IFT6163 Robot Learning Project Outline

You

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Abstract

Provide an **outline** of your course project. This is a sketch of what the final project write up will look like. You should reuse a lot of content from your project proposals and add more onto them. Basically, this is to provide another step on your way to your final project, get more feedback, and make sure there aren't any surprises. You can find an overleaf template for this assignment here. Overall, the **project update report** should be **no more than 5 pages** with at least three figures/tables. Include lots of information to show your progress with the project.

1 [4 pts] Project Introduction (2 paragraphs, with a figure)

Tell your readers why this project is interesting. What we can learn. Why it is an important area for robot learning.

2 [2 pts] What is the related work? Provide references: (1-2 paragraph(s))

Give a description of the most related work. How is your work similar or different from the most related work?

3 [2 pts] What background/math framework have you used? Provide references: (2-3 paragraph(s) + some math)

Describe what methods you are building your work on. Are you using RL, reset-free, hardware, learning from images? You want to provide enough information for the average student in the class to understand the background.

4 [4 pts] Project Method, How will the method work (1-2 pages + figure(s) + math + algorithm)

Describe your method. Again, You want to provide enough information for the average student in the class to understand how your method works. Make sure to include figures, math, or algorithms to help people understand.

5 [2 pts] What new skills are you(s) learning from this project?

List some of the technical skills you are learning from studying this method.

6 [6 pts] Experiments and Analysis

In this section

1. Describe what experiment(s) you are going to run **and why**? How do these show you have met your learning goals?
2. What do you think the results of these experiments will be?
3. Sketch out the figures that you will later generate from your work. Spend a few minutes drawing them out in GIMP or photoshop. Why will this be enough evidence for learning? Is anything missing?

Keep in mind these experiments are for this course project. What is expected is that you should provide evidence that your method works and it has been coded up well. Provide evidence of this via your data and learning graphs. However, this should not be restricted to learning graphs.

7 [2 pts] Video Results

Include a link to a video of the method so far. This is not intended to be a final performance video. Provide something to help me give feedback on what I would do to improve this method or debug issues.

8 [2 pts] Conclusions

What have you learned? What would you do differently next time? Reflect on the scope of your project, was it too much? Why?

9 [2 pts] How is the timeline for the project progressing? At least month-by-month granularity, ending with a complete project (outline what has been completed so far).

1. **Feburary**
   (a) Solve P = NP
   (b) Accidentally create AGI
2. **March**
   (a) Consider keeping AGI to yourself.
   (b) Use AGI to end world hunger.
   (c) ~~*profit*~~
   (d) Peace

10 [2 pts] How is the work divided?

Provide a description on what each group member is working on as part of the project. I recommend each student work on most of the parts of the project so everyone learns about the content.

Student Name: Did x, y, and z.

Student Name: Did x, q, and r.

Student Name: Did q, y, and r.

References