Chess game documentation: This project will show you the various steps and thought processes that were used in creating this game.

**PART 1: WHAT IS THIS PROJECT?**

This is a chess game built using python. There is both a 2 player and a single player version of this game. In the single player version of this game, there is an AI that is used for the opposing player. In this documentation I will first describe what was done, I will then describe how it was done.

**PART 2: WHAT FEATURES DOES THIS GAME PROVIDE?**

There are 3 different main phases in building this game:

1. The first was the construction of the base game:
   1. This involved using code to build the chessboard, pieces, dimensions, importing modules like pygame etc…
2. The second was dynamic resizing of the board. This was more involved than I already imagined.
3. The inclusion of artificial intelligence so that a second person was not required to play:
   1. This is the minimax algorithm
   2. Alpha beta pruning.

**PART 3: HOW WAS THIS ALL ACHIEVED?**

This will be the longest section by a considerable amount. Part 2 was about the visual aspects, and features of the game. This next part is about

* Chess tutorial on YouTube- though the finished product bears little resemblance to the original product due to the many significant changes over the development cycle.
* The technical “nitty gritty” walkthrough.

**PART 4: THE ROAD FORWARD?**

This will consist of quality-of-life improvements- which I will summarize in the points below:

* Improvements in the A.I.
* Inclusion of APIs for different AI modals.
* More dynamic board resizing elements- in particular horizontal changes.
* Color, texture and other similar changes and improvements
* Move counter, player score count- and using SQL to measure and AI and player patterns, win streaks, etc…
* Chess menu