), In *IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*.
- "Multi-Patch Aggregation Models for Resampling Detection". (2020), In *IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*.
- "Towards Fast and Light-Weight Restoration of Dark Images". (2020), In *The British Machine Vision Conference (BMVC)*.
- "Augmented data and improved noise residual-based CNN for printer source identification". (2018), In *IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*.

$ Patents

- *"Methods and system for real -time restoration of images captured in extreme low-light condition (202141026548, filed)"*. (2021).

TEACHING ASSISTANCE

Deep Learning | Computer Vision | Computational Photography | Signals and Systems | Data Analytics Laboratory

SKILLS

PyTorch | Python | MATLAB | LaTeX

COURSEWORK

Computational Photography | Probability | Applied Linear Algebra | Digital Signal Processing | 3D Computer Vision | Multimedia Security