

Student Assistant / Thesis

Software Development in the UNICARagil project

Problem Statement

Germany's leading universities in the field of automated driving have joined forces with selected specialists from industry in the BMBF funded UNICARagil project to rethink automated vehicles and their architecture. Based on the latest research on connected and automated driving, disruptive modular architectures in hardware and software for automated vehicle concepts are developed.



I11 is responsible for the digital architecture in the UNICARagil project, which can be separated in two areas. The first area is concerned with the conceptual design and development of a service-oriented software architecture that will be run on a distributed hardware architecture. This architecture will be used for implementing all on-board functions of the vehicles. The second area deals with the development of cloud-based functionalities. This includes fleet management functions as well as sensor fusion of multiple vehicles. To support the project we offer student assistant positions as well as BA/MA theses.

Your Tasks

- ▶ Support in the design and implementation of the software architecture
- ▶ Porting of code on automotive-grade microcontrollers
- ▶ Development of tooling and modelling tools
- ▶ Support in the development of the cloud functions

Your Profile

- ▶ Reliable and motivated student
- ▶ Experience with C/C++, Python
- ▶ Experience with embedded systems and Linux
- ▶ Experience with Web development

Our Offer

Positions are to be filled as soon as possible and are limited to 3 months. If suitable, an extension is possible/desired. The regular weekly working hours are 7-9 hours.

Contact

Please read our [Instructions for Applications](#).

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