## ML2021Spring HW11 Report

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Public Score	Private Score
0.79744	0.79760

The methods I used to pass the boss baselines include:

- 1. I added an extra layer to FeatureExtractor() to increase model complexity.
- 2. I trained more epochs (1000 epochs) than the default 200 epochs to make the accuracy stabler, and it indeed raised the accuracy.
- 3. I used adaptive lambda for training and constructed it according to the paper:

The domain adaptation parameter  $\lambda$  is initiated at 0 and is gradually changed to 1 using the following schedule:

$$\lambda_p = \frac{2}{1 + \exp(-\gamma \cdot p)} - 1,$$

where  $\gamma$  was set to 10 in all experiments (the schedule was not optimized/tweaked). This

where p is a variable changing linearly from 0 to 1.

Paper: https://arxiv.org/pdf/1505.07818.pdf