


Oindrila Saha

PhD Student, UMass Amherst
Advisor: Prof. Subhansu Maji

 Personal Website
 osaha@umass.edu
 Google Scholar

EDUCATION

University of Massachusetts Amherst
PhD in Computer Science

2021 - present

Indian Institute of Technology Kharagpur

2014 - 2019

B.Tech (E&ECE) + M.Tech (Honours) in Visual Information Processing and Embedded Systems
Minor in Computer Science and Engineering

EXPERIENCE

Meta Reality Labs Pittsburgh

2022

Research Intern with Dr. Fabian Prada and Dr. Zhe Cao
- Multi-view/pose dense image correspondence.

Microsoft Research India

2019 - 2021

Research Fellow with Dr. Prateek Jain and Dr. Harsha Simhadri
- Computer vision for resource-constrained devices

Adobe Research India

2018

Research Intern with Dr. Niyati Chhaya
- NLP for social media analysis

PUBLICATIONS

YOU DREAM : Generating Anatomically Controllable Consistent Text-to-3D Animals

Sandeep Mishra*, Oindrila Saha*, Alan C. Bovik
Under Submission

Improved Zero-Shot Classification by Adapting VLMs with Text Descriptions

Oindrila Saha, Grant Van Horn, Subhansu Maji
Computer Vision and Pattern Recognition (CVPR), 2024.

Improving Few-Shot Part Segmentation using Coarse Supervision

Oindrila Saha, Zezhou Cheng, Subhansu Maji
European Conference on Computer Vision (ECCV), 2022.

GANORCON: Are Generative Models Useful for Few-shot Segmentation?

Oindrila Saha, Zezhou Cheng, Subhansu Maji
Computer Vision and Pattern Recognition (CVPR), 2022.

RNNPool: Efficient Non-linear Pooling for RAM Constrained Inference.

MSR Blog

Oindrila Saha, Aditya Kusupati, Harsha Vardhan Simhadri, Manik Varma and Prateek Jain.
Spotlight (3% acceptance) at Neural Information Processing Systems (NeurIPS), 2020.
WiCV workshop @ Computer Vision and Pattern Recognition (CVPR), 2020.

RecSal : Deep Recursive Supervision for Visual Saliency Prediction.

Sandeep Mishra* and Oindrila Saha*.
British Machine Vision Conference (BMVC), 2020.

IDRiD: Diabetic Retinopathy–Segmentation and Grading Challenge.

Prasanna Porwal, [and 56 others, including Oindrila Saha]
Medical Image Analysis (MedIA) Journal, 2020 .

Learning with Multitask Adversaries using Weakly Labelled Data for Semantic Segmentation in Retinal Images.

Oindrila Saha, Rachana Sathish and Debdoot Sheet.
Long Oral at Medical Imaging with Deep Learning, (MIDL), 2019.
🏆 Selected for Special Issue submission in Medical Image Analysis journal.

Do events change opinions on social media? A case study of the 2016 US Presidential Debates.
 Sopan Khosla, Niyati Chhaya, Shivam Jindal, **Oindrila Saha** and Milind Srivastava.
International Conference Social Informatics, (SocInfo) 2019.

Workshops:

Decomposed evaluations of geographic disparities in text-to-image models

Abhishek Suredhy*, Dishant Padalia*, Nandhinee Periyakaruppan*, **Oindrila Saha**, Adina Williams, Adriana Romero-Soriano, Megan Richards⁺, Polina Kirichenko⁺, Melissa Hall⁺
TiFA Workshop @ ICML 2024 and Next Gen AI Safety Workshop @ ICML 2024

C3DAG: Controlled 3D Animal Generation using 3D pose guidance

Sandeep Mishra*, **Oindrila Saha***, Alan C. Bovik
AI3DG Workshop @ Computer Vision and Pattern Recognition (CVPR), 2024.

PARTICLE: Part Discovery and Contrastive Learning for Fine-grained Recognition.

Oindrila Saha and Subhransu Maji.
ViPriors Workshop @ International Conference on Computer Vision (ICCV), 2023.

Fully Convolutional Neural Network for Semantic Segmentation of Anatomical Structure and Pathologies in Colour Fundus Images Associated with Diabetic Retinopathy.

Oindrila Saha, Rachana Sathish and Debdoot Sheet.
Diabetic Retinopathy Challenge Workshop @ International Symposium of Biomedical Imaging (ISBI), 2018.
 🏆 2nd in leaderboard and 3rd in on-site challenge workshop.

Crowdsourcing for Chromosome Segmentation and Deep Classification.

Monika Sharma*, **Oindrila Saha***, Anand Sriraman, Ramya Hebbalaguppe, Lovekesh Vig and Shirish Karande.
CVMI Workshop @ Computer Vision and Pattern Recognition, (CVPR), 2017.

*+ - equal contribution

SOFTWARE

1. EdgeML: Machine Learning for resource-constrained edge devices.

Microsoft Research India

SELECTED AWARDS AND HONORS

- Young Researcher at Heidelberg Laureate Forum (**HLF '20**). 2020
- Awarded **Charpak Research Internship Scholarship** by Embassy of France (to top 20 students over India) to conduct research in a French Laboratory. 2017
- Awarded **Best Project** among 23 research intern teams by Big-Data Experience Lab, Adobe. 2018
- Among top 1% (300) students in India in Astronomy, Physics and Mathematics National Olympiads. '10, '13, '14
- Awarded KVPY Fellowship from Government of India. 2012
- Awarded NTSE Scholarship from Government of India. 2009

RESPONSIBILITIES

- **Teaching Assistant** - UMass Amherst
 - CS 682 Neural Networks - Prof. Subhransu Maji, Prof. Chuang Han Fall 2023
- **Teaching Assistant** - IIT Kharagpur
 - Digital Signal Processing - Prof. Gautam Saha Autumn 2018
 - Network Theory Lab - Prof. Arijit De Spring 2019
- **Mentoring**
 - UMass ERSP (Early Research Scholars Program for Undergrad students) on ongoing project on object counting Fall 2023
 - UMass 696DS (UMass industry mentorship for Master's students) on ongoing project on bias in text-to-image generative models Spring 2024
- **Reviewer** - BMVC 2020, CVPR 2022-24, ECCV 2022-24, ICCV 2023, Neurips 2023-24, WACV 2023