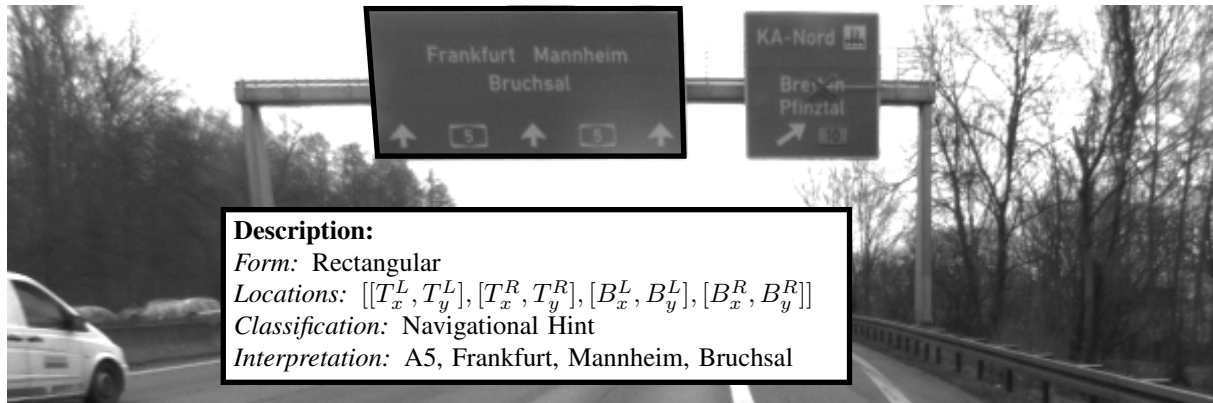


Traffic Sign Detection and Interpretation

Master Thesis / Bachelor Thesis / Research Assistant



Current driver assistant systems and future autonomously driving vehicles require a thorough understanding of the local environment of the ego-vehicle like the location and meaning of lane markings and traffic signs.

The focus of this work is the research and implementation of techniques to detect and interpret traffic signs. Input data is a sequence of monoscopic, gray-scale images recorded from a probe vehicle. The expected output is a description of detected traffic signs on a per-image basis. The description includes the geometric form (rectangular or circular), the pixel locations, a classification label (e.g. speed restriction or routing hint) and the interpretation of the traffic sign (e.g. speed limitation of 80 km/h or the city names on routing/navigational signs). The traffic sign interpretation is realized by block-matching (e.g. for speed limitations) and by using a text detection (OCR) software (e.g. for navigational signs).

Prerequisites:	Computer Vision, C++, Machine Learning
Covered Topics:	Feature Extraction, Contours Detection, Homography, Tesseract, Block Matching
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