

Zaid Tasneem

✉ zaid.tasneem@rice.edu
🌐 zaidtas.github.io
in [zaid-tasneem](https://www.linkedin.com/in/zaid-tasneem)
🔗 [zaidtas](https://github.com/zaidtas)

Industry Research Positions

- 2024–Present **Research Scientist**, *NEC Labs America*, San Jose, CA
Manager: Manmohan Chandraker
- 2020–2021 **Research Intern**, *NEC Labs America*, San Jose, CA
Manager: Manmohan Chandraker

Academic Research Positions

- 2023–2024 **Visiting Researcher**, *MIT Media Lab*, Cambridge, MA
Faculty Host: Ramesh Raskar
- 2019–2024 **Research Assistant**, *Rice University*, Houston, TX
Advisor: Ashok Veeraraghavan
- 2016–2019 **Research Assistant**, *University of Florida*, Gainesville, FL
Advisor: Sanjeev Koppal
- 2015 **Research Intern**, *University of Stuttgart*, Germany
Faculty Host: Achim Menges

Education

- 2019–2024 **Ph.D.**, *Rice University*, Houston, TX,
Thesis: Privacy-aware Computational Cameras and Decentralized Learning Frameworks
- 2016–2018 **M.S.**, *University of Florida*, Gainesville, FL,
Thesis: Adaptive Depth Sensing
- 2012–2016 **B.Tech**, *Indian Institute of Technology Kanpur*, India

Publications

- 2026 **LangDriveCTRL: Natural Language Controllable Driving Scene Editing with Multi-modal Agents**
Y. He, F. Pittaluga, Z. Jiang, M. Zwicker, M. Chandraker, [Z. Tasneem](#)
arXiv
- 2026 **HorizonForge: Driving Scene Editing with Any Trajectories and Any Vehicles**
Y. Wang, F. Pittaluga, [Z. Tasneem](#), C. You, M. Chandraker, Z. Jiang
Computer Vision and Pattern Recognition (CVPR), 2026
- 2026 **HorizonWeaver: Multi-Level Semantic Editing for Driving Scenes**
M. Soroco, F. Pittaluga, [Z. Tasneem](#), A. Aich, W. Chen, M. Chanraker, Z. Jiang
Computer Vision and Pattern Recognition (CVPR) Findings, 2026

- 2026 **Privacy-aware Meta-Optics for Person Detection**
Z. Tasneem, J. Froch, Y. Zhao, A. Majumdar, A. Veeraraghavan
 ACS Photonics
- 2025 **What if Eye...? Computationally Recreating Vision Evolution**
 K. Tiwary, A. Young, Z. Tasneem, T. Klinghoffer, A. Dave, T. Poggio, D. Nilsson, B. Cheung, R. Raskar
 Science Advances
- 2024 **DecentNeRFs: Decentralized Neural Radiance Fields**
Z. Tasneem, A. Dave, A. Singh, K. Tiwary, P. Vepakomma, A. Veeraraghavan, R. Raskar
 European Conference on Computer Vision (ECCV), 2024
- 2022 **Learning Phase Mask for Privacy-Preserving Passive Depth Estimation**
Z. Tasneem, G. Milione, X. Yu, Y. Tsai, A. Veeraraghavan, M. Chandraker, F. Pittaluga
 European Conference on Computer Vision (ECCV), 2022
- 2020 **Towards a Mems-based Adaptive Lidar**
Z. Tasneem^{*}, F. Pittaluga^{*}, J. Folden, B. Tilmon, A. Chakrabarti, S. Koppal
 International Conference on 3D Vision (3DV), (* = Equal contribution)
- 2020 **Adaptive Fovea for Scanning Depth Sensors**
Z. Tasneem, C. Adhivarahan, D. Wang, H. Xie, K. Dantu, S. Koppal
 International Journal of Robotics Research (IJRR), 2020
- 2018 **Directionally Controlled Time-of-Flight Ranging for Mobile Sensing Platforms**
Z. Tasneem, D. Wang, H. Xie, S. Koppal
 Robotics: Science and Systems XIV, 2018
- 2018 **An Integrated Forward-View 2-Axis MEMS Scanner for Compact 3D LIDAR**
 D. Wang, S. Rojas, A. Shuping, Z. Tasneem, S. Koppal, H. Xie
 International Conference on Nano Engineered and Molecular Systems (IEEE NEMS), 2018

Patents

- 2025 **Private and Decentralized 3D from Crowd Sourced Image Data**
Z. Tasneem, A. Dave, A. Singh, K. Tiwary, P. Vepakomma, A. Veeraraghavan, R. Raskar
 US Patent App. 19/195,045
- 2025 **Privacy-Aware Meta-Optics for Person Detection**
Z. Tasneem, A. Majumdar, J. Fröch, A. Veeraraghavan, Y. Zhao
 US Patent App. 63/872,720
- 2023 **Fast Foveation Camera and Controlling Algorithms**
 S. Koppal, Z. Tasneem, D. Wang, H. Xie, B. Tilmon
 US Patent 11,800,205
- 2022 **Learning Privacy-preserving Optics via Adversarial Training**
 F. Pittaluga, Z. Tasneem, G. Milione, X. Yu, M. Chandraker, Y. Tsai
 US Patent App. 17412704

Teaching and Academic Service

- Teaching** Computer Vision (2022,2023), Deep Learning (2019,2021),
Assistant Computational Imaging (2022), 3D Vision (2020)
- Research** *Graduates*: A. Madani, Y. He, B. Yu, P. Singh, K. Tiwary, H. Guo
Mentor *Undergraduates*: A. Sheikh, J. Rodriguez, M. Tang

Reviewer *Journals:* IEEE T-PAMI, Nature: Autonomous Robots, Light Science Applications.
Conferences: ECCV 2020,2025 CVPR 2022,2024,2025 Neurips 2025

Invited Talks

CMU **Decentralized Scene Representations**, *Human Sensing Group Talk*, 2024
Host: Fernando De La Torre

Flower Labs **Decentralized Neural Radiance Fields**, *Flower Monthly*, 2024
Host: Nic Lane

MIT **Privacy-Preserving Computational Cameras**, *Camera Culture Group Talk*, 2022
Host: Ramesh Raskar

imec **Adaptive Depth Sensing**, 2018
Host: Umar Piracha

Organization

2022-2023 **President**, *Graduate Student Association*, Electrical Engineering, Rice University

2021-2022 **Social Chair**, *Graduate Student Association*, Electrical Engineering, Rice University

2014 **Coordinator**, *Annual Cultural Festival*, IIT Kanpur

2012-2013 **Member**, *Robocon'13*, Robotics Team, IIT Kanpur