ADITHYA MOHAN

herrmohan1394@gmail.com | Portfolio | Linkedin

OBJECTIVE

I work at the crossroads of robotics, safety, and intelligent decision-making and building agents that can learn, adapt, and act reliably even when faced with adversarial inputs. From training DRL agents in simulation to testing them on real vehicles equipped with LiDAR, GNSS, and camera systems, I aim to bridge the gap between research and reality in embodied AI.

RELEVANT EXPERIENCE

Technische Hochschule Ingolstadt
AI Researcher - Project Lead 03/2023 - Current
Developed and led the project of a full autonomous driving stack with ROS2 for real-car deployment and research in DRL under adversarial attacks.

Franka Emika GmbH
AI Robotics Engineer 08/2022 - 12/2022
Designed learning engine and modular C++ test framework for Franka arms. Developed safe ML pipelines and guided safety practices.

Quantum Systems GmbH
Robotics Software Engineer 09/2021 - 07/2022
Path planning GUI with PyQt for UAV landing. Developed drone task automation stack, unit tests, and CI/CD tools.

ARE23 GmbH
Junior Robotics Engineer 08/2020 - 08/2021
ROS-based planning, perception using OpenCV/Keras, AWS workflows, & web deployment. Built internal testing suites.

Innok Robotics GmbH
Master Thesis Student 02/2020 - 08/2020
Developed robot diagnostics tool and visualization pipeline in Python and ROS.

Flex India Pvt. Ltd
Senior Analyst 08/2016 - 08/2018
Led material planning and lean automation initiatives, applying analytics (Python, R, SQL, Tableau) to optimize supply chain operations.

SKILLS

Languages: C++, C, Python, Matlab, Simulink
Technologies: ROS/ROS2, AWS, Azure

EDUCATION

Technische Hochschule Ingolstadt
Ph.D. Artificial Intelligence *(Dr. rer. nat.)*
01/2025 - Current, Ingolstadt, GER

Technische Hochschule Deggendorf
M.Eng. Mechatronics & Cyber Physical Systems
03/2019 - 03/2021, Deggendorf, GER

Anna University
B.Eng. Mechanical Engineering
09/2012 - 05/2016, Chennai, IN

SELECTED PUBLICATIONS

[1] The Evolution of Criticality in Deep Reinforcement Learning (ICAART'25)
[2] Advancing Robustness in Deep Reinforcement Learning with an Ensemble Defense Approach (ITSC'25)
[3] UrbanIng-V2X: A Large-Scale Multi-Vehicle, Multi-Infrastructure Dataset Across Multiple Intersections for Cooperative Perception (NeurIPS'25)

ACADEMIC ACTIVITIES

REVIEWING for ITSC' 2025 Conference
RECENT TALKS: Talk on Adversarial Attacks in Deep Reinforcement Learning: A Call for Robust Defenses.
TEACHING:
[1] Practical Programming - Python Basics
[2] Scientific Seminar
[3] AI Project
[4] Principles of Autonomy & Decision Making
[5] Grundlagen der C-Programmierung