

An Application of Artificial General Intelligence in Board Games

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This research aims to study the AlphaGo project series, a group of artificial intelligences for playing the game 'Go', and develop and train an artificial intelligence through unsupervised learning to play the game Go as well. Go is a 2-player board game where players take turns placing black and white pieces on a 19X19-tiled board in an adjacent tile to a similarly colored piece. Various statistics will be collected to determine its capability in comparison to the go-playing projects of AlphaGo and AlphaGo Zero (AGZ) and presented in a chart form as visuals to accompany the research. Unlike the AlphaGo and AGZ projects, this research-developed artificial intelligence will attempt to play a much smaller board of size 5X5 due to the high level of complexity and the unavailability of the required computer power necessary to play at much higher board sizes. Although there are few graphical elements to this project, one element the user will have access to is the board state at each decision of the research-developed AI and its adversarial AI.