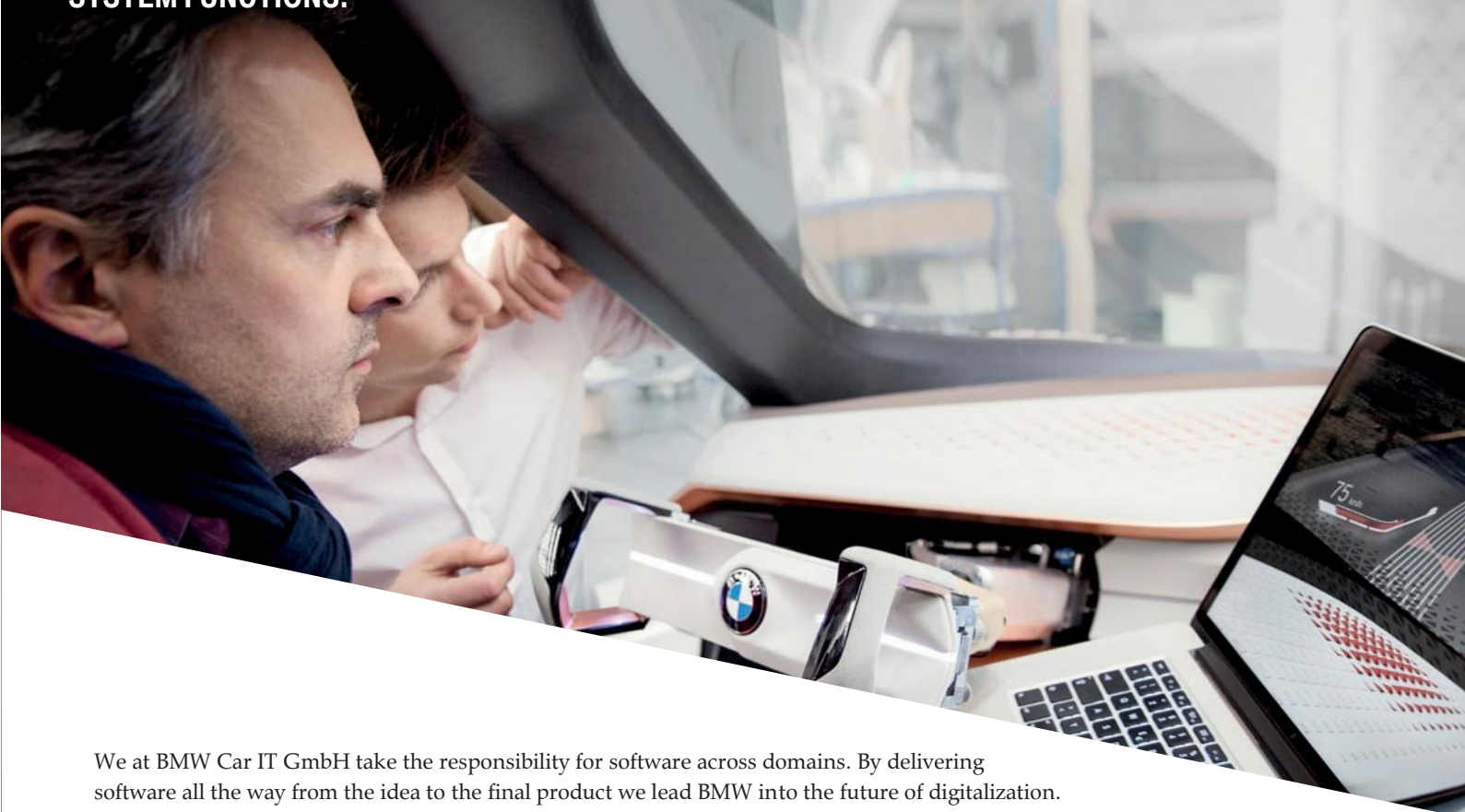


# NEW SOLUTIONS EMERGE WHEN THINKING ISN'T HARD-WIRED.

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We at BMW Car IT GmbH take the responsibility for software across domains. By delivering software all the way from the idea to the final product we lead BMW into the future of digitalization.

## Ph.D. Position: Distributed Environment Model (m/f)

In contemporary vehicles, a model of its environment allows the vehicle to interact with its surrounding. Currently, mostly the perceived data of the vehicle's own sensors are fed into that model. With more vehicles and other objects gaining sensor and compute power, a Distributed Environment Model becomes feasible. A Distributed Environment Model would allow its participants to integrate their own sensor data with the information others in their vicinity can provide. Sensor fusion is a challenge on its own. This thesis, however, aims at implementing a Distributed Environment Model for which sensor information must be fused with information provided by others. Within this thesis, such a Distributed Environment model will be implemented on conventional hardware bearing the embedded target in mind. Also, the capacity of cellular V2X based on 5G must be considered. Thus, a strong emphasis will be on efficient algorithms and clever data transmission.

The Ph.D. project will be hosted at Ulm University:

<https://www.uni-ulm.de/in/mrm/institut/stellenangebote/stellenangebotsdetail/article/doktorandin-im-bereich-automatisiertes-und-vernetztes-fahren-thema-kooperative-wahrnehmung/>.

## Requirements:

- University Master degree (very good) in Computer Science, Mathematics, Electrical Engineering or similar fields
- Strong software-development skills (especially C++, Python)
- Sound knowledge in one or more of the following domains: Signal processing and sensor fusion, machine learning, communication protocols and distributed computing / systems, localization and mapping

Location: Ulm | Reference-ID: DE\_122794

You can find out more about us as an employer, our entry programs and other job opportunities at <https://www.bmwgroup.com/de/karriere.html#location=DE,DE/Ulm>