



Real time yoga posture detection and correction using yolo v8

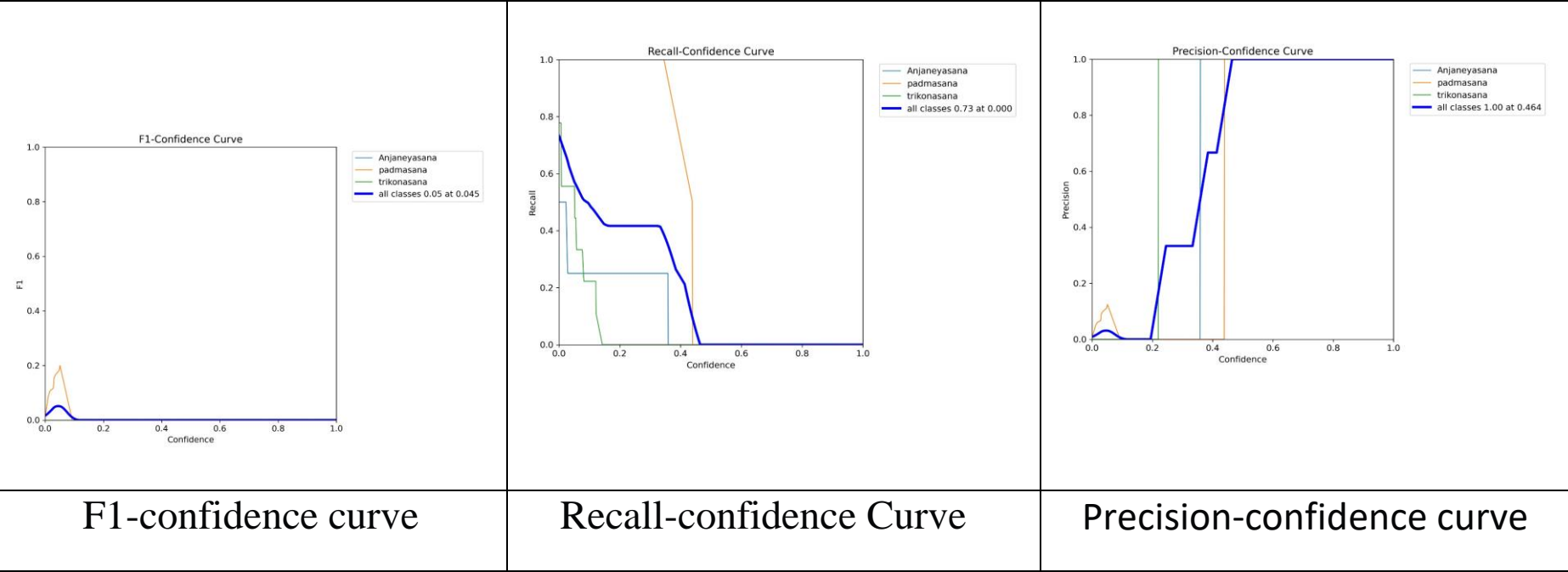


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Abstract: This paper presents a novel approach to detect and correct yoga postures using keypoints and YOLO v8 technology. By leveraging computer vision and deep learning, our system provides real-time feedback to practitioners, assisting them in achieving correct poses and preventing potential injuries. The system analyzes key body points, compares them to ideal postures, and delivers corrective guidance, enhancing the effectiveness and safety of yoga practice.

Introduction: Yoga is a popular form of exercise known for its numerous health benefits, but achieving correct postures can be challenging, especially for beginners. Incorrect postures not only diminish the benefits but also increase the risk of injury. Traditional methods of learning yoga often rely on instructor feedback, which may not always be available or affordable. To address this challenge, we propose a system that uses YOLO v8 technology to detect key body points during yoga practice and provides real-time feedback to correct postures. This system aims to improve the overall yoga experience, making it more accessible and safer for practitioners of all levels.

Curves:



