

Vinayak Gupta

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EDUCATION

- 2025- **University of Maryland, College Park (UMD)**
Ph.D. in Computer Science
Advisor: Jia-Bin Huang
- 2020-2025 **Indian Institute of Technology Madras (IITM)**
B.Tech. in Electrical Engineering & M.Tech. in Data Science
Advisor: Kaushik Mitra

PUBLICATIONS *

- “PhotonSplat: 3D Scene Reconstruction and Colorization from SPAD Sensors”
Sai Sri Teja*, Sreevidya Chintalapati*, Vinayak Gupta*, Mukund Varma T, Haejoon Lee, Aswin C Sankaranarayanan, Kaushik Mitra.
International Conference on Computational Photography (ICCP) 2025.
- “PaintScene4D: Consistent 4D Scene Generation from Text Prompts.”
Vinayak Gupta, Yunze Man, Yuxiong Wang.
International Conference on Computer Vision Workshops (ICCVW) 2025.
- “FlareGS: 4D Flare Removal using Gaussian Splatting for Urban Scenes.”
Mayank Chandak, Sai Sri Teja Kuppaa, Gopi Raju Matta, Vinayak Gupta, Kaushik Mitra.
International Conference on Computer Vision Workshops (ICCVW) 2025.
- “GANESH: Generalisable NeRF for Lensless Imaging.”
Rakesh Raj*, Akshat*, Badhri Narayanan*, Vinayak Gupta, Rohit Chowdhary, Chandrakala S, Kaushik Mitra.
Winter Conference on Applications of Computer Vision (WACV) 2025.
- “GAURA: Generalisable Approach for Unified Restoration and Rendering of Arbitrary Views.”
Vinayak Gupta*, Rongali Girish*, Mukund Varma T*, Ayush Tewari, Kaushik Mitra.
European Conference on Computer Vision (ECCV) 2024.
- “GSN: Generalisable Segmentation of Neural Radiance Fields.”
Vinayak Gupta, Rahul Goel, Dhawal Sirikonda, P. J. Narayanan.
AAAI Conference on Artificial Intelligence (AAAI) 2024.
- “U2NeRF: Unsupervised Underwater Image Restoration and Neural Radiance Fields.”
Vinayak Gupta*, Manoj S*, Mukund Varma T*, Kaushik Mitra.
International Conference on Learning Representations, Tiny Papers (ICLR Tiny) 2024.

* indicates equal contribution.

RESEARCH EXPERIENCE

- Aug. 2024–Apr. 2025 Research Intern — Image Sciences Lab, Carnegie Mellon University
Host: Aswin C. Sankaranarayanan
PhotonSplat: 3D Scene Reconstruction and Colorization from SPAD Sensors (ICCP 2025)
- May 2024–Nov. 2024 Research Intern — Vision Lab, University of Illinois Urbana-Champaign (UIUC)
Host: Yuxiong Wang
PaintScene4D: Consistent text-to-4D scene generation (ICCVW 2025).
- May 2023–Aug. 2023 Summer Research Intern — Vision & Graphics Lab, IIIT Hyderabad
Host: P. J. Narayanan
GSN: Generalisable Segmentation of Neural Radiance Fields. (AAAI 2024)
- Sept. 2022–May 2025 Student Researcher — Computational Imaging Lab, IIT Madras
Host: Kaushik Mitra
*Multiple Works: GAURA, GANESH, PhotonSplat, U2NeRF, FlareGS
accepted to ECCV 2024, WACV 2025, ICCP 2025 etc*

AWARDS & ACHIEVEMENTS

- 2025 Dean's Fellowship (2 years), University of Maryland, College Park
- 2025 Laksmi Ravi Award for the Best Dual Degree Project, Indian Institute of Technology Madras
- 2022 Bronze Medal — Bosch Deep Learning High Prep Event, Inter IIT Tech Meet
- 2022 Young Research Fellowship (YRF), IIT Madras
- 2018 Top 10 in India — ICPC (school division)

SERVICE

- Teaching **University of Maryland, College Park**
CMSC 422: Introduction to Machine Learning, Fall 2025.
- Indian Institute of Technology Madras**
Deep Learning Practices (Online BSc), Fall 2024
EE5176 Computational Photography, Fall 2024
EE5178 Modern Computer Vision, Spring 2024
EE5180 Introduction to Machine Learning, Spring 2023
- Reviewing International Conference on 3D Vision (3DV) 2026
Conference on Computer Vision and Pattern Recognition (CVPR) 2024, 2025
British Machine Vision Conference (BMVC) 2024