CPS8326: Paper Reflection 2

Due February 12 at noon

CPS8326 has paper reflections, which are due immediately before the following class. Please submit the reflection on D2L as a PDF file. No late submissions will be accepted.

Paper reflections are intended to be approximately 1 page in length (and no more than 2). For all reflections, students should include the following:

- A brief description of the problem/issue/task being addressed by the paper
- A brief description of the main contributions of the paper
- A brief description of how those contributions are evaluated (including theoretical or empirical evaluations)
- Where applicable, additional observations about the significance of the result, any criticisms you have of the paper, ideas on how you could build on the paper, or other topics

Keep in mind that the goal of these reflections is to demonstrate you understand the method and can think critically/ analyze the work. Do not list everything in the paper or give a complete rundown on the results. You are intended to summarize the work and think more deeply about it.

This week's reflection is to be done on the following article:

"Anytime Heuristic Search" by Eric Hansen and Rong Zhou. You can skip sections 3 and 4, and your reflection should focus on the rest of the paper.

The paper can be found at the following link:

https://jair.org/index.php/jair/article/view/10489

In addition to the content above, please answer the following questions:

1. Suppose that you had a heuristic function, and you weren't sure if it was admissible. How could you use anytime heuristic search to use that heuristic for guidance, while still guaranteeing optimal solutions.
2. Why does AWA* sometimes take less runtime to find optimal solutions compared to A*, even though it makes more node expansions?