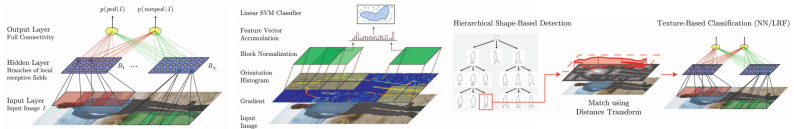


Monocular Pedestrian Detection: Survey and Experiments

M. Enzweiler and D. M. Gavrila (PAMI 2009)



- ▶ Overview of the current state of the art in person detection from both methodological and experimental perspectives
- ▶ Survey: main components of a pedestrian detection system and the underlying model: hypothesis generation (ROI selection), classification (model matching), and tracking
- ▶ Experimental study: comparing state-of-the-art systems
- ▶ Experiments on a dataset captured onboard a vehicle driving through urban environment
- ▶ Results:
 - ▶ HOG/linSVM at higher image resolutions and lower processing speeds
 - ▶ Wavelet-based AdaBoost cascade approach at lower image resolutions and (near) real-time processing speeds
- ▶ Better performance for all by incorporating temporal integration and/or restrictions of the search space based on scene knowledge