

Review of: "Comparing YOLOv8 and Mask RCNN for object segmentation in complex orchard environments"

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Potential competing interests: No potential competing interests to declare.

The paper compares the performance of YOLO v8 and Mask R-CNN for instance segmentation on two newly collected databases. As a result, YOLO v8 proved its superior performance and efficiency.

To create ground truth information for the instance segmentation task, the pictures of the datasets have been annotated manually, using the Labelbox software; all annotations have been formatted following the COCO specification.

Will the databases and annotations be publicly available? This will help the research community and improve the importance of the paper. Also, sharing the code is common practice.

The paper is well organized, and the English language is good.

Little corrections

Abstract: Avoid long sentences. Instead of "Instance segmentation, an important image processing operation for automation in agriculture, is used to precisely delineate individual objects of interest within images, which provides foundational information for various automated or robotic tasks such as selective harvesting and precision pruning." It could be better: "Instance segmentation is an important image processing operation for automation in agriculture; it is used to precisely delineate individual objects of interest within images; it provides foundational information for various automated or robotic tasks such as selective harvesting and precision pruning."

Just before Table 1: Mask-RCNN is misspelled. Also in par. 2.1: Mask-RCNN.

Picture 1 is nice, but the letters (a) and (b) could be formatted properly.

Par. 3.4: Normally, equations are numbered on the right of the page with consecutive numbers, e.g. (1), ... (5). Also, in equation 4, the index "i" must be inside the parenthesis, and formatted as subscript.