Brain-Score Which Artificial Neural Network for Object Recognition is most Brain-Like

Brain-score: Composite of multiple neural and behavioral benchmarks that score any ANN on how similar it is to the brain’s mechanisms for core object recognition.

State-of-the-art deep ANNS: (best brain score)

* DenseNet-169
* CORnet-S
* ResNet-101

www.Brain-Score.org 🡪 Hosts the neural and behavioral benchmarks of ANNs

Some ANNs appear to predict neural responses better than others but not because they perform better on ImageNet. But ANN’s ImageNet performance correlates robustly with behavioral metrics.

Model that score high on brain data are also not the ones ranking the highest on ImageNet performance, suggesting a potential disconnect between ImageNet performance and fidelity to brain mechanisms.