Project title: Visual Saliency for Pedestrian Detection

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Project summary:

Our research involves two issues; one is general saliency detection and the other is pedestrian detection using the former approach. Saliency detection uses a frequency domain framework to locate both fixation points and salient regions in images and videos. We have proposed a new framework for saliency detection that analyzes the spectrum scale space and then selects the optimal scale. The method is able to detect salient regions of different size by inhibiting patterns repeated across the whole image. Our intention is to use saliency to highlight potential regions containing pedestrians, followed by a learning-based approach to label the region as pedestrian or nonpedestrian. The objective of this research is to create a pedestrian detection model for automobile applications.

Publications:


2) J.Li, M. D. Levine, "Image and Video Region Saliency Based On Space and Motion," In Advances in Intelligent and Soft Computing, Springer, 2010. (Book Chapter)
