CS7637: Assignment 3 (Fall 2016)

Last Revised: 12/05/2016

Due: November 6th at 11:59PM UTC-12 ([Anywhere on Earth](#) time)

Assignment: Addressing Your Problems

First, choose a problem that you have faced in your life that you think could be addressed by AI. This could be a problem you face at work, a problem you face in another class you're taking, a problem you face in your everyday life, or a problem relevant to the AI community. You may feel free to choose one of the nine problems proposed in assignment 2, however, we would prefer if you use a different problem than the one you used for assignment 2.

Then, choose one (or more) of the following six topics. In a response of roughly 1000 words, answer the question: how would an AI agent use this topic or these topics to address the problem you chose above? You may also feel free to incorporate topics covered previously in the course as support but the focus of your paper should be one (or more) of the below.

- Understanding
- Commonsense Reasoning
- Scripts
- Explanation-Based Learning
- Analogical Reasoning
- Version Spaces

1000 words is neither a minimum nor a maximum, but rather a rough guideline to the amount of thought needed to adequately answer the question. You may feel free to write more, or write less if you feel you can answer the question in less text. If you do go over the guideline word length please take the time to make sure all the content of your submission is clearly connected to the problems/questions addressed. As other students will be reading your assignments for peer review, readability is important. You are also free and encouraged to augment your description with pictures, diagrams, drawings, sample problems, or any other visual aid to support and illustrate your answer.

Submission

The assignment should be submitted as a PDF. Most modern word processors allow you to save a document as a PDF. If yours does not, we recommend copying or uploading your assignment to Google Docs and downloading it as a PDF. There also exist other freely-available PDF converters online.

To submit the assignment, go to the assignment submission page, upload your document, and click submit. All submissions must be received by the due date and time. Late work will **not** be accepted, although we have built in a little lag time in T-Square to account for slow upload times. Please see the syllabus for more information on the course late policy.

Grading

Your assignment will be graded according to eight criteria. Each criteria will be evaluated on a scale of 0 to 5:

- How well does the assignment describe the problem it is attempting to solve in a way that classmates can easily understand?
- How well does the assignment identify what makes the problem difficult?
- How clearly and efficiently does the assignment articulate its design for a solution to the problem?
- How well does the assignment leverage the chosen KBAI topic(s) in designing that solution?
- How well does the assignment use the chosen KBAI topic(s) to address what makes the problem difficult?
- How well does the assignment expand on the description of the topic(s) that was presented in the lecture? In other words, how well does the assignment demonstrate understanding of the topic, not just repetition of its vocabulary?
- How well does the assignment supply enough depth (while efficiently utilizing space) to be able to actually implement a system based on this idea? For example by including algorithms or graphics specifically tailored to illustrate implementation.
- How well does the assignment actually solve the problem? Is the solution proposed by the assignment feasible?

Thus, assignments will be scored out of 40. It is important to note that a 90% should not be considered the threshold for an "A". Make sure to check the stats posts at the conclusion of each assignment to see the class distribution and understand your grade.

Peer Feedback

After each assignment, you'll be asked to give peer feedback to three other students in the class via [Peer Feedback](). You'll receive your peer review assignments the day after the assignment is due, and you'll have until the following Sunday to submit your peer feedback. Peer review is worth 15% of your grade, and your participation in peer review will be graded based both on completion of the activities and on the quality of your feedback, as judged by both the TAs and your peers.

You will receive three peer review assignments for every course assignment. Make sure to complete each peer review timely.

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If you borrow any ideas, text, diagrams, figures or images from any outside source, it is extremely important that you properly attribute credit for that work.
All sources must be cited using the APA format for citations.

1.   If you are quoting directly from another source, the passage that you are including in your paper must be surrounded by quotes and the author's name, year of publication, and page number must appear in parentheses immediately following the quote in the body of the paper.

   Example: "This is the text you are citing"(Author, 2016, p. 1).

2.   If you are paraphrasing from a source, the relevant passage must be followed by the author's name, year of publication, and page number in parentheses in the body of the paper.

   Example: This is a paragraph you are paraphrasing (Author, 2016, p. 1).

3.   If you are copying a diagram, figure or image, the author's name, year of publication, and page number must appear in parentheses immediately following the figure caption.

   Example:

   Figure 1. Blank Figure (Author 1, 2016, p. 1)

4.   In addition, any citation must be accompanied by the appropriate reference on the reference page at the end of your document. Please review the rules for proper APA references at one of these websites:

https://owl.english.purdue.edu/owl/resource/560/01/

http://www.umuc.edu/library/libhow/apa_examples.cfm#intext

http://www.citationmachine.net/apa/cite-a-book

Example of a Journal article:

Author, A. A., Author, B. B., & Author, C. C. (Year). Title of article. *Title of Periodical, volume number*(issue number), pages. http://dx.doi.org/xx.xxx/yyyyy

Example of a book:

Author, A. A. (Year of publication). *Title of work: Capital letter also for subtitle*. Location: Publisher.

Example of a website:

Author, A. A., & Author, B. B. (Date of publication). *Title of document*. Retrieved from http://Web address

We understand that all the relevant information may not always be available for every source (especially web resources). Please do your best.

We also understand that APA has a myriad of rules and we do not expect you to become an APA expert in this class. If you miss a coma somewhere, or do not skip a line where necessary, you will **NOT** be penalized. However, if you use a portion of someone else's work and do not include an in-text citation and a corresponding entry in the reference page, we will consider it plagiarism and refer your case to the Office of the Dean for disciplinary action.