

Mallesham Dasari

Curriculum Vitae

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Research Vision. My research advances the science and systems of *spatial intelligence* by developing the computing foundations that enable machines to perceive, represent, communicate, and interact with physical spaces. My work spans immersive multimedia, computer networking, wearable systems, AI, and human-computer interaction, with applications in extended reality (XR), robotics, digital twins, and next-generation workforce training environments. I have pioneered dynamic 4D geometry compression through a family of systems, including TVMC, TSMC, and N4MC, that advance the representation, compression, and transmission of dynamic spatial data. Together, these efforts led to the foundation of **Open4D**, an NSF funded open-source initiative to establish the foundational data infrastructure for next-generation spatial computing systems across XR, robotics, AI, and autonomous systems. My research has been supported by the U.S. National Science Foundation (NSF), National Security Agency (NSA), and Department of Defense (DoD), and has been recognized with the NSF CAREER Award, multiple best paper and demo awards, and the AI-RAN Alliance Innovation Award.

Current Employment

Jan 2024 - Present **Assistant Professor**, Northeastern University, Boston, MA, USA.
Department of Electrical and Computer Engineering
Affiliate: Institute for Intelligent Networked Systems (INSI)
Director: Spatial Intelligence Research Group (sinrg.org)

Education & Training

2022 - 2023 **Postdoctoral Researcher**, Carnegie Mellon University, Pittsburgh, PA, USA.
Advisor (s): Anthony Rowe, Srinivasan Seshan

2016 - 2021 **PhD**, *Computer Science and Engineering*, Stony Brook University, Stony Brook, NY, USA.
Advisor: Samir R. Das

2008 - 2012 **BE**, *Computer Science and Engineering*, Osmania University, Hyderabad, India.

Selected Honors and Awards

2026 Recipient of National Science Foundation (NSF) CAREER Award.

2026 Selected as one of top builders at AWE for Open4D (highly selective - 23/132 founders).

2025 Innovation award from AI-RAN Alliance (one of the ten awards worldwide).

2025 Best reproducible paper award at ACM MMSys conference.

2025 Best demo award at ACM HotMobile conference.

2024 Distinguished technical program committee member award at ACM MMSys Conference.

2024 Best Research Poster at ACM MobiCom conference.

2022 Best demo award at DARPA SRC center (CONIX) workshop at Carnegie Mellon University.

2021 Best presentation award at ACM MobiCom S3 Workshop.

2021 Best paper award at IEEE International Symposium on Multimedia (ISM).

2021 ACM SIGMOBILE community engagement award (\$10,000).

2019 Jerrold L. Stein emerging leader award at Stony Brook University for governing student body.

2015 Innovation award from Uurmi Systems Pvt. Ltd for x264 video codec hardware acceleration.

2012 Ministry of Human Resource Development (MHRD) scholarship for pursuing MTech degree.

2008 Osmania University scholarship with full college tuition waiver.

2008 High school valedictorian of student body.

Grant Proposals (Awarded)

Secured over \$1.09M in competitive research funding, including over \$1.02M in PI share, since joining as a faculty member at Northeastern University in 2024.

- NSF CAREER PI, "Bringing Spatial Intelligence to Life", \$622,394 (Single PI), 05/2025-04/2031.
- NSF POSE PI, "Open4D: Enabling an Open-Source Ecosystem for Dynamic 4D Geometry Data Processing in XR, Robotics, and Autonomous Systems", \$300,000 (In collaboration with Prof. Jacob Chakerski at NJIT, my share: \$250,000), 06/2026-05/2027.
- NSA/DoD PI, "AICoN: Human-AI Collaboration for Immersive Coding Interfaces", \$131,808.69 (Single PI from Northeastern, a collaborator/co-PI Prof. Chris North at Virginia Tech), sub-contract from North Carolina State University - Laboratory for Analytic Sciences (LAS), my share: \$109,028, 01/2026-12/2026.
- NSF PI, "ACM CoNEXT Student Travel Grants Award", \$20,000 (Single PI), 10/2025-09/2026.
- AI RAN Alliance PI, "Bringing Cellular Connectivity to XR/AI Glasses", \$15,000 (Single PI), Dec 2025.

