

NEW SOLUTIONS EMERGE WHEN THINKING ISN'T HARD-WIRED.

SHARE YOUR PASSION FOR INNOVATIVE SYSTEM FUNCTIONS.



At BMW Car IT, a wholly owned subsidiary of BMW AG, we live and breathe software. We design and implement embedded software for the electronic control units of the BMW cars as well as related tools and frameworks.

Ph.D. Position: Combined Automatic Labeling of Sensor Data & Map Data (m/f/x)

Safety is a crucial aspect for any component or approach in autonomous driving which is actively steering the autonomous driving vehicle (failure rate of 10^{-9}). To assure the safety of these vehicles, each component, resp. algorithm, and the complete system has to be (re)validated, so that automatic Key Performance Indicators (KPI) can be obtained. However, to validate any algorithm labeled data is needed.

Within your Ph.D. thesis you will research novel approaches to detection, recognition and semantic classification for the automatic creation of labels in multisensory scene-data. Therefore, you will investigate the possibilities that are inherent to offline processing, such as distributed computing and avoiding of real-time requirements. Your research will require a combination of diverse techniques and approaches. You will design a system that draws upon the latest development in scene-analysis, consensus-analysis as well as discrepancy analysis. Designing user-interfaces that allow for manual inspection and adaptation of the created results will round-up your work.

Requirements:

- Deep knowledge in Signal-Processing and Sensor-Fusion. Solid knowledge in Machine Learning & Probabilistic Modelling
- Solid Software-Development skills, especially C++, Python
- Structured working approach and interest in reading & writing scientific publications
- Strong interest in Software-Engineering topics

Location: Ulm

Contact: students@bmw-carit.de

You can find out more about us as an employer, our entry programmes and other job opportunities at

<http://www.bmw-carit.de/opportunities/>

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