

I am Sai, currently I am doing research with Professor Nitin on Deep optical methods on edge devices which can be deployed on drones along with master's in robotics. Some of my projects are structure from motion where we implemented full SLAM pipeline in python for our institute building and implemented NeRF where we trained for full 3D reconstruction of the Lego model using sparse images.

Other projects include, face swap using triangulation and thin plate spline methods and finally panorama stitching project where we identified stitched an assorted images to create a seamless panorama.

Prior to this in my undergrad, I worked on aerial vehicles as part of my master's thesis back in India where I did research on collaborative navigation between aerial and ground vehicle. In this project we built an autonomous aerial vehicle from scratch which performs obstacle avoidance using stereo camera and an onboard TX2 companion PC. these features were extracted and sent to ground vehicle which then localizes and plans an optimum path

I have worked on autonomous ground vehicles where I have developed navigation stack which identifies lanes, barrels and other obstacles using camera and a 2D lidar. after that

In between my current master's and undergrad, I worked as senior C++ software developer in financial Firm Quantitative brokers.