Teaching

- Instructor EECE5698: **Networked XR Systems**, Northeastern University, Fall 2025 (trace score 4.5), Fall 2024 (trace score 4.8), Spring 2024 (trace score 4.8).
EECE 2540: **Fundamentals of Computer Networks**, Northeastern University, Spring 2026 (trace score 4.7), Fall 2024 (trace score 3.5).
- Co-Instructor CSE 570: **Wireless and Mobile Networks**, Stony Brook University, Spring 2020.
- Instructor WISE 380: **Women in Science & Engineering**, Stony Brook University, Spring & Fall 2019.
- Teaching Assistant CSE 381: **Computer Game Programming**, Stony Brook University, Spring 2017.
CSE 101: **Introduction to Computer Science**, Stony Brook University, Fall 2016.

Industry R&D Experience

- 05/20–12/21 **Research Intern**, *NEC Labs*, Princeton, NJ, USA.
Advisor: Karthikeyan Sundaresan
Topic: Multi-User Localization and Tracking using Visual and Wireless (RF) Sensing.
- 07/19–09/19 **Research Intern**, *Bell Labs*, Cambridge, UK.
Advisor: Fahim Kawsar
Topic: Urban City Sensing using WiFi Management Frames on Wearable Devices.
- 05/18–08/18 **Research Intern**, *AT&T Labs*, Bedminster, NJ, USA.
Advisor: Vijay Gopalakrishnan
Topic: Elastic Scaling of Virtual Network Functions in LTE/5G Cellular Networks.
- 05/17–04/18 **Research Intern**, *HP Labs*, Palo Alto, CA, USA.
Advisor: Kyu-Han Kim
Topic: Data-driven Video Quality Optimization in Enterprise WiFi.
- 06/14–12/15 **Senior Software Engineer**, *Uurmi Systems Pvt. Ltd*, Hyderabad, India.
Topic: Development of Network Stack (MAC and Routing Protocols) in Embedded Linux Kernel.
- 05/12–05/14 **Software Engineer**, *Uurmi Systems Pvt. Ltd*, Hyderabad, India.
Topic: Hardware Acceleration of H.264 Video Codec in DSP Processors. The hardware codec was successfully integrated in video surveillance system developed at Indian defense labs (DRDL, Dehradun).
🏆 Received the company's Innovation Award for this work.
- 01/12–05/12 **Engineering Intern**, *Uurmi Systems Pvt. Ltd*, Hyderabad, India.
Topic: Designing Fast Motion Estimation Algorithms for H.264 Video Compression.
- 05/11–08/11 **Software Development Intern**, *IDRBT*, Hyderabad, India.
Topic: Computation Offloading of Banking Applications on Distributed Grid Computing Servers.

Conference Publications

Note: Authors underlined are/were students under my supervision.

