

Data 425: Assignment 2
Reproducibility study
Deadline: 22th of May, end of day

The goal of this assignment is to study two scientific papers and attempt to reproduce the results of some (3-4) numerical experiments from them.

That means that you would need to attempt to repeat the same experiments as the authors did and evaluate how close your results are to the ones reported by the authors and whether there is sufficient information in the papers to fully recreate these experiments. Please also explain in your report what you think the reasons were for discrepancies in your results and the published ones. Please see the requirements below.

The two papers are:

1. Li, H., Chaudhari, P., Yang, H., Lam, M., Ravichandran, A., Bhotika, R., & Soatto, S. (2020). **Rethinking the Hyperparameters for Fine-tuning**. arXiv preprint arXiv:2002.11770; published at ICLR
2. Kornblith, S., Shlens, J., & Le, Q. V. (2019). **Do better Imagenet models transfer better?**. In Proceedings of the IEEE conference on computer vision and pattern recognition (pp. 2661-2671).

Requirements:

- You may work on this assignment as a group of up to 3 students
- Please choose around 3-4 experiments. **One** experiment is **one** set of hyperparameters applied to **one** dataset.
- You may choose **one** experiment from the Dropout paper(link on Learn).
- The report will need to have a structure.

An example structure is provided below:

- Introduction: Description of what is your report about
 - Data: Description of what datasets you utilised
 - Methods: Description of what experiments you have undertaken
 - Results: Results of these experiments, comparison with the original papers
 - Discussion: What sort of difficulties you might have faced, and why results are different from the papers. Some other insights.
 - Conclusion: Short summary of your report
 - References
- Please have captions to all your figures and tables and refer to them in the report
 - The length of the report is up to 10 pages
 - The report needs to be submitted in PDF
 - Any code of this assignment should be written in Python and Python notebook submitted