

## **TRAILER DETECTION FOR AUTONOMOUS VEHICLES**

### **ABSTRACT**

Systems, methods, and non-transitory computer program product are described herein for detecting location aspects of an autonomous vehicle to avoid collisions. Data including a plurality of points characterizing a trailer of an autonomous vehicle are received from a first scanning device. A first plane associated with the trailer is defined based on the plurality of points exceeding a first predetermined threshold. It is determined whether the first plane is perpendicular to ground. Based on the first plane being perpendicular to the ground, an orientation of the trailer is determined based on the first plane. Maneuvering of the autonomous vehicle is controlled through one or more commands based on the orientation.

[Figure 1]