TUM

Bachelor's Thesis

Analysis of Teleoperation Requirements for Self-Driving Car Failures

This work can be done in German on English.

Teleoperator's role in autonomous driving is to take remote control over an autonomous vehicle in case the system fails or encounters any unknown traffic situation it cannot handle on its own. Although it is possible to predict these failures and notify the operator in advance, it will still require some time to become aware of the current situation until the vehicle can be controlled safely. The objective of this project is to analyze the requirements to obtain full situation awareness.

Your tasks:

1. Set up a teleoperation testbed using Carla Simulator [1]
2. Analyze process from take-over request until full vehicle control
3. Analyze influence of different sensor information on situation awareness

Requirements:

1. Experience Python and Linux Shell

References:

[1] http://carla.org/

Prerequisites

Python, Shell, Linux

Advisors

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