- [C28] A First Look at Multimodal Mobile Application Performance of XR and AI Smart Glasses
Authors: Majd Khalaf, Matthew Garcia, Mayank Chadha, **Mallesham Dasari**
ACM Conference on Mobile Computing and Networking (MobiCom), 2026
- [C27] Understanding Organizational Strategies Across Multimodal Artifacts in Immersive Computational Notebook
Sungwon Inn, Minju Baeck, Yalong Yang, Sang Ho Yoon, Woontack Woo, **Mallesham Dasari**
IEEE International Symposium on Mixed and Augmented Reality (IEEE ISMAR), 2026
- [C26] TSMC: Time-Varying Scene Mesh Compression
Guodong Chen, Libor Váša, Amrita Mazumdar, **Mallesham Dasari**
ACM Conference on Computer Graphics (SIGGRAPH), 2026
- [C25] Implicit Surface Compression – with Good Old Discrete Cosine Transform and Motion Compensation
Tao Jin, Tianshu Huang, Shengxi Wu, **Mallesham Dasari**, Srinivasan Seshan, Anthony Rowe
ACM Conference on Computer Graphics (SIGGRAPH), 2026
- [C24] SceneHub4D: A Dataset and Evaluation Framework for 6-DoF VR Scenes
Jaehong Kim, Tao Jin, **Mallesham Dasari**, Srini Seshan, Anthony Rowe
IEEE Conference on Virtual Reality and 3D User Interfaces (IEEE VR), 2026
- [C23] LMG: Efficient Streaming of Layered Mesh–Gaussian 3D Scenes
Yuan-Chun Sun, Guodong Chen, Sam Ziaie Kondori, **Mallesham Dasari**, Cheng-Hsin Hsu
ACM Conference on Multimedia Systems (MMSys), 2026
- [C22] ISM: Intelligent Multi-Path Scheduler for Multi-Camera Networked Systems
Alireza Hosseini, Jacob Chakareski, **Mallesham Dasari**
ACM Conference on Multimedia Systems (MMSys), 2026
- [C21] SPARC: Proximity-aware Scheduling of AR Mapping and Cloud-based ML Upsampling for Efficient Multi-User SLAM
Shneka Muthu Kumara Swamy, Jacob Chakareski, Nicholas Mastronarde, **Mallesham Dasari**
ACM Conference on Multimedia Systems (MMSys), 2026
- [C20] XRFab: Immersive Cleanroom Training with Digital Twins and XR for Semiconductor Manufacturing
Mayank Chadha, Barath Balamurugan, Guodong Chen, Zhewen Yang, Alok Mishra, **Mallesham Dasari**
IEEE International Symposium on Metaverse (ISMEV), 2025
- [C19] SVD: Spatial Video Dataset
MH Izadimehr, Milad Ghanbari, Guodong Chen, Wei Zhou, Xiaoshuai Hao, **Mallesham Dasari**, Christian Timmerer, Hadi Amirpour
ACM International Conference on Multimedia (ACM MM), 2025
- [C18] TVMC: Time-Varying Mesh Compression with Volume-Tracked Reference Meshes
Guodong Chen, Filip Hacha, Libor Vasa, **Mallesham Dasari**
ACM International Conference on Multimedia Systems (ACM MMSys), 2025
- [C17] Fumos: Neural Compression and Progressive Refinement for Continuous Point Cloud Video Streaming
Junhua Liu, Zhicheng Liang, **Mallesham Dasari**, Fangxin Wang
IEEE Conference on Virtual Reality and 3D User Interfaces (IEEE VR), 2024
- [C16] StageAR: Markerless Mobile Phone Localization for AR in Live Events
Tao Jin, Shengxi Wu, Patrick Apicharttrisor, **Mallesham Dasari**, Anthony Rowe
IEEE Conference on Virtual Reality and 3D User Interfaces (IEEE VR), 2024
- [C15] MeshReduce: An Internet Accessible Scene Capture for 3D Telepresence
Mallesham Dasari, Tao Jin, Connor Smith, Kittipat Apicharttrisor, Anthony Rowe, Srinivasan Seshan
IEEE Conference on Virtual Reality and 3D User Interfaces (IEEE VR), 2024

