

To all interested students



Student for assistance with 3D simulations in the context of autonomous driving

Simulations are an essential part of training and testing autonomous driving functions and come with a range of benefits over real-world experiments. Game engine-based 3D simulation environments such as CARLA, Microsoft AirSim, IPG CarMaker or NVIDIA DriveSim offer versatile possibilities for the simulation of sensor technology, vehicle dynamics, etc.

I am in search for a student (m/f/d) to support me with configuration, implementation and possibly extension of simulation environments (primarily CARLA).

Tasks

- Integration of our AV software stack with CARLA for testing and data collection.
- Integration of available open-source AV software stacks (openPilot, Autoware, ...) with CARLA
- Implementation of scripts for dynamic creation and resimulation of traffic scenarios in CAR-LA
- Creation of new maps and assets for CARLA and Unreal 4
- General support in software development (primarily Python) in the context of simulations

What we expect

- Good knowledge and experience with Python
- Basic Linux knowledge and experience
- Basic knowledge of 3D modeling (Blender) or willingness to acquire such
- Willingness and ability to acquire new technical knowledge and understand scientific papers
- Optional: Basic knowledge in the field of machine learning

Required documents

- Cover letter (3-4 sentences)
- Brief CV (max. 2 pages)
- Excerpt of latest academic achievements

Please email applications to muetsch@kit.edu.