**TODO**

1. **Fix AlphaBeta pruning -DONE**
2. **Add Number of 3 in a row heuristic**
   1. **Utility = Some Const \* (Number of 3 in row for X – Number of 3 in row for O)**
3. **Add Connectivity heuristic**
4. **Add Timer support by C++ threads**
5. **AI switched to performing iterative deepening starting at reasonable depth (12?)**
6. **Optimize valid move detection using bitmasking in Nodes**
   1. **E.g. 0000000 represents all columns have valid moves**
   2. **0011000 (24) has columns 2,3 full**
   3. **Check by doing for loop (var i) over cols (bitmask & (1<<i) == (1<<i))**
7. **General Win state/GameState/Node optimisations for faster speed and lower memory usage**
8. **Add transposition table**
   1. **Stores previous moves and result such that if encountered again in a search, values are reused**