# Sharath Girish

sgirish@cs.umd.edu

### EDUCATION

University of Maryland, College Park

August 2019 - Present

PhD. in Computer Science

GPA: 4.0/4.0

Advisor: Prof. Abhinav Shrivastava

Indian Institute of Technology Madras, India

August 2015 - May 2019

B.Tech. in Electrical Engineering

GPA: 9.04/10

# **PUBLICATIONS**

# NIRVANA: Neural Implicit Representations of Videos with Adaptive Networks and Autoregressive Patch-wise Modeling

Shishira R Maiya\*, Sharath Girish\*, Max Ehrlich, Hanyu Wang, Kwot Sin Lee, Patrick Poirson, Pengxiang Wu, Chen Wang, Abhinav Shrivastava

To appear at IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2023

# LilNetX: Lightweight Networks with EXtreme Model Compression and Structured Sparsification

Sharath Girish, Kamal Gupta, Saurabh Singh, Abhinav Shrivastava

To appear at International Conference on Learning Representations (ICLR), 2023

# Moving Beyond Handcrafted Architectures in Self-Supervised Learning

Sharath Girish, Debadeepta Dey, Neel Joshi, Vibhav Vineet, Shital Shah, Caio Cesar Teodoro Mendes, Abhinav Shrivastava, Yale Song

Under review

# Towards Discovery and Attribution of Open-world GAN Generated Images

Sharath Girish\*, Saksham Suri\*, Saketh Rambhatla, Abhinav Shrivastava

IEEE International Conference on Computer Vision (ICCV), 2021

# The Lottery Ticket Hypothesis for Object Recognition

Sharath Girish\*, Shishira R Maiya\*, Kamal Gupta, Hao Chen, Larry Davis, Abhinav Shrivastava IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2021

### A Unified Learning-Based Framework for Light Field Reconstruction From Coded Projections

Anil Kumar Vadathya, Sharath Girish, Kaushik Mitra

IEEE Transactions on Computational Imaging (TCI), 2019

#### Unconstrained Motion Deblurring for Dual-lens Cameras

Mahesh Mohan MR, Sharath Girish, AN Rajagopalan

Proceedings of the IEEE International Conference on Computer Vision (ICCV), 2019 (Oral)

# A Deep Learning Framework for Light Field Reconstruction From Focus-Defocus Pair: A minimal hardware approach

Anil Kumar Vadathya, Sharath Girish, Kaushik Mitra

Computational Cameras and Displays Workshop, CVPRW 2018

# Professional Experience

#### Research Intern, Microsoft Research

May 2021 - August 2021

Mentor - Dr. Yale Song, Dr. Debadeepta Dey

Worked on application of Neural Architecture Search on Self Supervised Learning

#### Graduate Research Assistant, University of Maryland

May 2020 - Present

Mentor - Prof. Abhinav Shrivastava

Working on Open World Image Attribution and Model Compression for Object Recognition

# Graduate Research Assistant, University of Maryland

August 2019 - May 2020

Mentor - Prof. Rama Chellappa

Worked on Activity Recognition by splitting models based on input video modalities or output activity types to improve performance.

# PhD Coursework

Algorithms in Machine Learning: Guarantees and Analyses, Deep Learning, Advanced Numerical Optimization, Statistical Pattern Recognition, Advanced Techniques in Visual Learning and Recognition

# ACHIEVEMENTS

- Dean's Fellowship awarded by the University of Maryland, 2019
- All India Rank 274 in JEE-Advanced 2015, taken by 1.3 million students (top 0.02%)
- Awarded KVPY scholarship in 2014 and the NTSE scholarship in 2013 by Government of India