

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.

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)

* indicates equal contribution.

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