Intelligent Vehicles Lab

HM Hochschule München University of Applied Sciences

Research Master
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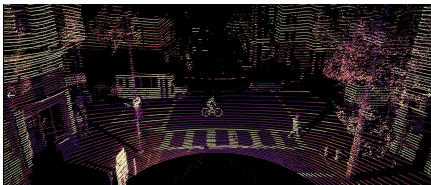Figure 1: Agile-X Scout Mini with Li-DAR and CU. [global.agilex.ai]

Figure 2: Traffic scene measured by the same LiDAR sensor used by our Lab. [ouster.com]

Contact

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Research Master | Autonomous Vehicle Sensors

Description

- Autonomous vehicles hold the potential to revolutionize transportation, enabling safer roads, efficient mobility, and enhanced accessibility for all, while also reducing traffic congestion and environmental impact.

- Therefore, the Intelligent Vehicles (IV)-Lab is looking for a **Research Master (m/f/d)** to support research in the field of autonomous driving starting in the coming winter semester on a self driving car with various sensors.

Your Project

- Set up the Agile-X Scout Mini from start to finish (see Figure 1)

- Define a sensor setup (Camera(s) and LiDAR) to detect your surroundings using Autoware and process it to detect objects (see Figure 2)

- Create a data pipeline to control the robot based on your processed data

- **Goal**: Your robot should be able to drive autonomously between location beacons on the hallway of the building

- **Optional Extension**: Perform a full SLAM[1] operation in the process

Your Profile

- Willingness to learn and interest in the topic of autonomous driving

- Ability to work independently, conscientiously, and accurately

- Previous experience with Python is required

- Previous experiences with Linux, Bash, and git are a plus

What we offer

- Gaining first experiences in one of the most promising technical fields of modern times

- Guidance and tailored lectures across multiple universities in Munich

- Supervision and close cooperation with a PhD candidate in the corresponding field

- Optional extension to an SHK-position with flat-rate payment

Does this appeal to you? Are you interested in the field of autonomous driving? Then reach out to us via mail and send a short introduction, your current grade report, and a cv with a photo.