

Student Assistant (m/f/d)

Safety Assurance for Meta-Learning in Autonomous Driving

Motivation

Motivation: Artificial intelligence (AI) is becoming increasingly popular in autonomous driving research to improve performance and reduce human errors. Reliability and safety of these systems is critical to achieve widespread deployment. Using meta-learning approaches to improve AI systems is a promising way to advance the state of the art in autonomous driving. However, to ensure safe deployment, safety assurance methods that provide reliable guarantees of system performance are needed.

Task description

We are looking for a highly motivated student to perform supporting research on safety assurance for meta-learning approaches in autonomous driving systems. You will be responsible for the following topics:

- Conducting a systematic review of existing security assurance methods for AI systems
- Investigating the safety assurance requirements of autonomous driving with AI systems
- Considering the relevance and transferability of existing approaches to the field of meta-learning, taking into account autonomous driving requirements
- Implementation and investigation of selected approaches for proof of concepts

Requirements

- Interested in supporting research in autonomous driving
- Strong theoretical and practical background in machine learning
- First experiences with techniques and methods of safety assurance

The weekly working time will be agreed upon by arrangement. The working days can be set flexibly. You can start immediately.

If you have any questions, please feel free to contact Lars Ullrich (see below).

Contact

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