

# Skills

# **Experience**

# Darshan Kadiluvagilu Thimme Gowda

## **Senior Robotics Engineer**

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Robot Operating System(ROS), ROS2

Python, C++, Shell script

Gazebo Simulator, Rviz Tool

OpenCV, Pointcloud Library(PCL)

Autonomous Mobile Robotics(AMR), Autonomous Flying Systems

Github, Bitbucket, Docker

PX4, Turtlebot, Rplidar, RGB-D, Hukoyo, Stereo camera sensors

## **Infovision Solutions India Pvt Ltd** / Robotics Engineer

JAN 2021- PRESENT, Bengaluru, IN

Working as a Robotics Software developer *in* building autonomous drone software stack.

- Configured SITL, PX4, and MAVROS to simulate a quadrotor system.
- Worked on Manual drone control, Bezier line path generation, and Collinearity concept-based path pruning algorithms.
- Worked on 3D mapping tool, 3D global planning, 2D local costmap generation, static & dynamic object detection, and 2D local planning.

# FluxAuto / Robotics Engineer

JULY 2019 - DEC 2020, Bengalur, IN

Worked as a Robotics Software Engineer for the development of indoor autonomous vehicles.

#### Company projects:

#### 1. Autonomous golf cart.

- RTAB SLAM algorithm & sensor fusion to enhance state estimation.
- Ackermann steering kinematics-based control algo. development.
- Customisation of ROS navigation stack.

#### 2. Autonomous forklift simulation framework for warehouse logistics.

- Forklift vehicle extraction, sensors and control plugins development.
- Warehouse environment creation and construction of 2D grid maps.
- Loading, unloading and emergency service call scripts development.
- State machine framework implementation to control logistics I/O.

## Wipro Technologies Pvt. Ltd / Robotics Internship Trainee

AUGUST 2018 - JUNE 2019, Bengaluru, IN

Worked as a Robot Operating System (ROS) software development Intern.

- Hands on with turtlebot, turtlebot2 and UR5 robots
- Practical implementation of online Mapping, SLAM, EKF, turtlebot navigation, auto docking, and human following algorithms.
- Autonomous quadrotor simulation.

#### **Education**

# The National Institute of Engineering(NIE) / Master of Technology

SEPTEMBER 2017 - JUNE 2019, MYSURU, IN

Specialization: Industrial Automation and Robotics(IAR) - 9.02CGPA/10

## Ghousia College of Engineering / Bachelor of Engineering

AUGUST 2013 - JULY 2017, RAMANAGARAM, IN Specialization: Mechanical Engineering - 70.76 %

## Mandavya PU College / PCMB

AUGUST 2011 - JUNE 2013, MANDYA, IN

Percentage: 70.81 %

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# **Academic Projects**

## M.Tech project-

Autonomous navigation and path planning using quadrotor model in ROS.

## Internship projects—

- 1. Turtlebot autonomous navigation using hokuyo lidar in ROS.
- 2. Mapping environment based on human tracking robot odometry & RPlidar.

## Certifications

Flying Car and Autonomous Flight Engineer Nanodegree, Udacity Python 3, Sololearn

# Extra-curriculums & Awards

- 1. Attained a workshop on "Artificial Intelligence and its application towards Robotics" as a Resource Person at The NIE college during 2019-2020.
- 2. Recognised as "Most Innovative Player Award" for an excellent contribution towards Robotics projects at Digit7 R&D labs during 2021-2022.

# Languages

English, Kannada, Hindi