



Applications of Computer Vision to Vehicles: an extreme test

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Abstract

Vision plays an important role while driving since most of the information is captured by the driver by just looking at the outside environment. Computer vision systems have also been widely installed on vehicles to support automatic functions.

So far, autonomous vehicles have been demonstrated able to reach the end of a 220 miles off-road trail (in the DARPA Grand Challenge), and negotiate traffic and obey traffic rules (in the DARPA Urban Challenge), but no one ever tested their capabilities on a long, intercontinental trip and stressed their systems for 3 months in a row on extreme conditions.

In this presentation I will focus on the most important techniques used onboard of vehicles to sense the surrounding environment and will describe a unique experiment that will take place in Summer 2010.

Syllabus: Computer Vision for Autonomous Vehicles