- [C14] RenderFusion: Balancing Local and Remote Rendering for Interactive 3D Scenes
Edward Lu, Sagar Bharadwaj, **Mallesham Dasari**, Connor Smith, Anthony Rowe, Srinivasan Seshan
IEEE International Symposium on Mixed and Augmented Reality (IEEE ISMAR), 2023
- [C13] Scaling VR Video Conferencing
Mallesham Dasari, Edward Lu, Mike Farb, Nuno Pereira, Ivan Liang, Anthony Rowe
IEEE Conference on Virtual Reality and 3D User Interfaces (IEEE VR), 2023
- [C12] Cyclops: An FSO-based Wireless Link for VR Headsets
Himanshu Gupta, Max Curran, Jon Longtin, Torin Rockwell, Kai Zheng, **Mallesham Dasari**
ACM Special Interest Group on Data Communication (ACM SIGCOMM), 2022
- [C11] Swift: Adaptive Video Streaming Using Layered Neural Codecs
Mallesham Dasari, Kumara Kahatapitiya, Samir R. Das, Aruna Balasubramanian, Dimitris Samaras
USENIX Symposium on Networked Systems Design and Implementation (USENIX NSDI), 2022
- [C10] Internet Video Delivery using Neural Video Codecs
Mallesham Dasari, Samir R. Das
ACM International Conference on Mobile Computing and Networking – Student Workshop (ACM MobiCom S3), 2021
- [C9] dcSR: Practical Video Quality Enhancement Using Data-Centric Super Resolution
Duin Baek, **Mallesham Dasari**, Samir R. Das, Jihoon Ryoo
ACM International Conference on Emerging Networking Experiments and Technologies (ACM CoNEXT), 2021
- [C8] L3BOU: Optimized Super-Resolution Backhaul for 360-Degree Video Streaming
Ayush Kumar, John Murray, **Mallesham Dasari**, Michael Zink, Klara Nahrstedt
IEEE International Symposium on Multimedia (IEEE ISM), 2021
- [C7] PARSEC: Streaming 360° Videos using Super-Resolution
Mallesham Dasari, Arani Bhattacharya, Santiago Vargas, Pranjal Sahu, Aruna Balasubramanian, Samir R. Das
IEEE International Conference on Computer Communications (IEEE INFOCOM), 2020
- [C6] Advancing User QoE in 360-Degree Video Streaming
Sohee Park, Arani Bhattacharya, Zhibo Yang, **Mallesham Dasari**, Samir R. Das, Dimitris Samaras
IFIP Networking Conference (IFIP Networking), 2019
- [C5] Multiple Transmitter Localization under Time-Skewed Observations
Mohammad Ghaderibaneh, Mallesham Dasari, Himanshu Gupta
IEEE International Symposium on Dynamic Spectrum Access Networks (IEEE DySPAN), 2019
- [C4] Spectrum Protection from Micro Signals with Distributed Spectrum Patrolling
Mallesham Dasari, Mohammad Bershgal Atique, Arani Bhattacharya, Samir R. Das
Passive and Active Measurement Conference (PAM), 2019
- [C3] Impact of Device Performance on Mobile Internet QoE
Mallesham Dasari, Arani Bhattacharya, Santiago Vargas, Aruna Balasubramanian, Samir R. Das, Mike Ferdman
ACM Internet Measurement Conference (ACM IMC), 2018
- [C2] Scalable Ground-truth Annotation for Video QoE Modeling in Enterprise WiFi
Mallesham Dasari, Christina Vlachou, Shruti Sandhya, Kyu-Han Kim, Samir R. Das
IEEE/ACM International Symposium on Quality of Service (IWQoS), 2018
- [C1] Understanding User Perceived Video Quality using Multipath TCP
Sohee Kim Park, Arani Bhattacharya, **Mallesham Dasari**, Samir R. Das
IEEE Sarnoff Symposium, 2018

Journal Publications

- [J10] Implicit Surface Compression – with Good Old Discrete Cosine Transform and Motion Compensation
Tao Jin, Tianshu Huang, Shengxi Wu, **Mallesham Dasari**, Srinivasan Seshan, Anthony Rowe
ACM Transactions on Computer Graphics (ToG), 2026
- [J9] SceneHub4D: A Dataset and Evaluation Framework for 6-DoF VR Scenes
Jaehong Kim, Tao Jin, **Mallesham Dasari**, Srin Seshan, Anthony Rowe
IEEE Transactions on Visualization and Computer Graphics (IEEE TVCG), 2026
- [J8] 4DGStream: Variable Bitrate Dynamic Gaussian Splatting Streaming
Zhicheng Liang, Dayou Zhang, Linfeng Shen, Miao Zhang, Jian Zhang, Bin Ju, **Mallesham Dasari**, Fangxin Wang, Jiangchuan Liu
IEEE Transactions on Multimedia, 2025
- [J7] Grasp-HGN: Grasping the Unexpected
Mehrshad Zandigohar, **Mallesham Dasari**, Gunar Schirner
ACM Transactions on Embedded Computing Systems, 2025
- [J6] Edge-based physical asset and digital twin virtualization framework to support cognitive digital twins
Rolando Herrero, **Mallesham Dasari**
Journal of Internet of Things, 2025
- [J5] CleAR: Robust Context-Guided Generative Lighting Estimation for Mobile Augmented Reality
Yiqin Zhao, **Mallesham Dasari**, Tian Guo
Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (ACM IMWUT), 2025
- [J4] Paykan: Virtual reality gaming as a therapeutic tool for target panic disorder
Hesam Sakian Mohamadi, Faraz Bakhshi, Yoonas A Sekhavat, **Mallesham Dasari**, Kazem Gobadi Ansaroudi, Mahdi Ahmadzadeh Haji Alilou
Journal of Entertainment Computing, 2025
- [J3] Fumos: Neural Compression and Progressive Refinement for Continuous Point Cloud Video Streaming
Junhua Liu, Zhicheng Liang, **Mallesham Dasari**, Fangxin Wang
IEEE Transactions on Visualization and Computer Graphics (IEEE TVCG), 2024
- [J2] RoVAR: Robust Multi-Agent Tracking through Dual-Layer Diversity in Visual and RF Sensing
Mallesham Dasari, Ramanujan K. Seshadri, Karthikeyan Sundaresan, Samir R. Das
Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (ACM IMWUT), 2023
- [J1] The City as a Personal Assistant: Hyper-local Conversational Agent for Spatio-temporal Events
Utku Gunay Acer, Marc Van Den Broek, Chulhong Min, **Mallesham Dasari**, Fahim Kawsar
Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (ACM IMWUT), 2022

