



PROJECT REPORT

FRESHNESS DETECTION OF FOOD INGREDIENTS USING YOLOV5

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ABSTRACT

Maintaining the quality and freshness of food ingredients is vital, especially during storage. The freshness of food ingredients directly affects the health of those who consume them. Therefore, detecting the freshness of food ingredients is important to help prevent health risk. Unfortunately, traditional or manual methods for food freshness detection still lack speed and accuracy because they rely on someone's subjective judgment and often lead to human error. Using YOLO for food freshness detection helps make the detection process faster and reduces the risk of human error. The model used in this project is YOLOv5, which is known as fast and lightweight versions of YOLO but still delivering a good performance in recognizing the food ingredient freshness levels. The dataset consists of food ingredient images such as plant-based products (fruits and vegetables) and non-plant-based products.

Keyword: food_freshness, YOLO, YOLOv5, freshness_detection

