MSc Artificial Intelligence - Unibo

TABLUT CHALLENGE

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Our Strategy
Monte Carlo Tree Search

`mcts.py`

Based on four stages

- Selection: Based on a score given by Quality + Uncertainty
- Expansion: Expand the leaf node
- Simulation: Simulate the possibile moves from the current node
- Backpropagation: Propagate back the results

Our Strategy
Numpy Board

`rules/ashton.py`

- Board is mapped into a numpy array
  - Type of cells represented by decimals
  - Pawns represented by integers
  - An occupied cell is the sum tile + pawn

```
@property
def TILE_PIECE_MAP(self):
    return {
        "te": 0,
        "TW": 2,
        "TB": -2,
        "TK": 1,
        "ce": -0.5,
        "CB": -2.5,
        "Se": 0.7,
        "SK": 1.7
    }
```