

# TODO: WRITE A NICE TITLE!

Thiago V. de A. Silva  
2017719891

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## 1 Introduction

TODO: Talk a little bit about the classic tic-tac-toe, who invented, a little bit of history, that kind of stuff.

Then, talk a little bit about the ultimate version of the game, why it's interesting to study it, and stuff like that. Remember:  $3^81$ .

## 2 Game Rules

TODO: Talk about the rules of the game

## 3 Related Work

Talk a little bit about the related works.

That paper that the authors showed the equivalency classes of the board.

There is also the AI's available online.

And maybe more...

## 4 Payoff Table

Probably I'm going to define more than one payoff table.

Talk about the tables, why I chose the payoffs described in which one of them.

## 5 AI

### 5.1 Alpha-Beta Prunning v1

With the first function for the  $A^*$ .

### 5.2 Alpha-Beta Prunning v2

With the second function I defined for the  $A^*$ .

## 6 Experiments

Show the experiments comparing the results

## 7 Future Work

For now, there is just the monte carlo tree search.

Maybe create more payoff tables.

## 8 Conclusion