

# Adithya Mylavarapu Naga

Portfolio : [adithyamn.github.io](https://adithyamn.github.io)  
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Location : Enschede, Netherlands



## About Me

Enthusiastic and Organized Robotics Developer from the University of Twente, Netherlands. I utilize my interpersonal skills to promote effective teamwork, breaking down problems into accessible steps.  
Hobby: Ultimate Frisbee, Bouldering

## Education

### Master's in Systems and Control

Robotics and Mechatronics  
Sept 2021 - July 2024  
University of Twente, The Netherlands

### B.Tech Mechatronics Engineering

June 2017 - July 2021  
S.R.M. Institute of Science & Technology, India

## Skills

### Software Development

- ◇ C++
- ◇ ROS/ROS2
- ◇ Gazebo
- ◇ MATLAB/Simulink
- ◇ Docker
- ◇ Git
- ◇ CasADi

### Coursework

- ◇ Optimal Control
- ◇ Systems Dynamics
- ◇ Motion Planning
- ◇ Computer Vision
- ◇ SLAM
- ◇ Trajectory Optimization

Languages : English (C1) ◇ German (B1)

## Experience

### Student Assistant - Advanced Software Development for Robotics

- Teaching assistant for Advanced Software Development for Robotics Course
- Hands on Experience with control of real-time mechatronic setup using RTOS and RPi

Feb - April 2023/Nov - Feb 2022

University of Twente

Xenomai, ROS2(C++)

### Robotics Intern - Aziobot B.V.

- Gained experience in robot design and simulation of Autonomous SLAM in ROS.
- Implemented on Self-Exploration and Mapping for a floor scrubber robot and optimized navigation.

Sept - Jan 2023

Aziobot B. V.

ROS(C++), RViz, Gazebo

## Projects

Project Details and Additional Contributions

### Safety Metric for Human-Aerial Robot Collaboration, in presence of Aerodynamic Disturbances

- Designed an NMPC for UAVs to optimize trajectory under aerodynamic disturbances in real-time.
- Implemented Simulink and Gazebo Simulation for safety analysis.

July 23 - July 24

Master Thesis

MATLAB/Simulink, CasADi

### Development of a Collaborative Multi-Robot System for Material Handling

- Designed an algorithm to maintain multi-robot formation in object transportation.
- Implemented an path planning algorithm to plan a trajectory for the robots.

Sept - Jan 2023

Bachelor Thesis

ROS(C++), RViz, Gazebo

## Behavioral Cloning in Autonomous Vehicles using Deep Learning

- Implemented a self-driving car using behavioral cloning in the Unity Self-Driving Car Simulator
- Simulated Autonomous navigation on new tracks using LeNet CNN.

Sept - Jan 2023

Project

Unity, Python, Keras

## Achievements & Contributions

Patent : Nov 2020

An On-board Hardware Addressing System for Modular Reconfigurable Robots

Publication : April 2022

Composite Robot Algorithm and Multi-Robot Formation Strategy for Collaborative Material Handling Systems

Awards : Runner's Up

Make-a-thon 4.0 by Lema Labs - Robotics Hackathon

## Certificates

Feb 2020 - July 2020

Self - Driving Cars Specialization - University of Toronto (Coursera)

Jan - June 2020

Control of Mobile Robots - Georgia Institute of Technology (Coursera)

Nov - January 2020

Autonomous Mobile Robots - ETH Zurich (Edx)

Note: Projects and additional contributions are detailed in my portfolio → [adithyamn.github.io](https://adithyamn.github.io).