MOD500 Decision Analysis with Artificial Intelligence Support

Enrico Riccardi¹

Department of Energy Resources, University of Stavanger (UiS). 1

Sep 29, 2024



© 2024, Enrico Riccardi. Released under CC Attribution 4.0 license

Minimax

Example on the board

Minimax (alpha beta)

Example on the board

Chess



Setting up a ML/Al algorithm

Propose a:

- unsupervised
- supervised
- refinrocement learning

Evaluation functions

Let's assign some points



10



-10



30



-30



30



-30



50



-50



90



-90



900



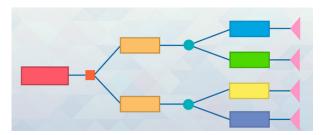
-900

Evaluation functions

Assigned probabilities

What happens if you don't know the rules?

- Clarity
- The more accurate the better
- Value of information



What happens when the splits in a tree are not deterministic, as in $\mbox{minimax}?$

How do you set up a decision oppositor?

Concept maps (Sept 2024)

https://www.mymap.ai/concept-map-maker

https://www.heuristi.ca/

https://chatgpt.com/ (Al Diagram Designer)