

Senior Projects
Fall 2023
Project Proposals

Every group must submit a written project proposal. While there is no absolute length requirement, I am expecting that most proposals will be approximately three or four pages in length. In terms of format, you should use 1 ½ lines for line spacing, a standard 12-point font, and one-inch margins. I am not requiring the use of LaTeX, but using LaTeX will make your end-of-semester report and end-of-year report much simpler, so you might want to learn it now. I strongly recommend using LaTeX for the large, technical writing assignments.

Write these proposals not just for me as the intended audience, but rather for a general audience with a reasonably strong technical background. (That is the audience you will be assuming for the end-of-semester report and end-of-year report as well.) These proposals may be forwarded to a Cooper Union Writing Fellow, assuming I can schedule a writing workshop, and/or to one of the Cooper Union librarians, assuming I can schedule a library workshop.

Your proposals should include at least the following:

- An introduction describing the basic idea. What are you going to create? What would be its purpose and potential applications? Why is this idea interesting? The introduction should make the motivation of the project clear.
- A short background section, demonstrating that you have done some preliminary research. Discuss topics that you will need to learn about in order to complete your project and previous research that is related to your idea. *Include citations when you discuss any material that you did not originate!* This includes references to other research and anything factual that you learned from other sources. (I do not expect that you have performed detailed research yet; the background section will be much more extensive in later reports.)
- A section describing your proposed work in more detail. If you plan to build something, what will the steps to building it be? If you plan to carry out experiments, describe them, including how you might evaluate your results. What challenges do you expect to face along the way?
- A bibliography including references for all sources that you have used so far. (Again, citations to these sources should appear in your background section, and anywhere else that information you have learned from these sources is discussed.) You should use the IEEE standard format for references and citations. Note that the bibliography and citations will be very important for writing assignments later in the semester. Here is a link to a document that gives examples of citation formats:
http://ieeauthorcenter.ieee.org/wp-content/uploads/IEEE_Style_Manual.pdf

Note that *I am not asking for a proposed schedule at this point*. You will be asked to come up with a proposed schedule for another assignment, which will be due a couple of weeks later.

Project proposals are due by 2:00 PM on Tuesday, October 3. Each group should e-mail their advisor(s) an electronic copy before the start of class. Again, the proposal may be forwarded to a Cooper Union Writing Fellow and/or to a Cooper Union librarian. *Make sure that the names of all group members are included in the report.*