

All Rules Gobang AI

CS181 proposal presentation

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Gomoku/Gobang

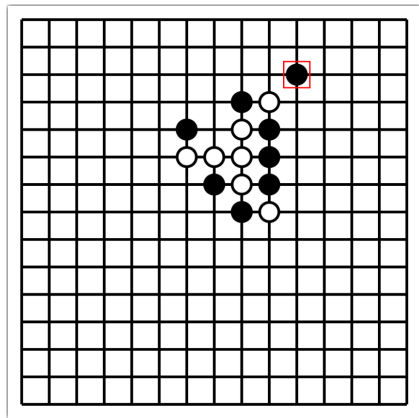
a 15×15 board.

an unbroken chain of five chess pieces horizontally, vertically, or diagonally would result in a win.

First Player Advantage

restricted move would make the opponent win.

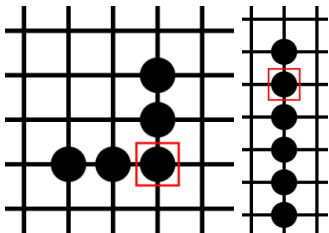
There are also several rules of **opening** and **swap**.



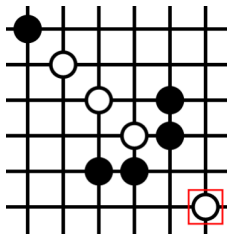
Topic

restricted move

Black chess can't be played in certain places



White player could force black player to do that.



- ① Gobang is very close to the course content
- ② Gobang requires less computility than other chess
- ③ This game is awesome
- ④ Although there are many Gobang AI, we could make our own balance one.

Main methods

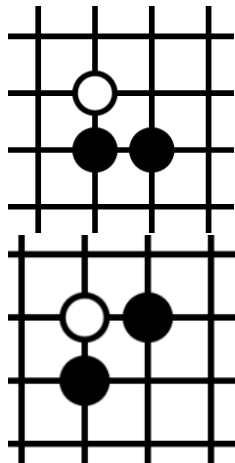
Adversarial search → Alpha-Beta pruning
heuristic search(experience)

Probably would not work

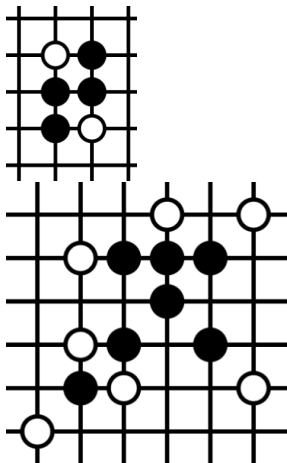
Supervised Machine Learning(Chess Manual)

Unsupervised Machine Learning(Self antagonism/genetic algorithm)

Opening



Special parts



Links

More links would make success easier.
Remain "Four"s.

Surround

Like Go, surrounding the opponent may bring advantages.

Thank You