

Building a driver behavior monitoring model using the YOLO model

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Abstract: In the context of increasing attention to traffic safety, this topic aims to address the issue of protecting drivers and pedestrians by building a driver behavior monitoring system based on the YOLO model. The goal is to develop a system capable of recognizing dangerous driver behaviors such as swerving, distraction, or driving while fatigued. By integrating machine learning algorithms and image processing techniques, this topic not only provides users with timely information about driving conditions but also contributes to the development of traffic safety technology. The research method includes collecting image data from dashcams, followed by training and optimizing the YOLO model to achieve high accuracy in recognizing dangerous driving behaviors.

Keywords: Driver behavior monitoring, YOLO model, traffic safety