

Review Summary 3

Instead of a midterm, we will have three “Review Summary” assignments that are meant to replace the reviewing, summarizing, and reflecting that studying for exams provides. The majority of your time will be spent reviewing and reflecting on the material covered in a given subset of the lectures.

Submission: You must upload a **pdf** of your review summary to Gradescope under “Review Summary 3”. This can include a scan of written/drawn work for the study guide, and if you include external media (such as video or audio recording) it must be linked from the pdf. You are responsible for **ensuring** that this external media is viewable by anyone (a good way to check is to verify you can access it from an incognito tab).

Due Date: This assignment is due at 11:59pm PST Saturday August 20th.

Collaboration: You are to work on this assignment yourself as it is a reflection of your own learning.

1 Study Guide (10 points)

Unit 3: Lecture 15 (Joint Distributions) - Lecture 21 (MAP).

Create a study guide covering the material from this unit. This guide should cover/include the most important concepts from this unit to you. Do not think of this as a “cheat sheet” where all that is listed are formulas and definitions like what you might see in the review portions of the section handout or our distribution cheat sheet. Instead, think about how you might use these rules or formulas in different problem settings. You may include any formulas from class in your study guide, but these should not make up

the majority of the guide. If you choose to include definitions, you should also translate the definitions and/or explanations into your own words.

This study guide should be formatted in a way that you would benefit from it the most, and we encourage you to be creative with it. Imagine it like if you were looking back a year after taking this class and wanted to review the topics. Any legible format is fine, including bullet points, diagrams, audio/video recordings, presentations, etc... Ultimately it just needs to be submittable in a pdf (whether embedded within in it or linked to externally). **Reminder that you are responsible for making your work accessible, and if we cannot access it we cannot grade it.** We expect about 1-3 hours of work to be put into this study guide.

2 Reflection (5 points)

In 1-2 short paragraphs, reflect on the material from this unit. This should not be more than half a page long. Some questions you can answer are:

- What was something that stood out to you in this unit? Why?
- How does the content from this unit relate to the real world? Relate to computer science?

Answers should not be in the form of “Now I know how to use random variables”. Instead, perhaps describe how random variables were an interesting topic for you or how we could use them in the real world. Feel free to include some specific examples here as well.