Kaivalya Shah

Specializing in Advanced Computer Vision and ROS Development.

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Portfolio GitHub LinkedIn

EDUCATION

PDEU, Gandhinagar — *Btech* in CSE + Minor in Robotics

July 2022 - PRESENT
Current year – 3rd
CGPA: 8.7

EXPERIENCE

IITGN ROBOTICS, Gandhinagar — *Research Intern*

May 2024 - PRESENT

Developed pipelines for computer vision and 3D reconstruction analysis projects under Prof Harish PM.

iNav Labs (Startup), PDEU — *ROS Intern*

March 2024 - May 2024

ROS developer for autonomous car modulation using Jetson Nano

PROJECTS

6DOF Live Pose Estimation and Tracking — *With ROS Pkg*

Live transformation matrix from camera to object with depth camera upto 90 fps.

Novel 3D Reconstruction (NeRF + LoFTR) — *RGBD to .obj*

NeRF Textured object reconstruction even when visual texture is largely absent via Local Feature Matching .

Multi Purpose Differential Drive Robot — *ROS2 pkg*

URDF + Gazebo World , Capabilities : SLAM, NAV2 Stack, RGBD vision, Point cloud generation.

YoloV8 and Midas — *ROS2 pkg*

Object detection with monocular depth estimation.

SKILLS

Hands On - CV, NeRF, LoFTR, LLM, ViT, CLIP, LlaMA/VA.

Linux - ROS, Gazebo, SLAM, Nav2, CUDA.

Theory of Robotics and Control System.

Hardware hands on - Arduino, ESP32, Jetson.

CAD - Fusion 360.

Tools - Docker, Conda, Git.

LIBRARIES

PyTorch, TensorFlow, Open3D, Keras.

Numpy, Scikit-learn.

LANGUAGES

C++, Python, Java, R, MatLab, MD

HOBBIES

Football

Flute

Sanskrit

Graphic Designing