

# Vinayak Gupta

University of Maryland – College Park, MD, USA

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## Education

### Ph.D. in Computer Science

2025–Present

University of Maryland, College Park (UMD)

Advisor: Jia-Bin Huang

### B.Tech. in Electrical Engineering & M.Tech. in Data Science

2020–2025

Indian Institute of Technology Madras (IITM)

Advisor: Kaushik Mitra

## Publications

### GenWildSplat: Generalizable Sparse-View 3D Reconstruction from Unconstrained Images.

Vinayak Gupta, Chih-Hao Lin, Shenlong Wang, Anand Bhattad, Jia-Bin Huang

Under Review

### PaintScene4D: Consistent 4D Scene Generation from Text Prompts.

Vinayak Gupta, Yunze Man, Yuxiong Wang

ICCVW 2025

### PhotonSplat: 3D Scene Reconstruction and Colorization from SPAD Sensors.

Sai Sri Teja\*, Sreevidya Chintalapati\*, Vinayak Gupta\*, ..., Aswin C Sankaranarayana, Kaushik Mitra

ICCP 2025

### FlareGS: 4D Flare Removal using Gaussian Splatting for Urban Scenes.

Mayank Chandak, Sai Sri Teja Kuppa, Gopi Raju Matta, Vinayak Gupta, Kaushik Mitra

ICCVW 2025

### GANESH: Generalisable NeRF for Lensless Imaging.

Rakesh Raj\*, Akshat\*, Badhri Narayanan\*, Vinayak Gupta, Rohit Chowdhary, Chandrakala S, Kaushik Mitra

WACV 2025

### GAURA: Generalisable Approach for Unified Restoration and Rendering of Arbitrary Views.

Vinayak Gupta\*, Rongali Girish\*, Mukund Varma T\*, Ayush Tewari, Kaushik Mitra

ECCV 2024

### GSN: Generalisable Segmentation of Neural Radiance Fields.

Vinayak Gupta, Rahul Goel, Dhawal Sirikonda, P. J. Narayanan

AAAI 2024

### U2NeRF: Unsupervised Underwater Image Restoration and Neural Radiance Fields.

Vinayak Gupta\*, Manoj S\*, Mukund Varma T\*, Kaushik Mitra

ICLR Tiny Papers 2024

\* indicates equal contribution.

## Research Experience

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

## Awards & Achievements

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- 2025:** Dean's Fellowship (2 years), University of Maryland, College Park  
**2025:** Lakshmi Ravi Award for the Best Dual Degree Project, IIT 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

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### Teaching

<b>University of Maryland, College Park</b> <i>CMSC 422: Introduction to Machine Learning</i>	Fall 2025
<b>Indian Institute of Technology Madras</b> <i>Deep Learning Practices (Online BSc), Fall 2024</i>	
EE5176 Computational Photography, Fall 2024	
EE5178 Modern Computer Vision, Spring 2024	
EE5180 Introduction to Machine Learning, Spring 2023	

### Reviewing

<b>Conference Reviewing</b>
<i>ICLR 2026</i>
<i>3DV 2026</i>
<i>CVPR 2024, 2025, 2026</i>
<i>BMVC 2024</i>