SEMANTIC SEGMENTATION USING DEEP LEARNING

A PROJECT REPORT

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ABSTRACT

Predicting a few years ago, semantic segmentation was regarded as a difficult computer vision task. Because of recent advances in deep learning, relatively accurate solutions for its usage in automated driving are now conceivable. The majority of existing semantic segmentation algorithms are built for generic pictures and do not take into account prior structure or end objectives for automatic driving. In this study, we describe an effective technique for semantic segmentation for self-driving cars. The development of an accurate and real-time semantic segmentation system for self-driving automobiles is urgently required. The initiative is based on self-driving automobiles, or autonomous driving. Such an application is required in autonomous driving, where self-driving vehicles must comprehend their surroundings, such as other automobiles, pedestrians, road lanes, traffic signs, or traffic lights. We also know that the immense success of deep learning has had a significant influence on semantic segmentation approaches, enhancing their accuracy. A self-driving car must react rapidly to new occurrences in order to ensure the safety of passengers and other road users, however it is generally acceptable if object borders are not identified accurately down to a pixel resolution.