

REAL TIME CRICKET SHOTS RE-CORRECTION SYSTEM USING POSE ESTIMATION

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A dissertation submitted in partial fulfilment of the requirements for
Bachelor of Engineering (Honours) degree in Software Engineering

School of Computing

**Informatics Institute of Technology, Sri Lanka
in collaboration with
University of Westminster, UK**

2023

ABSTRACT

Cricket is a globally celebrated sport with a massive following, and every cricket player aspires to perfect their shots. The importance of maintaining proper posture while practicing cricket batting cannot be overstated, as it directly impacts a player's performance and technique. However, practicing cricket shots without the guidance of a coach or a practice partner presents challenges that demand significant self-discipline and motivation. One of the primary hurdles in solo practice is the lack of immediate feedback, which can lead to the development of bad habits and incorrect techniques that are difficult to correct later.

In a groundbreaking research project, the author employed pose estimation algorithms, OpenCV, and Mediapipe to accurately track real-time key points on a player's body during the execution of a cricket shot. By analyzing these key points during the critical phases of shot execution, the system can identify incorrect body positions and angles, providing instant feedback to the player on how to adjust their posture for optimal performance. This innovative system holds great potential as a training tool for both amateur and professional cricket players, enabling them to enhance their skills and achieve better results on the field.

To ensure the project's effectiveness and usability, a comprehensive evaluation was conducted involving various stakeholders. Domain experts contributed technical insights, software engineers offered advice on development, and end-users provided valuable feedback on usability and functionality. This multi-faceted input has been instrumental in shaping the project, making it not only technically sound but also user-friendly and adaptable for future improvements.

Keywords: Pose-estimation, Cricket, Machine Learning, Batting, Practice, Pose Correction, Key Points, Live Capturing