

Gopal Sharma

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Current Position

Postdoctoral Researcher, *The University of British Columbia*, Vancouver 2022 – Present
Advisors: [Andrea Tagliasacchi](#) and [Kwang Moo Yi](#)

Education

Ph.D. in Computer Science, *University of Massachusetts, Amherst* (3.86/4.00) 2016 – 2022
Thesis: [Representation Learning for Shape Decomposition, By Shape Decomposition](#)
Advisor: [Subhansu Maji](#) and [Evangelos Kalogerakis](#)

B.Tech. in Electrical Engineering, *Indian Institute of Technology, Roorkee* (8.6/10.0) 2012 – 2016

Previous Positions

Research Assistant, *University of Massachusetts* (with [Subhansu Maji](#) and [Evangelos Kalogerakis](#) on computer vision and graphics) 2016 – 2022

Research Intern, *Nvidia*, Toronto (with [Sanja Fidler](#) and [Kangxue Yin](#) on 3D self-supervised learning) 2021

Research Intern, *Adobe*, San Jose (with [Radomír Měch](#) and [Siddhartha Chaudhuri](#) on 3D shape modeling) 2019

Research intern, *KAUST* (with [Bernard Ghanem](#) on computer vision) 2015

Publications [[Google Scholar](#): 0.3k+ citations and an h-index of 7]

2023.....

1. *Unsupervised Semantic Correspondence Using Stable Diffusion*
[Eric Hedlin](#), [Gopal Sharma](#), [Shweta Mahajan](#), [Hossam Isack](#), [Abhishek Kar](#), [Andrea Tagliasacchi](#), and [Kwang Moo Yi](#)
arXiv preprint [arXiv:2305.15581](#) 2023

2022.....

2. *PriFit: Learning to Fit Primitives Improves Few Shot Point Cloud Segmentation*
[Gopal Sharma](#), [Bidya Dash](#), [Matheus Gadelha](#), [Aruni RoyChowdhury](#), [Marios Loizou](#), [Evangelos Kalogerakis](#), [Liangliang Cao](#), and [Erik Learned-Miller](#)
Computer Graphics Forum 2022
3. *MvDeCor: Multi-view Dense Correspondence Learning for Fine-grained 3D Segmentation*
[Gopal Sharma](#), [Kangxue Yin](#), [Subhansu Maji](#), [Evangelos Kalogerakis](#), [Or Litany](#), and [Sanja Fidler](#)
European Conference on Computer Vision 2022
4. *Attention beats concatenation for conditioning neural fields*
[Daniel Rebain](#), [Mark J Matthews](#), [Kwang Moo Yi](#), [Gopal Sharma](#), [Dmitry Lagun](#), and [Andrea Tagliasacchi](#)
Transaction of Machine Learning Research 2022

5. *Representation Learning for Shape Decomposition, By Shape Decomposition*

Gopal Sharma

PhD Thesis, University of Massachusetts Amherst 2022

2020.....

6. *Label-efficient learning on point clouds using approximate convex decompositions*
Matheus Gadelha, Aruni RoyChowdhury, **Gopal Sharma**, Evangelos Kalogerakis, Liangliang Cao, Erik Learned-Miller, Rui Wang, and Subhransu Maji
ECCV: European Conference on Computer Vision 2020
7. *ParSeNet: A Parametric Surface Fitting Network for 3D Point Clouds*
Gopal Sharma, Difan Liu, Evangelos Kalogerakis, Siddhartha Chaudhuri, and Radomír Měch
ECCV: European Conference on Computer Vision 2020

2019.....

8. *Search-guided, lightly-supervised training of structured prediction energy networks*
Amirmohammad Rooshenas, Dongxu Zhang, **Gopal Sharma**, and Andrew McCallum
Advances in Neural Information Processing Systems 2019
9. *Learning point embeddings from shape repositories for few-shot segmentation*
Gopal Sharma, Evangelos Kalogerakis, and Subhransu Maji
International Conference on 3D Vision (3DV) 2019

2018.....

10. *CSGNet: Neural shape parser for constructive solid geometry*
Gopal Sharma, Rishabh Goyal, Difan Liu, Evangelos Kalogerakis, and Subhransu Maji
Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition 2018

2016.....

11. *Persistent aerial tracking system for uavs*
Matthias Mueller, **Gopal Sharma**, Neil Smith, and Bernard Ghanem
IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS) 2016

Invited Talks

1. *MvDeCoR: Multi-view Dense Correspondence Learning for Fine-grained 3D Segmentation*, Google Brain 2022
2. *ParSeNet: A Parametric Surface Fitting Network for 3D Point Clouds*, [Invited talk at 3d Structure and Compositional Learning workshop](#). ICCV 2021
3. *Fine-grained 3D shape co-segmentation via pixel-based contrastive learning*, Nvidia Toronto 2021
4. *Reinforcement learning for game programming*, Game programming course at UMass Amherst 2021
5. *Unity Machine Learning Agents*, Game programming course at UMass Amherst 2020
6. *CSGNet: Neural Shape Parser for Constructive Solid Geometry*, New England Computer Vision Workshop, Harvard University 2018

Interns and Students

Eric Hedlin	PhD student at UBC	2022 – present
Shakiba Kheradmand	PhD student at UBC	2022 – present
Bidya Dash	MSc student at UMass Amherst	2021
Rishabh Goyal	Visiting intern at UMass Amherst	2017

Professional Activities

3DV Program Committee

2024

Reviewing.....

IEEE Conference on Computer Vision and Pattern Recognition (CVPR)

IEEE International Conference on Computer Vision (ICCV)

International Conference on Machine Learning (ICML)

Journal of Machine Learning Research (JMLR)

Neural Information Processing Systems (NeurIPS)

Transactions on Pattern Analysis and Machine Intelligence (TPAMI)

ECCV European Conference on Computer Vision (ECCV)

Symposium on Geometry Processing (SGP)

ACM SIGGRAPH

ACM Transactions on Graphics (TOG)

SIGGRAPH Asia

Honors & Awards

MCM scholarship, Indian Institute of Technology, Roorkee

2012-2014

Skills

Programming Python, MATLAB, C++

Frameworks NumPy, Pandas, PyTorch, SciPy, TensorFlow

Toolbox Linux, emacs, org, git, tmux, zsh