2/19/2020

Meeting Notes:

* We have finished Ch. 6 and are ready to move on to the next chapter/paper.
* Peng will upload some MATLAB code implementing MC (for the black jack game) and TD (for the windy grid world). They will be on the drive located in a folder named “Simulations” please take a look at the code for your own practice. If you have implemented other algorithms, please upload them in that same folder.
* I will be creating a GitHub account for the DRL club. I will have it private for us all members of the club. Items will also be uploaded there for our future reference.
* We have talked about how we are going to handle the next meetings. Please take a look at the ‘Timeline’ spreadsheet so you are aware of what we are doing next.
* For the next meeting (2/24), Andrew and Na will be the first members to present a paper. Please READ the paper so we can all contribute during the meeting. Here is the paper:<https://arxiv.org/pdf/1509.06461.pdf>. Also, you can find the paper in a folder named “Weekly Research Papers”… make sure you upload yours there before presenting a paper so we can all have access to it at least a few days before the presentation.
* For the meeting of 3/2, Peng & Ryan will be presenting Ch. 7. I am expecting to finish this chapter during this meeting. For the following meeting 3/9, Rayne & Shantanu will be presenting Ch. 8 and also we should be completing that chapter during that meeting (they will just go over the main points and not cover every detail in the chapter). This will conclude the end of this quarter meetings!
* For next quarter, I will be sending out a When2Meet survey (on 3/23) to plan our future Spring meetings’ date and time.
* We are skipping Chapter 11. If you look at the timeline, we should be good to finish all chapters up to Ch. 13 on time and we have time to present at least 7 papers (1 paper for 2 members) so everyone will have the chance to not only present a book’s chapter but also a research paper :)
* I also plan to send a survey so we can all select a date to present a paper. For the rest of the book’s chapters left for next quarter (9, 10, 12, & 13), we will need volunteers. Maybe we can go another round or I can send another survey to select chapters.
* From the timeline (see google drive), notice that we will have 3 meetings next quarters that will be used to wrap up a chapter and then start a paper presentation.
* For those who wanted the names of the state-of-the-art RL algorithms, here they are: TRPO, DDPG, PPO, A2C, SAC, and TD3. There are more but these are the most popular ones to best of my knowledge (I might be missing a couple). Also, as we mentioned in today’s meeting… We can probably do paper presentations on these RL algorithms! But starting with the backbone RL algorithms will greatly help to understand the ones mentioned above…
* One last thing, I have uploaded a pdf of a book titled “Design of Experiments for RL '' which contains outstanding Ph.D. research. This is just for your own reference and/or if you are bored and need to read more about the RL world :)