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A Novel Method on Wound Identification using Machine Learning and Image Processing

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Abstract: Automated wound detection using advanced computer vision techniques has emerged as a promising avenue within the realm of healthcare. This approach offers a streamlined and accurate means of identifying a variety of acute injuries, including bruises, abrasions, and traumatic wounds. Wound identification and assessment are crucial tasks in medical practice, facilitating appropriate treatment planning and monitoring of patient recovery. Traditional methods of wound assessment often rely on visual inspection by healthcare professionals, which can be subjective and time-consuming. In recent years, advances in machine learning (ML) and image processing have offered promising avenues for automating wound identification and analysis. This paper presents a comprehensive review of existing techniques and proposes a novel approach that leverages ML algorithms and image processing methods for accurate wound identification. We discuss various challenges, such as data variability, and provide insights into future research directions to enhance the efficacy and applicability of automated wound identification systems. In this study, we delve into the application of YOLO v8, a cutting-edge real-time object detection framework, for automated wound detection across diverse clinical scenarios

Keywords: Automated Injury Identification; Object Detection Advancements; Transfer Learning Strategies; YOLO V8 Framework.



