

AI-driven behavioural analysis of students

Abstract

Early identification of students at risk of poor academic performance, disengagement, or behavioural issues remains a critical challenge for educational institutions. This project proposes an AI-driven student performance and behavioural monitoring system that integrates machine learning, psychology, and education research to provide actionable insights into student development and classroom dynamics. The system analyzes diverse student data—including attendance, grades, participation in extracurricular activities, digital learning interactions, teacher evaluations, and health-related information—to identify patterns in engagement, learning styles, and behaviour. Leveraging predictive analytics, machine learning, NLP for textual feedback, and behavioural data analysis, it predicts at-risk students and supports personalized interventions, optimized classroom allocation, and improved academic outcomes. By enabling timely, data-driven decisions, this AI solution aims to enhance student engagement, promote well-being, and foster a safer, more supportive campus environment.