

EDUCATION	<div>University of Michigan, Ann Arbor, USA<span>Sept. 2019 - April 2024 (Expected)</span></div> <div>Ph.D. in Computer Science, EECS</div> <div>• Advisors: Prof. David Fouhey, Prof. Justin Johnson</div> <div>Carnegie Mellon University, Pittsburgh, USA<span>Aug. 2017 - Aug. 2019</span></div> <div>Masters in Robotics, Robotics Institute, School of Computer Science</div> <div>• CGPA: 4.05/4.0</div> <div>• Advisor: Prof. Abhinav Gupta</div> <div>Indian Institute of Technology Bombay, Mumbai, India<span>Jul. 2011 - Jul. 2015</span></div> <div>Bachelor of Technology (B.Tech), Computer Science and Engineering with Honours</div> <div>• CGPA: 8.77/10</div> <div>• Minor in Electrical Engineering</div> <div>• Advisor: Prof. Suyash Awate, Prof. Ganesh Ramakrishnan</div>
INTERESTS	My research interests are to understand and learn the 3D structure to enable human-object (and robot) interactions in the visual world with minimal supervision from images, and raw data.
PROFESSIONAL EXPERIENCE	<div>Waymo Research, Mountain View, CA<span>Jun. 2023 - Aug 2023</span></div> <div>Research Intern, Preception Research<span>Xinchen Yan and Charles Qi</span></div> <div>Google Research, Mountain View, CA<span>May. 2022 - Dec 2022</span></div> <div>Research Intern, Scene Understanding Team<span>Prof. Leonidas Guibas</span></div> <div>Samsung Research, Seoul, South Korea<span>Sept. 2015 - Jun. 2017</span></div> <div>Research Engineer, AI Lab<span>Prof. Jihie Kim</span></div>
PUBLICATIONS	<div><a href="#">NIFTY: Neural Object Interaction Fields for Guided Human Motion Synthesis</a> Nilesh Kulkarni, Davis Rempe, Kyle Genova, Abhijit Kundu, Justin Johnson, David F. Fouhey, Leonidas Guibas CVPR, 2024</div> <div><a href="#">3DFIRES: Few Image 3D REconstruction for Scenes with Hidden Surface</a> Linyi Jin, Nilesh Kulkarni, David Fouhey CVPR, 2024</div> <div><a href="#">FAR: Flexible, Accurate and Robust 6DoF Relative Camera Pose Estimation</a> Chris Rockwell, Nilesh Kulkarni, Linyi Jin, Jeong Joon Park, Justin Johnson, David Fouhey CVPR, 2024</div> <div><a href="#">Learning to Predict Scene-Level Implicit 3D from Posed RGBD Data</a> Nilesh Kulkarni, Linyi Jin, Justin Johnson, David F. Fouhey CVPR, 2023</div> <div><a href="#">What’s Behind the Couch? Directed Ray Distance Functions (DRDF) for 3D Scene Reconstruction</a> Nilesh Kulkarni, Justin Johnson, David F. Fouhey ECCV, 2022</div> <div><a href="#">Collision Replay: What does bumping into things tell you about the scene geometry?</a> Alexander Raistrick, Nilesh Kulkarni, David F. Fouhey BMVC, 2021 (Oral)</div> <div><a href="#">Implicit mesh reconstruction from unannotated image collections</a> Shubham Tulsiani, Nilesh Kulkarni, Abhinav Gupta Preprint, 2021</div> <div><a href="#">Articulation-Aware Canonical Surface Mapping</a> Nilesh Kulkarni, Abhinav Gupta, David F. Fouhey, Shubham Tulsiani CVPR, 2020</div> <div><a href="#">Canonical Surface Mapping via Geometric Cycle Consistency</a> Nilesh Kulkarni, Abhinav Gupta*, Shubham Tulsiani*</div>

ICCV, 2019

[3D-RelNet: Joint Object and Relational Network for 3D Prediction](#)

Nilesh Kulkarni, Ishan Misra, Shubham Tulsiani, Abhinav Gupta  
ICCV, 2019

[On-Device Neural Language Model based Word Prediction](#)

Seunghak Yu\*, Nilesh Kulkarni\*, Haejun Lee, Jihie Kim

27th International Conference on Computational Linguistics: System Demonstrations (COLING 2018)

[Syllable-level Neural Language Model for Agglutinative Language](#)

Seunghak Yu\*, Nilesh Kulkarni\*, Haejun Lee, Jihie Kim

Empirical Methods in Natural Language Processing, Workshop on Subword and Character Level Models, (EMNLP 2017)

[Robust Kernel Principal Nested Spheres](#)

Suyash Awate\*, Manik Dhar\*, Nilesh Kulkarni\*

23rd International Conference on Pattern Recognition (ICPR 2016)

[Research and Development of Matsya 4.0, Autonomous Underwater Vehicle](#)

Technical Report, International Robosub Competition, 2015

\* – Shared Authorship

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| ACHIEVEMENTS | <ul style="list-style-type: none"><li>• Secured an <b>All India Rank 77</b> in IITJEE-2011 (amongst 0.5 million students)</li><li>• Certified as among the <b>Top 1%</b> in India, in the Indian National Chemistry Olympiad and Indian National Physics Olympiad, 2011</li><li>• Awarded Institute Technical Color (<b>7</b> among 9000), 2014</li><li>• Awarded Institute Technical Special Mention (<b>15</b> among 9000), 2013</li><li>• Awarded the Tata Welfare Trust Scholarship for Graduate Studies, 2017</li></ul> |
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| PROFESSIONAL<br>SERVICE | <u>Reviewer</u> <ul style="list-style-type: none"><li>• CVPR 2020, 2021, 2022, 2023</li><li>• ECCV/ICCV 2019, 2020, 2022</li><li>• NeurIPS 2020, 2021</li><li>• 3DV 2019, 2022</li><li>• AI4ALL 2021</li></ul> |
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