Project Topic Form

Group Name:

Artificial Masters

Project title:

ConnectAI

Project description – include 1-2 paragraphs stating the project description in your own words.

We want to build a Connect 4 game which uses several different types of AI to attempt to combat the player. It will use random choice, blocking tactics, DFS state search, and a Heuristic search

What software tools, programming languages, dataset, etc. are you going to use for your project?

We are going to use python to leverage pygame for constructing the UI and game board. We will develop using Visual Studio and/or PyCharm. Additionally, we will be using GitHub as a project repository so we can distribute code quickly.

Perceived technical strengths and weaknesses of each team member (i.e. how do you envision dividing up duties?) This should result from an open, collaborative discussion among the teammates. Note: this is about your technical skills and not about your habits or non-technical qualities such as "XX can work all night long!" or "XX has trouble staying motivated!"

Taylor Nastally:
I lack experience with Python, last time I used it was a few years back for a small pygame tetris program. Additionally, I have prior experience building UI apps and working on tree and graph data structures, changing these to state space structures should not be excessively difficult. I will be taking on the task of coding the game/UI, blocking AI, and as a stretch goal a heuristic AI. As project leader, I will assist group members with blockages and issues encountered with their projects.

Ashot Alajanyan:
I have never personally worked with python, but I have seen it in applications. I have worked with trees and linked lists in C++ using pointers, but never with any other language. My strongest language is C++ for functional programming, but I mostly specialize in UI. I can easily adapt my knowledge of data structures and algorithms to manipulate them into Python. AI is new territory for me, however I am a team player and will ensure that my peers feel supported and motivated.

Jakob Anderson: I am not all too familiar with python, but I have used it before and can understand the language at a basic level. I have some experience building UI for the front end as well as programming certain data structures and algorithms. I am very flexible and can learn and work with almost any programming task needed. I will help provide assistance to any of the necessary tasks such as blocking tactics or the DFS state search.

Manpreet Dhindsa:
I am comfortable programming with Python. I used Python a lot during undergrad, but I have not used it professionally. I will be fine after diving back in and getting used to the syntax. I am comfortable with data structures and algorithms. I will be taking on the task of the dfs state search AI implementation. Furthermore, I will assist the team wherever possible.