SANJAY BHARGAV DHARAVATH

sanjaytinku810@gmail.com ⋄ +91 81062 52563 ⋄ Linkedin ⋄ Github ⋄ Scholar

EDUCATION

Integrated Master's of Science July 2019 - July 2024
Physics
Indian Institute of Technology Kharagpur, India.
Advisors: **Prof. Pragya Shukla**
Thesis: Entanglement dynamics in monitored quantum circuits with multi-parametric unitary evolution

PUBLICATIONS

Peer-Reviewed Conference

[C1] Dam T, **Dharavath S**, Alam S, Lolith N, Chakraborty S, and Feroskhan M,"AYDIV: Adaptable Yielding 3D Object Detection via Integrated Contextual Vision Transformer", ***IEEE International Conference on Robotics and Automation (ICRA 24) , Japan, 2024***.

[C2] **Dharavath S**, Dam T, Chakraborty S, Roy P, Maiti A, "Quantum Inverse Contextual Vision Transformers (Q-ICVT): A New Frontier in 3D Object Detection for AVs", ***ACM International Conference on Information and Knowledge Management (CIKM 24)***.

EXPERIENCE

Research Fellow August. 2024 - present
CVIT lab, International Institute of Information Technology Hyderabad (IIITH).

· Developing a robust rendering model for indian driving datasets. Designing new trajectory methods without HD maps for traffic simulation.
· Supervised by **Prof. C V Jawahar** and **Dr. Zakaria Laskar**.

Computer Vision Research Internship April. 2023 - December. 2023
Saab-NTU Joint Lab, Nanyang Technological University, Singapore.

· Developed advanced multi-modal fusion and few-shot learning models for 3D object detection. Designed robust feature alignment for large-scale datasets in autonomous vehicles, enabling seamless class addition.
· Supervised by **Dr. Tanmoy dam**.

Deep Learning Research Internship March. 2022–July. 2022
Indian Institute of Technology, Kharagpur.

· Developed innovative methods for seismic inversion using Orthogonal Multi-scale Frequency Domain U-Net with Attention, hybrid attention mechanisms, and Graph Attention Networks.
· Supervised by **Prof. Aurobinda Routray**.

RESEARCH INTERESTS

Neural rendering, 3D Reconstruction, Computer Vision, Geometric Computer vision, Multi-Modal Learning.

TECHNICAL SKILLS

Programming	Proficient in Python, Working knowledge of MATLAB and C++
Software Frameworks	PyTorch, NumPy, OpenCV, PyTorch3D, TensorFlow.

AWARDS AND HONORS

• Student Participation Travel Grant for IEEE ICRA, 2024