Sadbhawna

CONTACT INFORMATION

Phone: +91 7807094887
E-mail: sadbhawnathakur@gmail.com
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RESEARCH INTERESTS

Visual Perception, Multimedia Perceptual Quality, Quality Assessment, Quality Enhancement, Novel View Synthesis, Super-Resolution, Deep Learning, Machine Learning, Computer Vision, Image Processing, Medical Image Analysis, Artificial Intelligence.

WORKING

(i) **Institute Post-doc Fellow**   May 2023 - Now
   Mentor: Prof. Sukhendu Das
   VP Lab, CSE Department
   Indian Institute of Technology Madras
   Project Title: Real-world Super-Resolution.

(ii) **Early-doc Fellow**   January 2023 - April 2023
   Indian Institute of Technology Jammu

(iii) **Research Intern**   March 2022 - September 2022
   Supervisor: Dr. Sunil Jaiswal
   Head, R&D, K|Lens GmbH
   Am Romerkastell 4, Saarbrucken, Germany
   Project Title: Video Super Resolution for real-world videos.

EDUCATION

Indian Institute of Technology Jammu   July 2018 - January 2023
Ph.D. in Computer Science
Advised by Dr. Vinit Jakhetiya (https://sites.google.com/view/vinitjakhetiya/home)
(Coursework CGPA: 8.4/10)

SLIET, Punjab (CFTI estd. by MHRD, India)   July 2016-June 2018
M.Tech. in Computer Science
(CGPA: 8.2/10)

ABVGIET, Shimla, Himachal Pradesh   July 2012-June 2016
State Govt. College Affiliated to HPTU
B.Tech. in Computer Science
(Percentage: 74.5 %)

OTHER QUALIFICATIONS

UGC-NET, 2018 and GATE 2016, 2018 Qualified.

ACHIEVEMENTS

(i) Recieved Ph.D. Industrial Exposure Fellowship offered by Indo-German Science & Technology Centre (IGSTC). Link: https://www.igstc.org/home/industrial_fellows_2021

(ii) Received prize money worth 600 USD sponsored by GOOGLE for ICASSP SPGC 2021

(iii) Runner Up Team in IEEE ICASSP 2021 Signal Processing Grand Challenge (SPGC) on COVID-19 Diagnosis

PUBLICATIONS

JOURNALS:

(i) **Context Region Identification based Quality Assessment of 3D Synthesized Views**
Published, IEEE Transactions on Multimedia, 2022
(Link: https://ieeexplore.ieee.org/document/9891833)
Sadbhawna, Vinit Jakhetiya, Badri N. Subudhi, Sunil P. Jaiswal, Leida Li, Weisi Lin

(ii) **Shift Compensation and Cosine Similarity based Quality Assessment of 3D-Synthesized Images.**
Published, IEEE Transactions on Image Processing, 2021
(Link: https://ieeexplore.ieee.org/document/9714223)
Sadbhawna, Vinit Jakhetiya, Shubham Chaudhary, Sharath C. Guntuku, Badri N. Subudhi, Weisi Lin

(iii) **Stretching Artifacts Identification for Quality Assessment and Enhancement of 3D-Synthesized Views.**
Published, IEEE Transactions on Image Processing, 2021
(Link: https://ieeexplore.ieee.org/document/9697977)
Sadbhawna, Vinit Jakhetiya, Sharath C. Guntuku, Deebha Mumtaz, Badri N. Subudhi

CONFERENCES:

(i) **Expanding Synthetic Real-World Degradations for Blind Video Super Resolution**
Accepted, IEEE/CVF Computer Vision and Pattern Recognition Workshops 2023
(Link: https://arxiv.org/abs/2305.02660)
Mehran Jeelani*, **Sadbhawna***, Noshaba Cheema, Klaus Illgner, Philipp Slusallek, Sunil Jaiswal

(ii) **Do we need a new large-scale quality assessment database for Generative Inpainting based 3D View Synthesis? (Student Abstract)**
Published, AAAI Conference, 2022
(Link: https://www.aaai.org/AAAI22Papers/SA-00426-Sadbhawna.pdf)
Sadbhawna, Vinit Jakhetiya, Sharath C. Guntuku, Deebha Mumtaz, Badri N. Subudhi

(iii) **Detecting COVID-19 and Community-Acquired Pneumonia using Chest CT Scan Images with Deep Learning**
Published, IEEE ICASSP 2021
(Link: https://ieeexplore.ieee.org/document/9414007)
Shubham Chaudhary, **Sadbhawna**, Vinit Jakhetiya, Badri N. Subudhi, Ujjwal Baid, Sharath C. Guntuku

(iv) **Distortion Specific Contrast Based No Reference Quality Assessment of DIBR-Synthesized Views**
Published, IEEE MMSP 2020
(Link: https://ieeexplore.ieee.org/document/9287088)
Sadbhawna, Vinit Jakhetiya, Deebha Mumtaz, Sunil Jaiswal

PRE-PRINTS

(i) **Non-Subsampled Contourlet Transform and Ground-truth Score Generation based Quality Assessment for DIBR-Synthesized Views**
Under review, IEEE Transactions on Multimedia
Deebha Mumtaz, **Sadbhawna**, Vinit Jakhetiya, Badri N. Subudhi, Weisi Lin (IEEE Fellow)

(i) **Real World Video Quality Assessment for Joint Motion Deblurring and Super-Resolution**
Submitted, ACM Multimedia Conference, 2023
Sheikh Faizan*, Ambuj Mishra*, **Sadbhawna**, Vinit Jakhetiya, Bdri N. Subudhi, Sunil P. Jaiswal

ACTIVE COLLABORATORS

(i) **Prof. Weisi Lin (Webpage Link: https://personal.ntu.edu.sg/wslin/Home.html)**
Associate Chair (Research), School of Computer Science and Engineering, Nanyang Technological University, Singapore

(ii) **Dr. Sharath Chandra Guntuku (Webpage Link: https://sharathg.cis.upenn.edu/)**
Research Assistant Professor, University of Pennsylvania, US

(iii) **Dr. Sunil P. Jaiswal (Webpage Link: https://spjaiswal.github.io/)**
Head R & D, K|Lens GmbH, Germany

SERVICE AND LEADERSHIP

(i) **Invited Talks at IIT Jammu**
Talk 1: Various fellowship opportunities for Masters/Ph.D. Students.
Talk 2: Learn to host your own GitHub Website.

(ii) **Graduate Admissions: CSE, IIT Jammu**
Reviewed applications for AI Research Area