
CS485/585 Homework

Literature Survey and Critical Analysis

The aim of this homework is for you to further study one of the topics covered in the lecture. You are expected to learn more about the topic you choose by a literature review and analyze the limitations of a work you choose. The homework will be done **individually**.

1. **[60 pts]** Pick a topic from the class and survey 6 papers that were not covered in the class. Mention what each paper proposes and its limitations. The papers should be published in the last two years. They should be published in one of the following conferences; NeurIPS 2023, ICCV 2023, CVPR 2023, NeurIPS 2022, ECCV 2022, and CVPR 2022 (from the main conference, not the papers presented in the workshops). Note that the papers presented at these conferences are open-access.
2. **[20 pts]** Among those papers that have their code released¹, choose the one that gives the best score. Run their inference code on example images. Add a few of the visual results to your report.
3. **[20 pts]** Find cases where the algorithm fails. Other than running the inference code on the example images that are provided, run it on different images (Example images may be the ones that the algorithm works on the best.). Think about what the challenging cases would be for that algorithm and try to find such images to see the failure cases. You do not have to find those images from the test sets, you can find out of domain images online or from your own image collection. Add your input images and output images to the report and discuss why the method does not work perfectly.

For this assignment, you will use IEEE journal template ², which can be edited over Overleaf. Your report can contain **4 pages** at most, including references.

¹You can check out <https://paperswithcode.com/> to find the papers which have their code released, where you can search topic-wise and dataset-wise

²<https://www.overleaf.com/latex/templates/ieee-journal-paper-template/jbbbdkztwxrd>