

Artificial Intelligence

Assignment 2: Pacman Uninformed Search

Deadline: October 22, 2023

General Remarks

- You are free to consult with other students. The assignment is, however, individual, meaning that each submitted assignment has to be sufficiently unique.
- Always motivate your answers. Detail the steps needed to come to your conclusions.
- You are free to provide answers in either English or Dutch.
- If anything is unclear or if you experience technical problems with the assignment, contact me at joey.depauw@uantwerpen.be.

Assignment (10 points)

For this assignment, you will implement uninformed search algorithms in the context of Pacman. The code and background information can be found at: https://inst.eecs.berkeley.edu/~cs188/fa23/projects/proj1/. Solutions should work with Python version 3.8.

Within the source material, follow the instructions under "Welcome to Pacman" to get started, then solve the following questions:

Question 1 (2 points): Finding a Fixed Food Dot using Depth First Search

Question 2 (2 points): Breadth First Search

Question 3 (2 points): Varying the Cost Function

Question 5 (4 points): Finding All the Corners

Tip: You should allow to visit the same position multiple times.

Upload a **zip** file containing **only** the files search.py and searchAgents.py via Blackboard. These files should contain your solution to all four questions. Do not change the names of these files. Good Luck!