

# Artificial Intelligence

## Wumpus Puzzle Contest

**Goal** Write an agent to play Othello against another agent.

**Due** Sunday, November 29 at 7pm.

**Performance** You will be graded on:

- The performance of your agent against reference wumpus layouts
- How poorly the reference agents against your wumpus world layout

**Files** All of the files can be found in your repository on [git.cs.slu.edu](https://git.cs.slu.edu) and on the Canvas site.

**Your module** You will need to submit up two files (plus an optional third).

**NAME\_agent.py** where name is the your hopper username all lowercase. This file contains your agent to interact with the wumpus world environment. The class should be named NAME\_agent. You can see several examples in the repository.

**NAME\_layout.py** this is your layout to challenge other users. It should contain the class NAME\_agent. The random layouts give examples. But you probably want to handcraft it and not have it be random. It must:

- A path from the starting location to the goal without falling in a pit
- Has maximum size of 10
- The gold cannot be in a pit
- There can be at most 20 pits

**Running the program** Using Python run `Play.py`. You can enter the name of the agent you want to have play the game, the name of the layout and the timelimit per move. You can also enter **Human** to play against one of the agents. You also have the option to visualize using graphics, but everything you need will be displayed in text.

**Write-up** To meet the various learning outcome you need to provide a write-up describing the different versions of your program, how you tested them and what you did to improve your performance.

**Submitting** You should make sure your properly name solution and make sure it is submitted to the directory `contests/wumpus` in your class git repo. It will automatically be run by the software for the leader board for you to see how it performs against reference implementations and your classmates.

**Testing** Try your solver against different agents and see how it performs on <https://cs.slu.edu/~letscher/ai/contests/>