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Paper Title:	Enhanced Detection of Colorectal Polyps in Endoscopy: A Comparative Analysis Using YOLOv8 and YOLOv9 Models
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Abstract

Polyps are abnormal tissue growths that occur in various organs, with notable prevalence in the gastrointestinal tract. The main concern is the development of polyps in the colon and rectum because they are important precursors for colorectal cancer (CRC). Statistics show that CRC is the third most common diagnosed cancer in the United States and the second leading cause of cancer deaths. The best prevention method is to regularly get a colorectal cancer screening through a procedure called a colonoscopy to find and remove polyps early on. The utilization of artificial intelligence to automatically detect polyps have become common and can significantly reduce the misdiagnosis of CRC. Hence, we propose to use the industry leading object detection model, YOLO. This paper investigates the potential of YOLOv9, the latest iteration of the YOLO model, for automatic polyps detection. We perform a comparative analysis of YOLOv8 and YOLOv9 for polyps detection, evaluating their performance on a combined dataset comprised of images and labels from Kvasir-SEG and SUN Colonoscopy Video Database.