

Facts & opinions on Visual Object Detection

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Group:
SE-34

Project Part
III



Outline

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Facts

01

Object recognition is an active research area in computer vision with numerous applications including navigation, surveillance, automation, biometrics, surgery and education. (Guo et al., 2013, pp. 1)

02

The domain of automated facial-recognition technology was founded by Woody Bledsoe, Helen Chan Wolf and Charles Bisson. In 1964–1965, they worked together to recognise human faces using a computer. (Kaur et al., 2020, pp. 2)

03

in a recent update in 2018, NIST suggested that the accuracy of facial-recognition software is increasing greatly, with the accuracy of software to detect the photograph of a person with a different photograph of the same person in the database showing a reduced error rate of 0.2%. (Kaur et al., 2020, pp. 2)

Opinions

01

- The original text: "The aim of object recognition is to correctly identify the objects that are present in a scene and recover their poses" (Guo et al., 2013, pp. 1)
- The paraphrased version: Object detection aims to correctly identify objects present in the scene and restore their poses. (Guo et al., 2013, pp. 1)

02

- The original text: "From the development trend of the object detection in recent years. First, the accuracy of detection is continuously improved to satisfy the application of various complex scenarios. Second, the speed of detection is improved to satisfy real-time system applications while ensuring the accuracy." (Xiao et al., 2020, pp. 1)
- The paraphrased version: Judging by the improvements in object detection in recent years. First, detection accuracy continues to improve to accommodate the feasibility of a variety of complex scenarios. The second is to improve the detection speed and execute the machine package in real time while ensuring accuracy. (Xiao et al., 2020, pp. 1)

03

- The original text: "Detecting objects from poor quality frames leads to low accuracies. Video object detection approaches attempt to address the above challenges. Some approaches make use of the spatial-temporal information to improve accuracy, such as fusing features on different levels." (Xiao et al., 2020, pp. 1)
- The paraphrased version: Object detection from low quality frames leads to low accuracy. Approaches to the detection of video objects try to overcome the above problems. Some approaches use spatiotemporal information to improve accuracy, such as combining features at different levels. (Zhu et al., 2020, pp. 2)

References

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