ECE324

Assignment 1

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Part 3

Q: If the two files you compared above are the same, does it prove that your code is correct? Explain your answer.

A: No, since the values in the output are calculated using dot product, simply having the same sum does not mean that the correct values were used for the operation. For example, take dot product of the symmetric matrix and vector:
[[1 0 0],   [[1],
 [0 1 0],   [1],
 [0 0 1]]   [1]]
I can perform the operation by doing the dot product of any of the rows in the matrix in any order, and my final answer would still be [[1], [1], [1]]. However, the order of operation was incorrect and is not evident by looking at the final solution vector. Thus, purely looking at the final value is not a valid way to check if my code is correct.

Part 4

Q: What is the output in the terminal?

A: Output: [-1.5 -2.8 1.6 12.8]

Part 5.2 Qualitative Questions

1. How does the image img_add.png differ from the original image? What would happen if we had subtracted 0.25 from the original image instead of adding?

Adding 0.25 increased the brightness of the photo. Subtracting 0.25 would make the image darker.

2. Describe your programming experience in a few paragraphs. This can include the courses you have taken here at UofT, but if you have more experience, describe that as well.

For Python and C, the only experience I've had are in university courses, such CSC180, CSC190, and AER201. I have work experience in web development with the use of HTML, CSS, and JavaScript. However, most of that work was front-end/DOM manipulation and was not very algorithm focused.

3. Describe your experience with Assignment 1: how clear were the installation instructions and questions? How can we make it more helpful?

I already had PyCharm and Anaconda installed, but they were older versions. The easiest thing to do was to uninstall and reinstall the programs as I didn't know how to update the program with Python 3.7. Perhaps instructions for those who already have the systems installed could help.