

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

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

Awards & Achievements

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

Teaching

University of Maryland, College Park <i>CMSC 422: Introduction to Machine Learning</i>	Fall 2025
Indian Institute of Technology Madras <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

Conference Reviewing

ICLR 2026
3DV 2026
CVPR 2024, 2025, 2026
BMVC 2024