Adithya Mylavarapu Naga

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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.

Education

M.Sc Systems and Control

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

B.Tech Mechatronics Engineering

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

Skills

Software Development

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

Coursework

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

Languages : English (C1) ◇ German (B1)

Experience

Student Assistant - Advanced Software Development for Robotics

Jan - Apr 2023
University of Twente, Enschede
Nov - Feb 2022

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

Skills : Xenomai, ROS2, C++

Robotics Intern

Sep - Jan 2023
Aziobot B.V., Eindhoven

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

Skills : ROS, C++, RViz, Gazebo

Projects

Portfolio Link ⟶

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

July 23 - July 24

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

Skills : MATLAB/Simulink, CasADi.

Development of a Collaborative Multi-Robot System for Material Handling

Jan-June 2021

- Designed an algorithm to maintain multi-robot formation in object transportation.
- Developed an efficient path planning algorithm for the robots in formation.

Skills : Python, Firebase

Behavioral Cloning in Autonomous Vehicles using Deep Learning

Jan - Apr 2021

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

Skills : PyTorch, Python, Unity

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

Self - Driving Cars Specialization - University of Toronto (Coursera)	July 2020
Control of Mobile Robots - Georgia Institute of Technology (Coursera)	Jan 2020
Autonomous Mobile Robots - ETH Zurich (Edx)	Nov 2020

Note: Projects and additional contributions are detailed in my portfolio adithyamn.github.io.