ECE 479/579 Spring 2022

Homework #3: to be done in teams that you have formed.

Due: April 11, 2022

Please submit as follows:

- 1. Code via D2L by 11:59pm (hard deadline, late homeworks will receive 0 points).
- 2. One page write up (typed only) with <u>team members' names</u> and analysis of the efficiency of heuristics **AND 7 lines of code that you think are critically important in your program**. This write up is to be SUBMITTED IN CLASS (hard copy) on April 5th.

Please encode the A* algorithm in C, C++, or a language that we can compile and run to investigate the power of heuristics for the A* algorithm using the 8 puzzle problem. Use any two heuristics you may research or invent your own heuristics as long as they guarantee the solution optimality. In your write up, please explain how those two heuristics compare, and clearly state comparison criteria with respect to their efficiency of finding the optimal solutions.