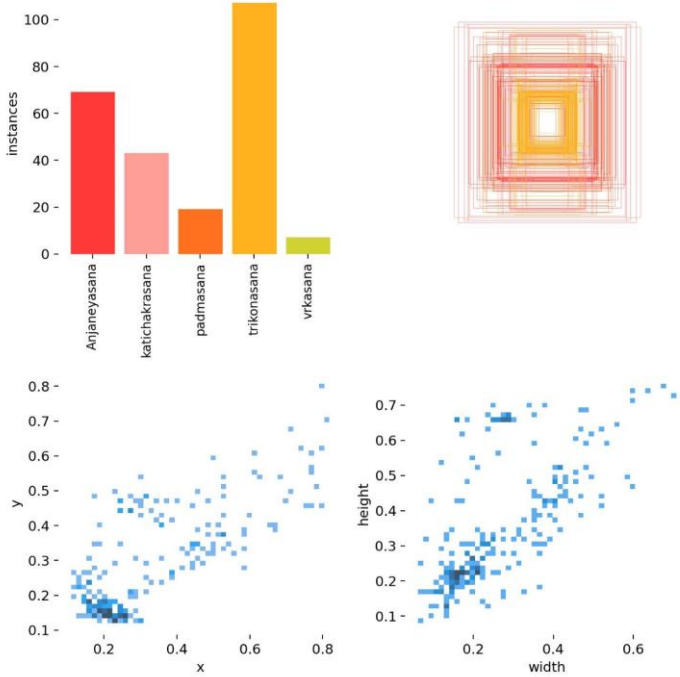
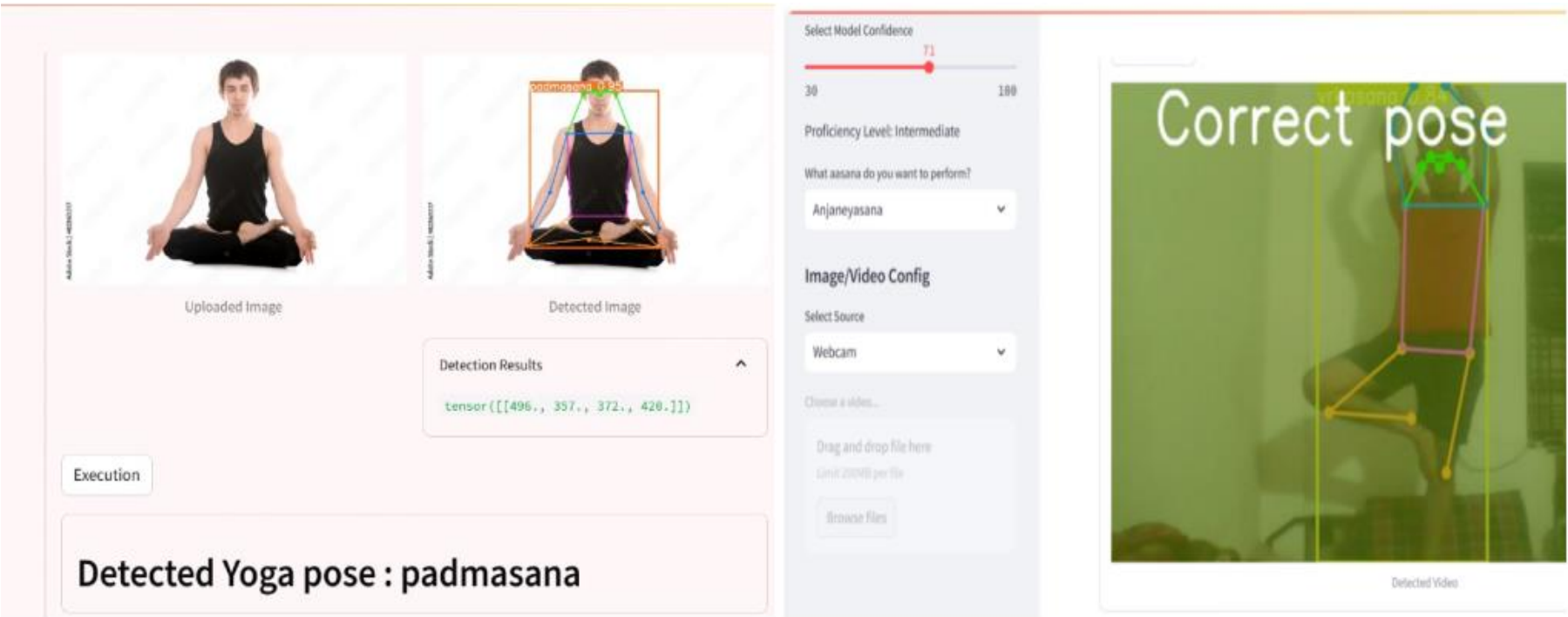
Conclusion and Future scope:

Conclusion: real-time yoga posture detection and correction systems represent a significant advancement in enhancing yoga practice. Through the integration of computer vision and deep learning technologies, these systems offer immediate feedback to practitioners, assisting in proper alignment and minimizing the risk of injury.

Future scope:

- Advancements in Deep Learning:** Continued improvements in deep learning algorithms will enhance the accuracy and personalization of feedback provided by real-time yoga posture detection systems.
- Widespread Accessibility:** The increased adoption of mobile applications and wearable devices will make real-time posture detection and correction tools more accessible, allowing individuals to practice yoga anywhere, anytime, with guidance and support from virtual instructors or automated systems.

Results:



	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3		3		3									
CO2								3	3	3				
CO3		3	3	3	3	3								
CO4					3		3				3	3	3	3

Signature of Guide