

Proposal for Capstone Project: Bridge Assistant

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Our project aims to provide assistance to individuals during their bridge gameplay.

Our project encompasses three key initiatives, each addressing different stages of a bridge game: before, during, and after gameplay. Firstly, we aim to develop a customizable dealing program capable of assigning hands based on specific criteria, including minimum point requirements or distribution constraints, to prepare players for the game. Secondly, we intend to analyze the probability distributions of suits during gameplay, considering both card counts and high card point distributions, as well as their joint and conditional distributions, to aid strategic decision-making during play. Finally, we plan to calculate the butler of each pair of players in competitions, conducting quantitative analyses of tournament data to assess players' skill levels, incorporating metrics such as scoring rates and trick-taking efficiency, to evaluate performance post-game. These initiatives collectively aim to enhance players' skills and strategic understanding in the game of bridge.