ABSTRACT

Face gaze direction plays a crucial role in online exam proctoring systems to identify potential cheating. This study proposes a gaze detection method based on MediaPipe Face Mesh and Iris Tracking, with performance evaluation based on various thresholds of minimum detection confidence and minimum tracking confidence. Experiments were conducted using four threshold values (0.1, 0.3, 0.7, 1.0) to analyze their impact on system accuracy. The results show that threshold 0.7 provide the best accuracy, averaging 99.1665%, while a threshold of 1.0 causes a drastic accuracy drop to 10.835% due to a high False Positive (FP) rate. Selecting an optimal threshold is essential to balancing gaze deviation detection and avoiding misclassification. These findings serve as a foundation for developing more reliable and accurate proctoring systems.

Keywords: Gaze Detection, MediaPipe, Proctoring, Face Mesh, Iris Tracking, Performance Evaluation