Workshop Publications

- [W3] XRAI Care: A Systems Perspective on Remote Assistance for Older Adults with XR and AI
Mallesham Dasari, Vyas Sekar
ACM CHI Workshop on Aging in Place, 2025
- [W2] Spatial Video Streaming on Apple Vision Pro XR Headset
Guodong Chen, Sizhe Wang, Dimitrios Koustoukoulous, Jacob Chakareski, **Mallesham Dasari**
ACM Workshop on Mobile Computing Systems and Applications (HotMobile), 2025
- [W1] In-operando Tracking and Prediction of Transition in Material System Using LSTM
Pranjal Sahu, Dantong Yu, Kevin Yager, **Mallesham Dasari**, Hong Qin
AI-Science'18: 1st International Workshop on Autonomous Infrastructure for Science, 2018

Demos

- [D2] Demo: Remote Human-Robot Collaboration in XR
Zhenwen Yang, Guodong Chen, Mayank Agarwal, Barath Balamurugan, **Mallesham Dasari**
ACM Workshop on Mobile Computing Systems and Applications (HotMobile), Demo Track, 2025 *Best Demo Award*
- [D1] MeshReduce: Split Rendering of Live 3D Scene for Virtual Teleportation
Tao Jin, Edward Lu, **Mallesham Dasari**, Kittipat Apicharttrisor, Srinivasan Seshan, Anthony Rowe
IEEE VR Workshops (IEEE VRW): Conference on Virtual Reality and 3D User Interfaces Abstracts and Workshops, 2024, pp. 1186–1189

Posters

- [P2] Capacitive Sensing-based Eye Tracking for XR Glasses
Aidan Hanson, Amr Kassab, **Mallesham Dasari**
ACM International Conference on Mobile Computing and Networking (ACM MobiCom), Poster Session, 2024 *SRG Award – 2nd Place Winner*
- [P1] Demystifying Hardware Bottlenecks in Mobile Web Quality of Experience
Mallesham Dasari, Conor Kelton, Javad Nejati, Aruna Balasubramanian, Samir R. Das
ACM SIGCOMM Posters and Demos, 2017

Thesis

- 2021 Improving the Quality of Experience in Multimedia Systems, 2021

Patents

- 2025 Time-Varying Mesh Compression
Mallesham Dasari, Guodong Chen; Provisional patent filed.
- 2019 Estimating Video Quality of Experience
Mallesham Dasari, Shruti Sandhya, Christina Vlachou, Kyu-Han Kim; US Patent 15884857.
- 2018 Systems and Methods for Motion Estimation for Coding a Video Sequence
Mallesham Dasari, Himanshu Sindwal, Naresh Vattikuti, SRV Maddela; US Patent 9930357.

Professional Activities

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| Co-Founder & Steering Committee Chair | ACM Emerging Multimedia Systems (EMS) Workshop, 2023 – Present |
| Associate Editor | IEEE Transactions on Circuits and Systems for Video Technology, 2025, 2026 |
| Editorial Board Member | ScienceDirect International Journal on Signal Processing: Image Communication, 2025-Present |
| Guest Editor | ACM Transactions on Sensor Networks - Special Issue on Immersive Computing, 2025 |
| General Chair | NSF Workshop on Networking and Systems Challenges in Immersive Computing, 2025 |
| Technical Program Co-Chair | ACM EMS Workshop at SIGCOMM Conference, 2026
IEEE MSN Conference, Track of Smart Cities, Metaverse and Applications, 2026
ACM Immersive Computing Workshop at ACM MobiCom Conference, 2024
ACM EMS Workshop at SIGCOMM Conference, 2023
IEEE WoWMoM PhD Forum, 2023
ACM SIGMOBILE Community Engagement Program Seminar, 2022
ACM SMS Workshop at MobiSys Conference, 2021
ACM S3 Workshop at MobiCom Conference, 2019
Graduate Student Research Conference at Stony Brook University, 2019 |

