

Bang! is a western-themed card game, where players aim to uncover hidden roles of opponents. Our goal was to implement a game environment enabling online multiplayer and to research and develop artificial intelligence (AI) for this game. We developed the game using the Unity game engine with a focus on extensibility. Then, we used neuroevolution and machine learning models to score game actions in a given game state. We collected the training data for the models from random games to ensure data diversity. Among the tested models, ensemble methods achieved the highest  $R^2$  and the lowest MSE. Furthermore, we used the neuroevolutionary algorithm NEAT to train universal and specialized neural networks. Universal networks were for use with all roles, while specialized networks focused on individual roles. The performance of AIs was assessed against random players. Specialized NEAT-trained networks demonstrated the best results, and so we tried playing against them. Despite having difficulties with estimating roles and some simple game situations, they showed an understanding of the game's main concepts and were capable of playing both in teams and individually.