**Project Title:** Chess AI

**Student:** Kuzey Cimen 1803189

**Supervisor:** Professor John Gan

**Abstract.**

This project aims to use a Neural Network to teach an AI player (Artificial Intelligence), from a database of super grandmaster (>2700 rating) games. The main goal is to train an AI player until it was strong enough to beat an average player in a chess game.

Evaluating the chess games that will be used to teach the AI using a different version of Minimax, Negamax. Minimax is an algorithm that checks every possible move and decides which one is the best using an evaluation function. Negamax is a more efficient approach to minimax. Evaluation is done by examining the move made from the current state to the next state.

An online platform is available to play against the Negamax AI player or the Trained AI player which uses a Neural Network. There is also an option to make the two AI players play against each other. In the future, the next step would be to implement user accounts, a leaderboard and a Player vs Player mode.

This report will cover the research that has been done, the background of the project, the design, the planning and implementation choices that were made and future work.