Advances in Artificial Intelligence
Final Project

Requirements:

Apply the AI technology learned in the course "Advances in Artificial Intelligence" in this semester to a specific problem, design an algorithm to solve the problem, and write a report. （需要写全英文报告）

Your final project should include:

1) Title, Author(s), Student ID, Abstract

2) **Introduction:** 对这学期人工智能课程学习的内容进行一个整体描述，并简要描述各个章节知识点、概念、方法等（这一部分至少写 300 个单词。注意，是写本课程本学期讲述的内容，侧重考核学生对本学期授课内容的掌握程度）。在本学期本课程所学的内容里面，你最感兴趣的是哪部分内容？结合你感兴趣的那个章节的内容，用所学的算法解决一个实际问题（可以是已有算法，也可以是在此基础上的改进）This section introduces the content learned in this semester's artificial intelligence course, and briefly describe the knowledge points, concepts, methods, etc (at least 300 words). Then introduce your project. Why is it important or interesting? Describe why you choose this problem? What is the real application corresponding to this problem. we will be looking for Good motivation for the project and an explanation of the problem statement

3) **Related work**. Describe existing works for solving this problem. Advantage and disadvantage of these methods.

4) **Your Approach.** Describe the details of the algorithm or model you used. Why you choose this algorithm instead of others? Do you make any improvement based on existing algorithm? What is your contribution?

5) **Experiments.** A description of the data and Linkage to your dataset. Any other methods and hyperparameter choices that were explored. Presentation of results. Analysis of results. （注：如果选择深度学习作为你的期末大作业，深度学习模型需要自己训练，而不是用别人已经训练好的模型进行推理或者直接写别人文章里面的结果。）

6) **Conclusion.** Any insights and discussions relevant to the project.

7) **References.**

8) **Video presentation** (可选，此部分占期末大作业总成绩的 8 分，总分 100 分): You are strongly encouraged to provide a 3-4 minute video which summarizes your work. Include diagrams, figures and charts to illustrate the highlights of your work. The video needs to be visually appealing, but also illustrate technical details of your project. （需要做 PPT，而不是全程对着论文或者代码讲解）

Note:

1) We expect the report to be thorough, yet concise.

2) **Format:** Please use the CVPR template to write the final report.（可以选择CVPR 的 word 模板或者 latex 模板。对于没有使用过 latex 的同学，使用 word 模板 会更方便一些，最后需要转换成 pdf 文件）。 Final project writeups can be **at most 9 pages long（不含参考文献最多 9 页）,** excluding references. We will allow up to 5 extra pages for appendices and references. However, we may not look at the appendices, so please include all important information in the main report. If you did this work in collaboration with someone else, or if someone else (such as another professor) had advised you on this work, your write-up must fully acknowledge their contributions.

3) **Code:** You must submit your code in separate files. Code must be organized/readable for full credit.
   Please create a folder named as AI-FP-yourstudentID (say for example: AI-FP-6213113101) and put your paper/report and source codes in the folder. 将最后的 文件夹压缩以后上传到学校的希冀平台。

4) **Grading:** The final report will be judged based on the clarity of the report, the relevance of the project to topics taught in "Advances in Artificial Intelligence", the novelty of the problem, and the technical quality and significance of the work.

5) 请不要把以前的课程作业或者本学期其他课程的作业作为本门课程的期末 大作业提交。另外，一定要有自己的实验结果。

Submission Deadline: 第 14 周周四。