Technical Program Committee Member	ACM Special Interest Group on Data Communication (SIGCOMM), 2026
	USENIX Symposium on Networked Systems Design and Implementation (NSDI), 2025
	ACM Conference on Embedded AI and Sensing Systems (SenSys), 2026, 2025
	IEEE International Conference on Virtual Reality (VR), 2026, 2025
	IEEE International Conference on Communication Systems & Networks, 2026, 2025, 2024
	ACM International Conference on Conference on Emerging Networking EXperiments and Technologies (CoNEXT), 2026, 2025, 2024, 2023
	ACM Internet Measurement Conference (IMC), 2026, 2025, 2024, 2023, 2022
	ACM Multimedia Systems Conference (MMSys), 2027, 2026, 2025, 2024, 2023, 2022
	ACM NOSSDAV Workshop, 2026, 2025, 2024, 2023, 2021
	USENIX Annual Technical Conference (ATC), 2024
	IEEE International Conference on Distributed Computing Systems (ICDCS), 2024
	ACM SIGCOMM Conference Artifact Evaluations, 2023
	ACM DistributedML Workshop, 2023, 2022
Reviewer	ACM/IEEE Transactions on Networking, 2024, 2023
	IEEE Transactions on Multimedia, 2026, 2024
	IEEE Communications Letters, 2024
	ACM Multimedia Conference (MM), 2025, 2024, 2023, 2022, 2021
	ACM Journal on Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT), 2026, 2022
	ACM Transactions on Sensor Networks, 2020
	IEEE Pervasive Computing, 2022
	IEEE Internet Computing, 2019
Publicity Chair	IEEE Pervasive Computing, 2023, 2022

PhD Student Advising

Majd Khalaf	PhD Student at Northeastern University. Thesis: Building Low Power XR and AI Glasses. Fall 2025 - Present
Guodong Chen	PhD Student at Northeastern University. Thesis: Time-Varying Mesh Compression for XR. Fall 2024 - Present
Zhewen Yang	PhD Student at Northeastern University. Thesis: 3D Video Streaming for XR. Spring 2025 - Present

MS Thesis Committee

Sizhe Wang	MS Thesis Student at Northeastern University. Thesis: Cellular vs. LEO Satellite Networks on the Wheels in Non-Continental US. Fall 2024
Nathan Augenbraun	MS Thesis Student at Northeastern University. Thesis: Investigating Communication aware Pruning of CNNs for Distributed Inference over a Network. Spring 2025

MS and UG Student Mentorship

2025	Mayank Chadha - MS Student at Northeastern University. Project: Human Robot Collaboration in XR.
	Barath Balamurugan - MS Student at Northeastern University. Project: XRFab - Workforce Training in XR for Semiconductor Manufacturing.

- 2024 Amr Kassab - PhD Student at Northeastern University.
Project: Capacitive Sensing-based Eye Tracking for XR Devices.
- Aniket Fasate - MS Student at Northeastern University.
Project: Capacitive Sensing based Eye Tracking for XR Devices.
- Yiqin Zhao - PhD Student at WPI.
Project: Lighting Estimation for Mobile AR Environments.
- 2022 & 23 Edward Lu - 1st Year PhD Student at Carnegie Mellon University.
Project: Hybrid Rendering of Massive Mesh Models for Augmented Reality.
- Tao Jin - 2nd Year PhD Student at Carnegie Mellon University.
Project: Volumetric Video Streaming.
- Syeda Sheherbano Rizvi - MS Student at Carnegie Mellon University.
Project: Scaling VR Video Conferencing.
- OurCS Mentor: Taught Computer Science Research Methodology to Undergraduate Women Students at a two-day Workshop at Carnegie Mellon University.
- 2021 Scott Burgert & Dylan Scott - Undergraduate Students at Stony Brook University.
Project: Multiplayer AR Gaming using ARCore Tracking Engine.
- Nihal Goalla - MS Student at Stony Brook University.
Project: Video Streaming using Neural Codecs.
- Ayush Sarkar & John Murray - MS Students at UIUC and UMASS Amherst.
Project: 360-degree Video Streaming using Super-Resolution Backhaul.
- 2020 & Before Gargi Saha, Caeley Kardell, Rohit Bhal, Vipul Ghandi, Arpita Abrol, Rhea Manjrekar, Binayak Das, Aakash Deep - MS & UG Students at Stony Brook University.

