*COMPUTER VISION – Project 1*

*Autonomous Driving: Road Sign Recognition*

An autonomous driving systems require a huge number of different computer vision tools in order to recognize the street, the other cars, the obstacles and to deal with many challenging situations.

Among the various things and autonomous driving system should be able to detect the road signs and to understand their content. Develop a simple computer vision application that is able to detect road signs and to understand their content.

The application should be able to detect the “no parking”, “speed limit” and “warning” signs.

For the “speed limit” class it must also output the maximum allowed speed (you can limit the approach to a set of pre-defined values like the ones in the template image). The “warning” class includes all the various triangular warning signs but you are not required to distinguish between the various signs of this family.

In order to test the approach you can use the provided images, other road images you can easily find on the web or get some pictures while driving around (when you are a passenger and not the driver !!!).

Examples of techniques that could be used are the Hough Transform, template matching, Viola and Jones, deep learning, but any novel idea is very welcome !

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