

Skipping the Paper

Scaling and Benchmarking Self-Supervised Visual Representation Learning

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March 3, 2020

1 Summary

The authors provides an extensive standardized bench-marking for self supervised training approaches/methods. The effect of scaling along size of data, model capacity and problem complexity were studied using two self-supervised approaches named Jigsaw and Colourization. The study infers that the transfer performance increases log-linearly and quality of representation increases with higher model capacity and the problem complexity and hence the performance gain is complimentary on these 3 scaling axes. Their proposed benchmarking suite has ImageNet-1K, ImageNet-22K, Places2015 and YFCC-100M for linear classification tasks. The self-supervised learning was able to perform very well in surface normal estimation, ImageNet baseline on navigation tasks and object detection baselines. The study shed light on the potential effects of scaling on data, model capacity and the complexity of the problem that will surpass the supervised pre-training.