EE4483: Artificial Intelligence and Data Mining
Individual project (II)

Due Date: 10:30AM, 17 October 2017

1. Develop a program that uses heuristic search to play the tic-tac-toe game (Fig. 4.1 in our slides). To interact with the program, a visual interface is preferred but not necessary, e.g., the input of the user and the response of the computer can be simply as (x,y), where x and y indicate the spatial location at the chess board. (**10 points**)
    a. Explain what heuristic measure you use for search.
    b. Explain your search strategy and the complexity of your search algorithm.
    c. Discuss the advantages and limitations of your search strategy
    d. Explain in what situation your program can win the game.

    Notes:
    - This CA contributes to 10 of 100 for the final marks. This is individual project so you need to work on the projects independently and plagiarism will be penalized.
    - Matlab is preferred to implement your algorithm, because it is easy for me to test your code. But any other program languages will also be acceptable, e.g. C, C++, Java.
    - Source code should be included in the report.
    - Email the source codes (<3M) of two algorithms to me (Email: junsong.yuan@gmail.com) by 11:59PM Oct. 17, 2017. Make sure the code can be compiled and executed. The title of the email should be: LASTNAME-FIRSTNAME-EE4483-project2
    - Submit your hard copy project report (upto 15 pages) to Dr. Lihui Chen/Dr. Junsong Yuan, at LT29 on 10:30AM on Oct. 17.
    - Late submission will have a penalty of 3 points (in total 10 points) per day!