HW1 (total 100 points)

1. (10 points) Describe 1 potential risk of AI and how we can mitigate it (you can choose any potential risk except singularity/artificial general intelligence/superintelligence). You should describe how AI may bring about that risk, with evidence or reasoning.

2. (10 points) Read https://www.scientificamerican.com/article/will-machines-ever-become-conscious/ and discuss (a) what is sentient AI, (b) your take on whether sentient AI is possible and why

3. (5 points) Mention 5 AI systems that are already here – you can mention models you have interacted with or have read about.

4. (5 points) What AI system do you envision will be possible in 10 years' time and why. Note that there is no right/wrong answer for this. We are interested in what you think are possible and why.

5. (10 points) Read https://nickbostrom.com/ethics/ai.html and discuss (a) what are some of the things we can do to mitigate the risk of a superintelligence system? (b) based on the article, do you think an "AI for good" system has the potential to be bad and why?

6. (60 points) Choose 1 paper from this drive to read: https://drive.google.com/drive/folders/1hz8Vm_7xbvwpojYuOKJLKto5h0pbHAfc?usp=sharing (all the papers are about bias in ML models in computer vision, NLP, medical domains). Summarize the paper you read in the form of PPT presentation (maximum **10** slides). Your summary PPT should contain (a) the core idea of the paper, (b) the detail(s) of *at least* one major approach in the paper, (c) discussion of results, (d) conclusion, and *your* take on the paper – (e) what do you think are good about the paper and (f) more importantly, what is still missing (what are some of the open questions you think the paper has not answered)