

N DINESH REDDY

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WORK EXPERIENCE

JAN '23 - CUR Applied Scientist, **Amazon AWS AI**, USA

EDUCATION

JAN '17 - DEC '22 MS/PhD in Robotics, **CMU RI**, USA
Advisor: [Prof. Srinivasa Narasimhan](#)

DEC '13- MAR '16 Research Assistant, **IIIT-Hyderabad**, INDIA
Advisor: [Prof. K Madhava Krishna](#)

AUG '09 - AUG '13 Bachelor of Engineering (hons) in EEE, **BITS-Pilani**,INDIA
Advisor: [Prof. Suman Kapur](#)

RESEARCH EXPERIENCE

JAN '23 - CUR Applied Scientist, **Amazon AWS AI**, Santa Clara, USA
1) Leading a team for customizing AWS pretrained models
2) working on foundation models for video and text.

JAN '17 - DEC '22 Graduate Research Assistant, **ILIM Lab**, CMU, USA
Project: Developing algorithms to addressing the problem of occlusion in images
Advisor: [Prof. Srinivasa Narasimhan](#)

JUNE '20 - DEC '20 Applied Scientist(II) Intern, **Amazon Go**, Seattle, USA
Project: End-to-End learnable tracking framework for 3D human pose
Advisor: [Laurent Guiges](#)

MAR '16 - DEC '16 PHD Intern, **Max Planck Institute for Intelligent Systems**, Germany
Project: Learning reconstruction using deep neural networks.
Advisor: [Dr. Andreas Geiger](#)

SELECTED AWARDS

- BITSAA **30Under30** 2022
- **Best Paper Award** at IEEE Intelligent Vehicle Symposium 2021
- **Qualcomm Innovation Fellowship** 2021 (\$100k award)
- **AMAZON GO PHD Fellowship** 2020
- **Microsoft Research** Travel grant to attend IROS 2015.

ACADEMIC SERVICES

- Invited program committee/ Reviewer for CVPR 2019-, ICCV 2019-, ICLR 2021-, ECCV 2020-, 3DV 2021-, ICRA 2020-, IROS 2019-, AAAI-2019, ACCV 2019-, ICCP 2021-
- Admission Committee for Masters in Computer Vision 2019,2020
- Admission Committee for PHD in Robotics 2022
- Masters Thesis Committee for Tanvir Parhar 2020, Divam Gupta 2021, Tom Bu 2022, Kshitiz Garg 2023

STUDENT SUPERVISED

Yao Xiao (Intern at Amazon in 2023) (PHD at UIUC)
Khiem Vuong (Masters in Robotics at CMU in 2022)(PhD at CMU)
Anurag Ghosh (Masters in Robotics at CMU in 2022)(PhD at CMU)
Grace Su (Bachelors in Computer science at Columbia in 2022)(Now at CMU)
Neha Boloor (Masters in Computer Vision at CMU in 2021)(Now at Matician)
Shefali Srivatsava (Masters in Computer Vision at CMU in 2021)(Now at Google)
Xudong Chen (Masters in Computer Vision at CMU in 2019)(Now at Nvidia)
Maying Shen (Masters in Computer Vision at CMU in 2019)(Now at Nvidia)
Mengqing Jiang (Masters in Computer Vision at CMU in 2019)(Now at Waymo)
Fangyu Li (Masters in Computer Vision at CMU in 2019)(Now at Nvidia)
Zhiyu Min (Masters in Computer Vision at CMU in 2019)(Now at Google)
Yijun Luo (Masters in Computer Vision at CMU in 2019)(Now at Google)
Te-Li Wang (Masters in Computer Vision at CMU in 2018)(Now at Facebook Reality Labs)
Suriya Narayanan Lakshmanan (Masters in Computer Vision at CMU in 2018)(Now at Cyngyn)
Nazrul Athar (Masters at IIIT Hyderabad in 2017)(Now at Booking.com, Amsterdam)

TEACHING EXPERIENCE

Special Topics on Geometric Methods in Vision(Instructor [Prof. Srinivasa Narasimhan](#) and [Prof. Kris Kitani](#))
Geometry Based Methods in Vision(Instructor [Prof. Martial Hebert](#))
Computer Vision(Instructor [Prof. Srinivasa Narasimhan](#))

PATENTS

“END-TO-END MULTI-PERSON ARTICULATED THREE DIMENSIONAL POSE TRACKING”

U.S. Patent Appln. No. 17/218,476 Filing Date 31 Mar 2021

Inventors: **Dinesh Reddy Narapureddy**, Jean Laurent Guigues, Leonid Pishchulin, Jayakrishnan Kumar Eledath

PEER-REVIEWED PUBLICATIONS

N Dinesh Reddy, khiem Vuong, Robert Tomburo, Srinivasa Narasimhan. [\[Project\]](#)

Generating Realistic Training Data from Time-Lapse Imagery for Reconstructing Dynamic Objects under Occlusion
Int' conf on Computer vision (CVPR), 2024.(In Submission)

Anurag Ghosh, **N Dinesh Reddy**, Christoph Mertz, Srinivasa Narasimhan.[\[Project\]](#)

Learned Two-Plane Perspective Prior based Image Resampling for Efficient Object Detection
Int' conf on Computer vision and pattern recognition(CVPR), 2023.