Student Academic Leadership

- 2020 Acting President of Graduate Student Organization, Stony Brook University.
Responsibility: Leading an organization of $\approx 10,000$ graduate students with \$625,000 funds across more than 50 departments on campus.
Key achievement: Played a significant role in eliminating fees for all full-time PhD students.
- 2019 Elected Vice President of Graduate Student Organization, Stony Brook University.
Responsibility: Managing student leaders from different departments, organizing events and initiating new activities for graduate students.
Key accomplishment: Created a special interest group on diversity, equity, and inclusion (SIGDEI) to tackle the issues faced by underrepresented students.
- 2018 **Founding** President of CS Graduate Student Organization, Stony Brook University.

Seminars and Invited Talks

- 6/2026 Designing Immersive 3D Telepresence Systems, IEEE ComSoc Invited Guest Lecture, Virtual.
- 6/2026 Open4D: An Open Source Effort for Dynamic 4D Geometry, NIST, Gaithersburg, MD.
- 6/2026 Open4D: An Open Source Effort for Dynamic 4D Geometry, AWE, Long Beach, CA.
- 6/2026 On Spatial Computers, JITS University, India.
- 6/2026 On Spatial Computers, MITS University, India.
- 2/2026 Bringing Spatial Intelligence to Life, invited talk at Georgia Institute of Technology, Atlanta.
- 12/2025 4D Scene Capture and Compression, invited talk at University of Padova, Italy.
- 12/2025 4D Scene Capture and Compression, invited talk at VCIP Conference, Austria.
- 4/2025 TVMC: Time-Varying Mesh Compression, invited talk at UIUC IMMERSE Symposium.
- 3/2025 TVMC: Time-Varying Mesh Compression, invited talk at NSF Workshop.
- 2/2025 Designing Networked Systems for Spatial Intelligence, IIT Madras, India.
- 2/2025 Designing Networked Systems for Spatial Intelligence, IIT Delhi, India.

2/2025 Designing Networked Systems for Spatial Intelligence, IIIT Delhi, India.
 2/2025 Designing Networked Systems for Spatial Intelligence, IIT Hyderabad, India.
 4/2023 Designing Networked Systems for Immersive Experiences, UIUC.
 3/2023 Designing Networked Systems for Immersive Experiences, Arizona State University.
 2/2023 Designing Networked Systems for Immersive Experiences, Northeastern University.
 11/2022 Networking Challenges in the Pursuit of Immersive Telepresence, Northeastern University.
 11/2022 Networking Challenges in the Pursuit of Immersive Telepresence, Boston University.
 04/2022 Adaptive Video Streaming using Neural Video Codecs, University of Texas Austin.
 04/2022 Adaptive Video Streaming with Layered Neural Codecs, USENIX NSDI Conference, Seattle.
 03/2022 Recent Advances in Internet Video Delivery, Arizona State University.
 10/2021 Video Streaming using Neural Video Codecs, ACM S3 Workshop at MobiCom Conference.
 02/2021 Deep Video Compression, Graduate Research Day at Stony Brook University.
 04/2020 Streaming 360-Degree Videos using Super-Resolution, IEEE INFOCOM Conference.
 03/2019 Spectrum Protection from Micro Transmissions, PAM Conference, Patagonia, Chile.
 11/2018 Impact of Device Performance on Mobile Internet QoE, ACM IMC Conference, Boston.
 06/2018 Scalable Ground-truth Annotation in Video QoE Modeling, IWQoS Workshop, Banff, Canada.
 18/2017 Demystifying Hardware Bottlenecks in Web QoE, ACM SIGCOMM Posters Session, LA.
 03/2016 Intro to Computer Programming, Google IgniteCS Program for Middle School Students, MO.
 05/2015 Industry Speaker: Challenges of Mobile Adhoc Networks, IEEE ICACCI, Kerala, India.