

Many researchers have addressed the use of search algorithms in artificial intelligence, and studies have focused on improving the efficiency of artificial intelligence in analyzing in game analytics. This will contribute to improving the design of more intelligent and interactive artificial intelligence systems within games. Wang et al. (2021) noted that incorporating algorithms such as A* and Minimax contributed to improving AI's ability to analyze complex environments and predict player behavior. Hence, the idea of this research was to fill this gap by analyzing and evaluating how search algorithms are applied to several game models, and comparing their effectiveness in terms of speed, accuracy, and adaptability to changing environments. "The name "minimax" comes from minimizing the loss involved when the opponent selects the strategy that gives maximum loss and is useful in analyzing the first player's decisions both when the players move sequentially and when the players move simultaneously". Recent studies show growing interest in using search algorithms to improve AI performance in digital games, particularly games that rely on multiple decision-making, such as chess and role-playing games.