

KI Data Tooling: Deep Learning for Corner Case Detection

Student Job

30-40hrs per month possible

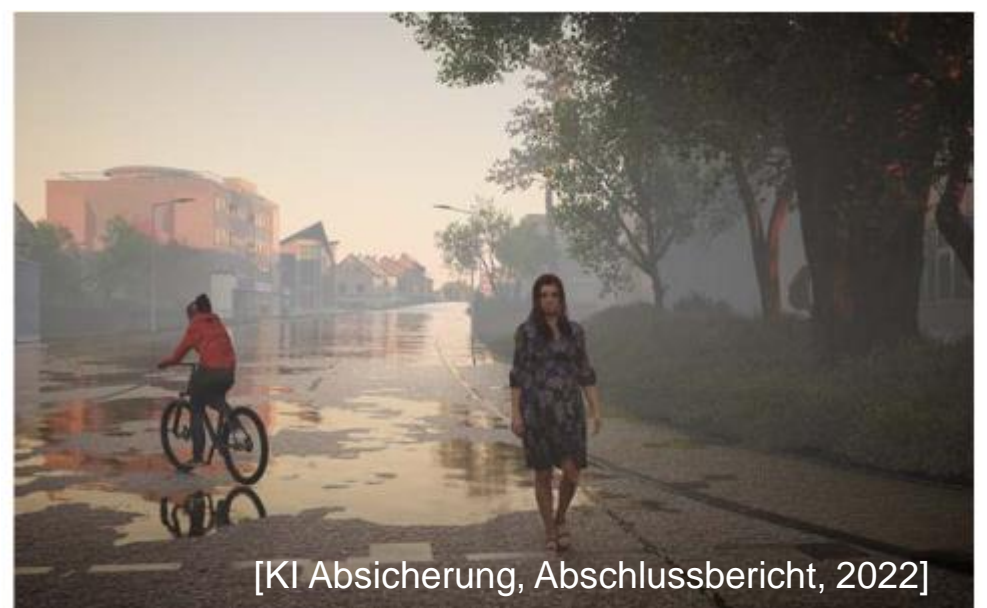
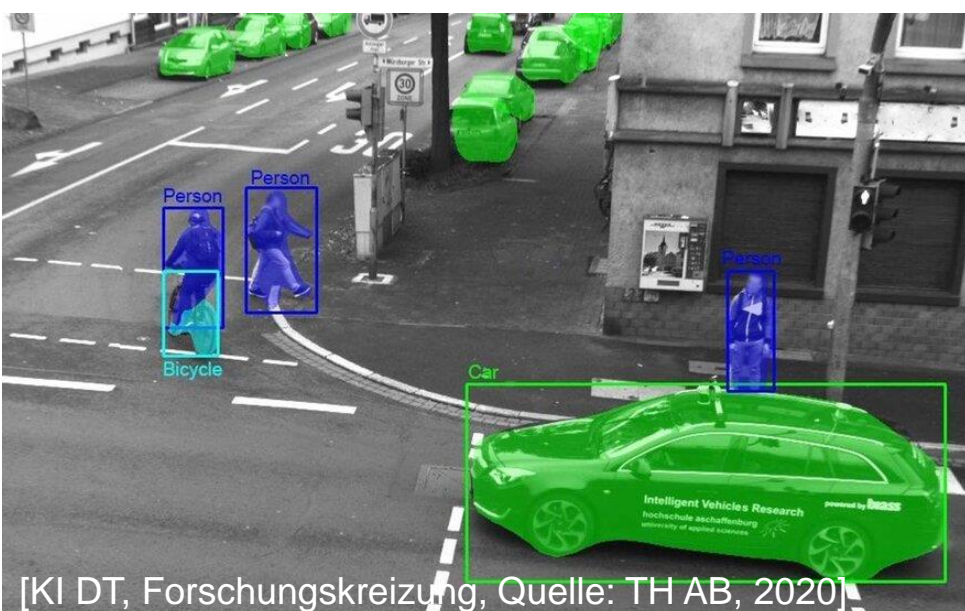
Automated Driving

Deep Learning

Camera Data

Sematic Segmentation

The KI Data Tooling project aims to develop advanced tools for managing and processing data in artificial intelligence. By streamlining data collection, labeling, and preprocessing, these tools will accelerate AI development and empower researchers to unlock the full potential of AI. Within this project, we work on corner case detection, i.e., detecting unexpected, possible dangerous situations to filter automated driving data. Such filtered data can be used in the data pipeline as more informed training data for perception methods.



What is the job about?

- Working with the data recorded in the project
- Building a data loading pipeline
- Running experiments with existing corner case detection methods on the project data
- Reporting results of pre-defined experiments on the project data

Your skills

- Very good programming skills in Python
- First knowledge in the field of Machine Learning is desirable
- Ideally you have already small experiences with PyTorch
- **Very enthusiastic about the research fields** of computer vision and automated driving
- Read and understand scientific texts in English
- Motivation for the topic and an independent structured way of working

How to get in touch?

Just send me an e-mail (j.breitenstein@tu-bs.de, info via QR code) with your field of study, your grades, and why you are interested in this topic. 😊

Our offer to you

- Insights into our current research and practical experience in machine learning
- Working in a well-known project with major players of the German automotive industry
- **A personal, careful and intensive supervision** (at least one meeting per week)
- Invitations to the presentations of other students to get an insight into the different research topics of the department
- A workspace at our institute and the possibility to get in contact with other students. This way small problems can be solved quickly
- Access to our own GPU cluster
- We aim to publish the results of this thesis at a peer-reviewed conference

CONTACT ME

