

Side job, internship

Data collection and analysis for imitation learning

Most vehicles in intralogistics are driven manually, as human drivers are superior to automated systems in many respects from today's perspective. In order to harness human capabilities for automated systems, human driving behavior is to be simulated in a logistics environment and used to generate synthetic data sets. Based on this, an industrial truck (FFZ) is to be enabled via imitation learning to autonomously execute driving movements based on the implicit knowledge of experienced drivers.

Your tasks

In the LernFFZ project, we collect driving data from industrial trucks both in real environments and in simulations using multiple sensor modalities (e.g., camera, ToF, IMU). This data forms the basis for the development and training of imitation learning models that replicate the driving behavior of FFZ.

- Independent recording of driving data in a simulation environment (NVIDIA Omniverse) in various test scenarios
- Further development of scenarios in the simulation environment
- Support in recording real driving data (setup, calibration, scenario design)
- Preparation, analysis, and evaluation of data (quality testing, statistics, visualization)
- Development and integration of new evaluation metrics for training and test data (e.g., trajectory deviation)

Would you like to contribute to advancing autonomous and safe industrial trucks in practice?

Then we look forward to receiving your application!

Your profile

Are you studying

- Computer Science
- Electrical Engineering
- Mechatronics
- Mechanical Engineering
- or a similar subject

and would like to apply your theoretical knowledge in practice? Would you also like to familiarize yourself with new topics independently and deepen your knowledge in the field of simulation and analysis? Then you've come to the right place!

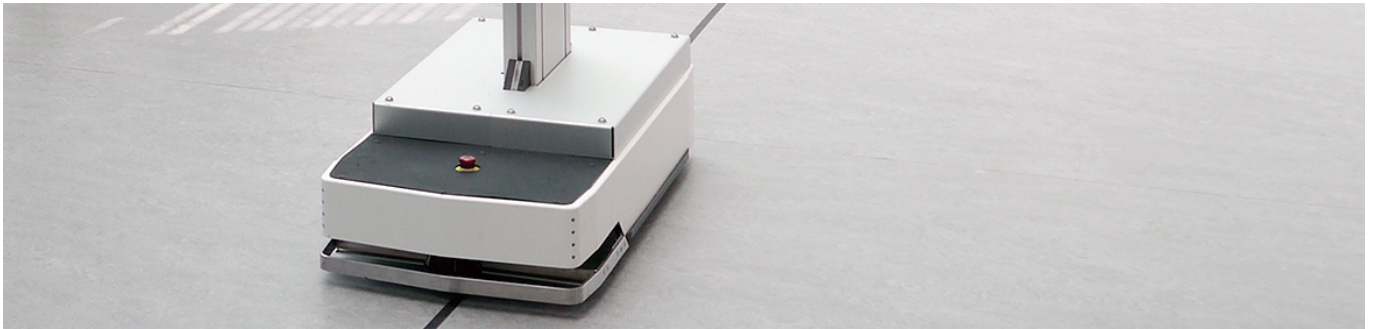
It would be ideal if you also:

- Have good written and spoken German skills
- Have programming skills in Python and data analysis (e.g., NumPy, pandas, matplotlib)
- Have experience with ROS/ROS2, Git, and Linux (Ubuntu)

Want to write a thesis after your internship or part-time job? No problem, we are happy to support you and will definitely find an exciting topic!

We offer

- Appropriate remuneration for a part-time job
- Independent work
- Flexible working hours
- Well-equipped workplaces
- Possibly long-term cooperation



Bitte sende deine aussagekräftige Bewerbung in einer einzigen PDF-Datei an jobs@iph-hannover.de.

Die Bewerbung muss Anschreiben, Lebenslauf sowie Prüfungsleistungen des Studiums / Zeugnisse enthalten.

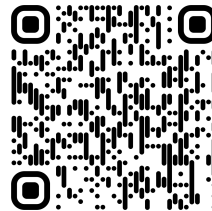
Contact



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