Gengshan Yang, Chaoyang Wang, **N Dinesh Reddy**, Deva Ramanan. [\[Project\]](#)

RAC: Reconstructing Animatable Categories from Videos

Int' conf on Computer vision and pattern recognition(CVPR), 2023.

N Dinesh Reddy, Robert Tomburo, Srinivasa Narasimhan. [\[Project\]](#)

WALT: Watch And Learn 2D Amodal Representation from Time-Lapse Imagery

Int' conf on Computer vision and pattern recognition(CVPR), 2022.

N Dinesh Reddy, Laurent Guigues, Leonid Pishchulin, Jayan Eladeth, Srinivasa Narasimhan. [\[Project\]](#)

TesseTrack: End-to-End Learnable Multi-Person Articulated 3D Pose Tracking

Int' conf on Computer vision and pattern recognition(CVPR), 2021.

N Dinesh Reddy, Minh Vo, Srinivasa Narasimhan. [\[Project\]](#)

Occlusion-Net: Occlusion-Net: 2D/3D Occluded Keypoint Localization Using Graph Networks

Int' conf on Computer vision and pattern recognition(CVPR), 2019.

N Dinesh Reddy, Minh Vo, Srinivasa Narasimhan.[\[Project\]](#)

CarFusion: Combining Point Tracking and Part Detection for Dynamic 3D Reconstruction of Vehicles

Int' conf on Computer vision and pattern recognition(CVPR), 2018.

Fangyu Li, **N Dinesh Reddy**, Xudong Chen, Srinivasa Narasimhan. [\[Project\]](#)

Traffic4D: Single View 4D Reconstruction of Repetitious Activity Using Longitudinal Self-Supervision

Int' conf on Intelligent Vehicles Symposium(IV), 2021. Best Paper Award

Mark Shenin, **N Dinesh Reddy**, Matthew O'Toole, Srinivasa Narasimhan. [\[Project\]](#)

Diffraction Line Imaging

European Conference on Computer Vision(ECCV), 2020. (ORAL)

N Dinesh Reddy, Iman Abbasnejad, Sheetal Reddy, Amit K Mondal and Vindhya Devalla.[\[Project\]](#)

Incremental Real-time Multibody VSLAM with Trajectory Optimization Using Stereo Camera.

Int' Conf on Intelligent Robots and Systems(IROS), 2016.

N Dinesh Reddy*, Falak Chayya*, Sarthak , Vishes , Zeeshan and K Madhava Krishna.[\[Project\]](#)

Monocular Reconstruction of vehicles : Combining SLAM with Shape Priors.

IEEE Int' Conf on Robotics and Automation(ICRA), 2016.

N Dinesh Reddy, Prateek, Vishes Chari and Madhava Krishna.[\[Project\]](#)

Dynamic Body VSLAM with Semantic Constraints.

Int' Conf on Intelligent Robots and Systems(IROS), 2015.

Nazrul Athar, **N Dinesh Reddy**, K Madhava Krishna [\[Project\]](#)

Temporal Semantic Motion Segmentation using Spatio Temporal Optimization

Int' Conf on Energy Minimization Methods in Computer Vision and Pattern Recognition (EMMCVPR), 2017.(ORAL)

Nazrul Athar, **N Dinesh Reddy**, K Madhava Krishna [\[Project\]](#)

Monocular Semantic Motion Segmentation using Dilated Convolutions

Int' Conf on Computer Vision Theory and Applications (VISAPP), 2017. (ORAL)

N Dinesh Reddy, Prateek Singhal and K Madhava Krishna. [\[Project\]](#)

Semantic Motion Segmentation Using Dense CRF Formulation.

Ind' Conf on Computer Vision, Graphics and Image Processing (ICVGIP), 2014. (ORAL)

Prateek Singhal, Aditya Deshpande, Harit Pandya, **N Dinesh Reddy** and K Madhava Krishna.

Top Down Approach to Detect Multiple Planes from Pair of Images.

Ind' Conf on Computer Vision, Graphics and Image Processing (ICVGIP), 2014. (ORAL)