24. Oktober 2023

Masterarbeit / Studienarbeit / Forschungsarbeit

Develop a Trajectory Planning Algorithm for Automated Driving

Beschreibung

The advancement of automated driving technology has been a subject of extensive research and development in recent years. One of the fundamental challenges is enabling them to navigate safely and effectively in various real-world scenarios. Lane detection, a crucial aspect of perception systems, plays a pivotal role in understanding a vehicle's environment and position relative to the road.

This work explores the integration of lane detection results with trajectory planning to achieve automated driving with precise lane-following capabilities. By leveraging the output of lane detection algorithms, this research aims to design and implement a trajectory planning system that enables vehicles to navigate autonomously while staying within their lanes.

Tasks:

- Comprehensive literature review on Trajectory Planning

- Develop trajectory planning algorithms

- Implement the algorithms in an aotumated vehicle and compare various algorithms

- Documentation and presentation of the results

Beginn

ab sofort

Voraussetzungen

- Gute Kenntnisse in Python, Matlab/Simulink, ROS2

- Eigenständige, strukturierte und methodische Arbeitsweise

- Sehr gute Deutsch- und Englischkenntnisse

- Vollständige Bewerbungsunterlagen (Lebenslauf, aktueller Notenspiegel)

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Anmeldung und FAQ's zum Thema wissenschaftliche Arbeiten – hier klicken