AI-based Functions for Pedestrian Detection

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AI-based Functions for Pedestrian Detection
Mission & Vision

Development Environment AP 1.1
- Facilitate collaboration on code-level among TPs and project partners.
- Provide and maintain development tools.
- Make licenses in third-party code transparent.

Algorithm Development AP 1.3 - 1.5
- Provide state-of-art algorithms for pedestrian detection.
- Train and test algorithms on synthetic data generated in the project.
- Evaluate algorithms using performance- and safety-related metrics.

Requirements Specification AP 1.2
- Specify boundary conditions for the operation of AI-based pedestrian detection.
- Specify performance metrics and target values.
- Specify requirements on training and test data.
TP1 provides state-of-art deep neural networks for pedestrian detection.
AI-based Functions for Pedestrian Detection
Requirements Specification

TP1 specifies expectations on its inputs and targets for its outputs.

Annotation format specification

```
"1380": {
    "c_x": 1460,
    "c_y": 560,
    "w": 24,
    "h": 54,
    "occlusion": 0.2,
    "v_x": 0,
    "v_y": 0,
    "truncated": false
},
"1381": ...
```
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Intermediate Key Learnings

Getting research and safe product development objectives under one roof can be challenging.

Anticipating expected performance of an algorithm that is under development is almost impossible.

Specifying how to generate synthetic data with a realistic degree of variation is non-intuitive.
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