

CS120 Participation

Fall 2023

CS120 is a collective learning experience, where we all should be working together to support each others' progress. Thus, we will occasionally (after each sender-receiver exercise in which your role is “receiver”, that is, about four times in the course) ask you to share an example where your participation helped advance your classmates' or your own learning, or helped improve the class. These can be based on any form of participation: in class/section/office hours, in discussions on Ed, in our feedback surveys, in your collaborations on problem sets, etc. We also hope that thinking of such examples helps you develop a habit of critical reflection on the impacts of your participation, how you can participate most effectively in the future (in this class, or the next), etc.

Contents

Each of the submitted examples of meaningful participation should be described concisely (at most 75 words per question below per example) using the following 3-part format:

- 1. What?** Describe the participation/engagement you are reporting. Recall that we have a broad definition of participation, including our active learning exercises, answering or asking questions in class/section/OH/Ed, discussing the material with your classmates in study groups, offering constructive feedback on the course. Be as specific as possible, including concrete descriptions of what you said or did and when you did it. We welcome reporting on engagement that follows up on your previous participation examples, e.g. pursuing an approach from a previous “now what” or that was suggested in the feedback.
- 2. So what?** What was the impact that you believe the participation had, and what evidence do you have of that impact? For example, it could have improved your classmates' understanding of a difficult concept, filled in gaps in background knowledge, raised an interesting issue for discussion, increased the sense of community in the class, or led to improvements in the class implemented by the teaching staff. When appropriate, connect the impact to the learning outcomes of the course as listed in the syllabus. Evidence of impact could include a screenshot of follow-up discussion to your comment on Ed, or a classmate's quote where he or she explains in what meaningful/substantial ways you impacted his or her learning. If you think something you did helped one of your classmates' learning, ask that classmate to find out! It is OK if the answer is negative and it did not actually help—you will get full credit for reporting what you find, as long as you thoughtfully reflect on it in Item 3 below. If you are unable to obtain evidence either way, explain why, and in Item 3 discuss how you might do so in the future.

- 3. Now what?** Reflect on how your participation and what you have learned about it will affect what you, your classmates, or the course will do in the future. For example, what insights have you gained about your own and your classmates' learning processes? What forms of engagement are most effective for supporting learning and why? How might you change your approach to participation in future classes? What other ways can you obtain evidence to validate or otherwise test the impact of your participation?

Examples

We are sharing (with permission) some excellent examples from Fall 2021 and Fall 2022, along with our comments on strong features of these submissions. What we want you to take from these examples are illustrations of the kind of detail, evidence, and reflection we are looking for in the portfolios.

Example 1

What?

I enjoy going to Salil's Office Hour to ask algorithm questions or questions that relate back to my research at Harvard. We had really good discussions about how we can think about coming up with better algorithms, randomness, and pseudorandomness, and what does it mean to be random and how do we prove that the random is purely random.

So What?

Salil introduced me to the idea of Quantum Randomness, where researchers use quantum mechanics to come up with truly random numbers, which is really exciting. We also talked about how randomness relates back to privacy applications, and about how local sensitive hashing can be applied back to the research I am currently doing at Harvard. Seeing how algorithms apply to daily life and my research as well as connecting different domains of sciences increases my passion for algorithms.

Now What?

I have learned that never be afraid to ask questions and engage with professors outside of class. When I share how useful and interesting algorithms can be to my friends, they are in awe that an algorithm can have its beauty beyond its theoretical proofs. I look forward to participating in more office hours and learning beyond the textbook.

Notable features of this example:

- Concrete and specific
- Engagement driven by curiosity, connecting the course material to one's other interests

- Reflection on benefits of approaching faculty (there's nothing to fear!)

Example 2

What?

While preparing for the midterm, I did the vast majority of my studying with one of my friends in the class. The two of us walked through the lecture notes and associated section problems for each key concept, asking each other clarifying questions and quizzing each other on important material along the way. We found that talking through RAM and Word-RAM helped us understand the concepts in a way that reviewing them alone could not have done.

So what?

This experience definitely helped fill in gaps in both of our background knowledge. The process of parsing through proofs together was extremely helpful in increasing both of our understandings of the material. We also discovered that the two of us had slightly different strengths when it came to reviewing notes; I was better at explaining the more theoretical concepts, while she was better at applying these concepts to concrete problems we had discussed in class.

Now what?

In the past, I haven't been in the habit of studying for exams with other people—I've always believed that I could figure out everything I needed to know on my own. This experience completely corrected this misconception—the process of studying with someone else helped me to think about the course material in ways I wouldn't have otherwise. In the future, my friend and I have resolved to periodically review course material together so that we can continue bolstering each others' understanding of concepts.

Notable features of this example:

- Concrete and specific, provides tangible examples when applicable
- Illustrates engagement with course material that occurs on a smaller scale (participation in the context of partner or small-group work can be just as valuable as participation that affects the entire class!)
- Thoughtful reflection on how this example of participation will affect future study habits

Grading

As discussed in the syllabus, we will use the same N/L/R-/R/R+ scale for grading your participation highlights as we do for problem sets, but with the following interpretations:

- N: Your submission is too incomplete for us to assess your level of participation.
- L: Your submission demonstrates a minimal amount of participation in the course and effort on the assignment, but is below expectations.
- R-: You seem to be meeting most of the expectations for participation, but have not followed all of the guidelines for assignment (e.g. “What”/“So what”/“Now what” division).
- R: Your submission demonstrates that you are a fully engaged member of the course’s learning community and meets the specified guidelines.
- R+: Your submission goes beyond expectations, in the level of your positive contributions to the course’s learning community and/or the thoughtfulness of your reflections on your participation.