Negamax

Artificial Intelligence Algorithms

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1 Introduction

This paper aims to briefly and simply describe the negamax algorithm ¹, which is a variant of the minmax algorithm. Negamax provides a more simplified implementation of the min-max algorithm by using a single player perspective. With this simplification, the algorithm clarifies the principle that one player's gain is the other player's loss.

In the following sections is described the theoretical background of the algorithm and its relation with the min-max algorithm. Then, the implementation is described and some common optimizations are discussed. Finally, some applications in adversarial search are presented that make use of the negamax algorithm.

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¹The paper has been compiled using the following Wikipedia page: https://en.wikipedia.org/wiki/Negamax