This is a take-home exam. That means that you have as much time as you wish to do it, between the time it is released and when it is due. It is technically *open-book* and *open-computer*; the questions were formulated with this in mind. The following items will help you craft responses that will meet my expectations.

- Make sure to answer the questions with a proper essay. That includes using complete sentences, and a structure that has (1) a beginning (with an introduction that includes a thesis statement), (2) a middle (supporting the thesis), and (3) a conclusion. I also expect essays to be grammatically correct and free of spelling errors.

- The word counts are included to provide an approximation of the scope of answer that I anticipate for the question (+/- 10%). I expect answers to be deeply thought out and convincingly argued. In general, there is no penalty for exceeding the word count (nor directly for not meeting the word count, for that matter). The primary concern is the depth and dimension that you give in your argument.

- When asked to cite specifics, *cite specifics*.

- All of these play into the grade. Remember that your task is to convince your reader (*i.e.,* me) with your argument.

- The point value shown for each question includes 25% of the value dedicated to writing (structure, grammar, spelling, *etc.*).

- Cite and include reference information for any sources that you refer to in your essays, including both a reference list and in-text cross-reference citations. You must cite the textbook and other course materials if you use them as sources.

- Exam papers must be typeset in LATEX. You must submit a PDF document. Please DO NOT submit a file in a different file format or a link to a shared file in cloud storage. You may write your essays in the answer boxes in the source file I provided if you want to use my LATEX source as a starting place.

- This is a final exam. As such, I am looking for responses that pull together the material and ideas that we have discussed throughout the semester. Responses that simply "check the boxes" of the question will be scored as adequate, *i.e.,* the equivalent of around 75%. To achieve a higher score, your responses must demonstrate mastery of concepts, maturity of thought, and convincing arguments.

- Include your name in the document you upload **and** in the file name.

1. (75 points) We spent several weeks considering issues related to Artificial Intelligence (AI). With the recent emergence of Generative AI (Gen AI), discussions surrounding Artificial General AI (AGI, or sometimes GAI) have gained a sense of urgency. The idea of AGI, a level of intelligence that is "like" a human, brings many ethical questions to light. While it remains unclear whether AGI is even possible, for the sake of this question you will assume that AGI *is* possible and that computer scientists have the technology to create it.

   Your discussion will have two (2) parts:

   1. Choose two (2) ethical issues related to AGI that you find most concerning/difficult/important. Examine these issues in detail, using the ACM Code of Ethics and the course textbook to guide your ethical analysis. Include why you think these issues are the most concerning/difficult/important,

what happens if these issues are not addressed, and what steps the professional community can do the address the issues.

2. After discussing your chosen concerns, discuss whether or not you think that computer scientists should pursue the development of AGI. Include benefits *versus* risks, potential outcomes, and additional ethical issues that your stance touches on. You must present an **argument**, not simply state an opinion. That is, you must include support, evidence, and reasoning for your position.

Throughout your discussion, draw specific examples and support from the ACM Code of Ethics, the textbook, discussions, documentaries, and presentations (yours or those of other students). You may draw on additional sources as long as you cite them and list them in your references.

750 words.

> **Solution:**

2. (25 points) Throughout this course, you had a variety of experiences in *professional communication*, including several types of writing (resume, feedback to peers, formal paper) and oral communication (presentations, mock interviews, elevator pitches, participating in discussion). What aspect of your professional communication do you think you have improved on most this semester (choose just one thing)? On the other hand, what, in your opinion, is your single greatest remaining weakness in communication? How will you work to improve on that weakness in the future? How will the professional communication experiences in this class inform your communication in the future?

For all parts of the question, provide specific examples from your experiences in this class.

350 words.

> **Solution:**