

Final Project Proposal (Midterm)

COCS 4560/5560
Modern Robotics
Spring 2018

The midterm consists of writing a grant proposal for your project, including surveying previous work in the area (e.g. from readings and lectures) and describing why what you propose to do is interesting and new. You will also present your funding pitch to a review panel (the class) as a 5 minute presentation to try to get your project funded. If you are in a group for your project, each person must write an equal portion of the report and present an equal portion of the talk.

In the midterm, the goal is to tell your story: what you want to investigate and why that is important.

Here is a suggested outline for your proposal (and talk):

- Introduction, background, and motivation
 - A quick description of the overall goal of the field
 - A quick summary what you want to do and why it is important (e.g. why it helps further the goal of the field)
 - A summary of the previous related work
 - to demonstrate your knowledge of the readings and the context of the field, your proposal must include **at least 5 references**.
 - A description of how what you want to do is an interesting next thing to investigate
- Research plan
 - A detailed explanation of the experiments you are going to conduct, including why the experiments shed light on your subject
 - A discussion of what the potential outcomes of your experiments are, and what they will reveal.
 - A description of what you will do in the face of certain outcomes (e.g., if that does not work, we will try X because _____
If it does work, we will move on to Y because _____)
 - **This is important!** Break the project down into subgoals:
 - an easy one that you are 100% sure you can accomplish
 - a medium one that you think is realistic in a a month (i.e. about the length of about four homework assignments)
 - a stretch goal, that you would love to investigate if things go smoothly, but you're not sure you'll have time for here
 - Please include any preliminary data if you have it.

- A brief conclusion summarizing of why this work is important and will add to the field's collective knowledge, yet tractable enough that progress can be made on it if your research plan is executed.

There are no page length requirements for the proposal. It should be succinct where possible, yet can be as long as it needs to be (including any necessary figures) to tell the story.

The report must be turned in via email (to ncheney@uwyo.edu, by 11:59pm on Sunday 4/1) as a PDF generated by Latex or Word. Please use the Genetic and Evolutionary Computation Conference (GECCO) Latex or Word style files (<http://gecco-2018.sigevo.org/index.html/tiki-index.php?page=Papers+Submission+Instructions>).