

L01 Exploring Real-World Applications of Computer Vision

While there are many computer vision applications to choose from I am choosing the autonomous vehicle. Specifically the Tesla vehicles. I have chosen this vehicle because I have this vehicle and have experience with the current pros and cons of the vehicle. Teslas are considered autonomous because they can “self-government” or in other words they are self-contained and can control themselves without outside control.

Computer vision technology works hand in hand with the AI technology in the Tesla vehicles. Of all the amazing things autonomous vehicles have to offer, I am genuinely impressed with the cameras and sensors. The sensors let the drivers know how close they are to an object in inches and the cameras allow them to see in blind spots that they couldn't see below their window. The cameras and sensors allow the vehicle to “see” its surroundings and warn the driver or automatically move to prevent a collision.

Tesla vehicles incorporate a wide range of advanced technologies like the electric powertrain, autopilot, OTA updates, regenerative braking, electric motors, and so much more. But I want to personally focus on the cameras and sensors.

I have personally used this application when driving in thick rainfalls and could not see the road from the windshield. I viewed the cameras on the vehicle and used them to get safely to my destination.

When trying out the beta autodrive using the cameras and sensors I have noticed that the computer is indecisive on which lanes to merge to. It jerks between both lanes and then abruptly deactivates. If the driver is not paying attention to the road then it could be dangerous.

In conclusion, yes the cameras and sensors are amazing and have helped millions of drivers but I for one will not trust the autonomous vehicle to take FULL control of the vehicle. The full-control self-driving mode is still in Beta mode with Tesla. The vehicle solely relies on sensors and cameras to determine its routes and to take full control from the driver. The cameras and sensors help the drivers be better, safer drivers. It “sees” what the driver misses or can't see and can respond to the situation on behalf of the driver. On the unfortunate side of this, it also allows the possibility of the drivers to be more distracted with other things like their phones and pay less attention to the road.