Why Machine Learning Is Exciting

Duke + DataScience

What is machine learning?

Why is there so much attention on machine learning?

mite — container ship — motor scooter — leopard ← true image label
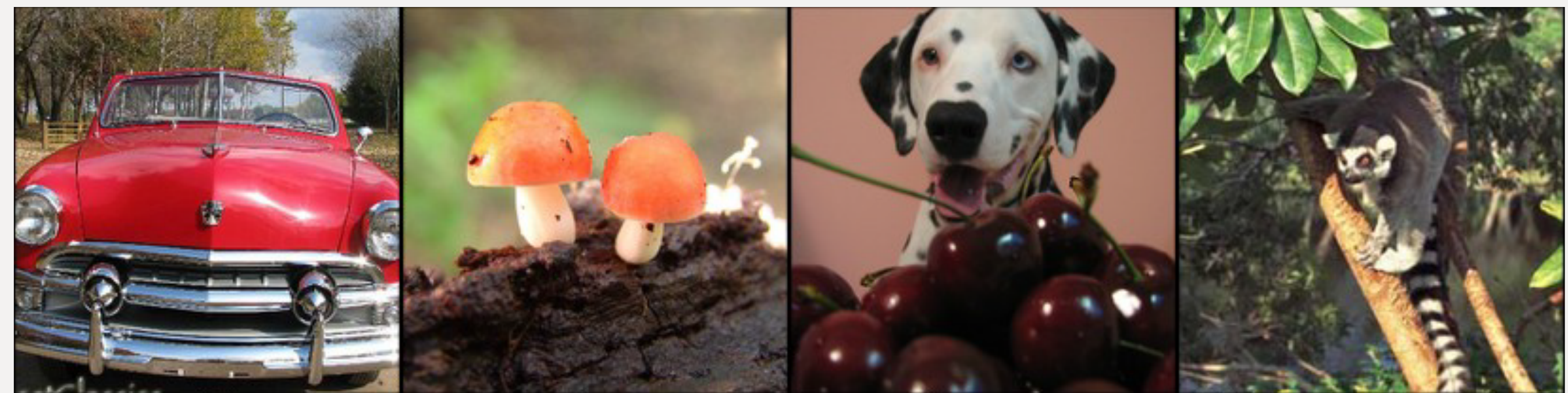
mite	container ship	motor scooter	leopard
black widow	lifeboat	go-kart	jaguar
cockroach	amphibian	moped	cheetah
tick	fireboat	bumper car	snow leopard
starfish	drilling platform	golf cart	Egyptian cat

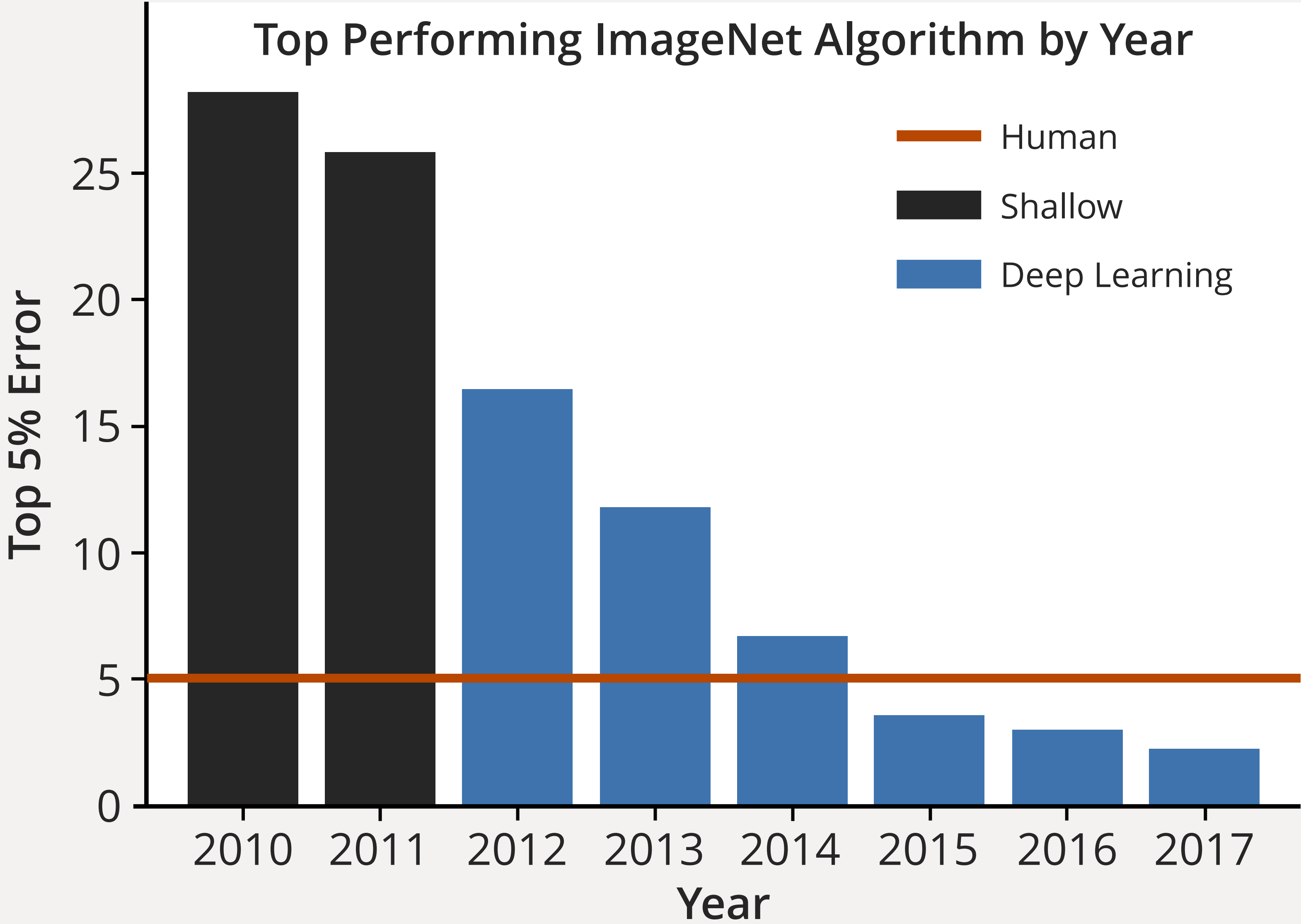assigned labels by machine

grille — mushroom — cherry — Madagascar cat ← true image label

convertible	agaric	dalmatian	squirrel monkey
grille	mushroom	grape	spider monkey
pickup	jelly fungus	elderberry	titi
beach wagon	gill fungus	Staffordshire bullterrier	indri
fire engine	dead-man's-fingers	currant	howler monkey

assigned labels by machine

ImageNet Challenge

Deep Learning in Games
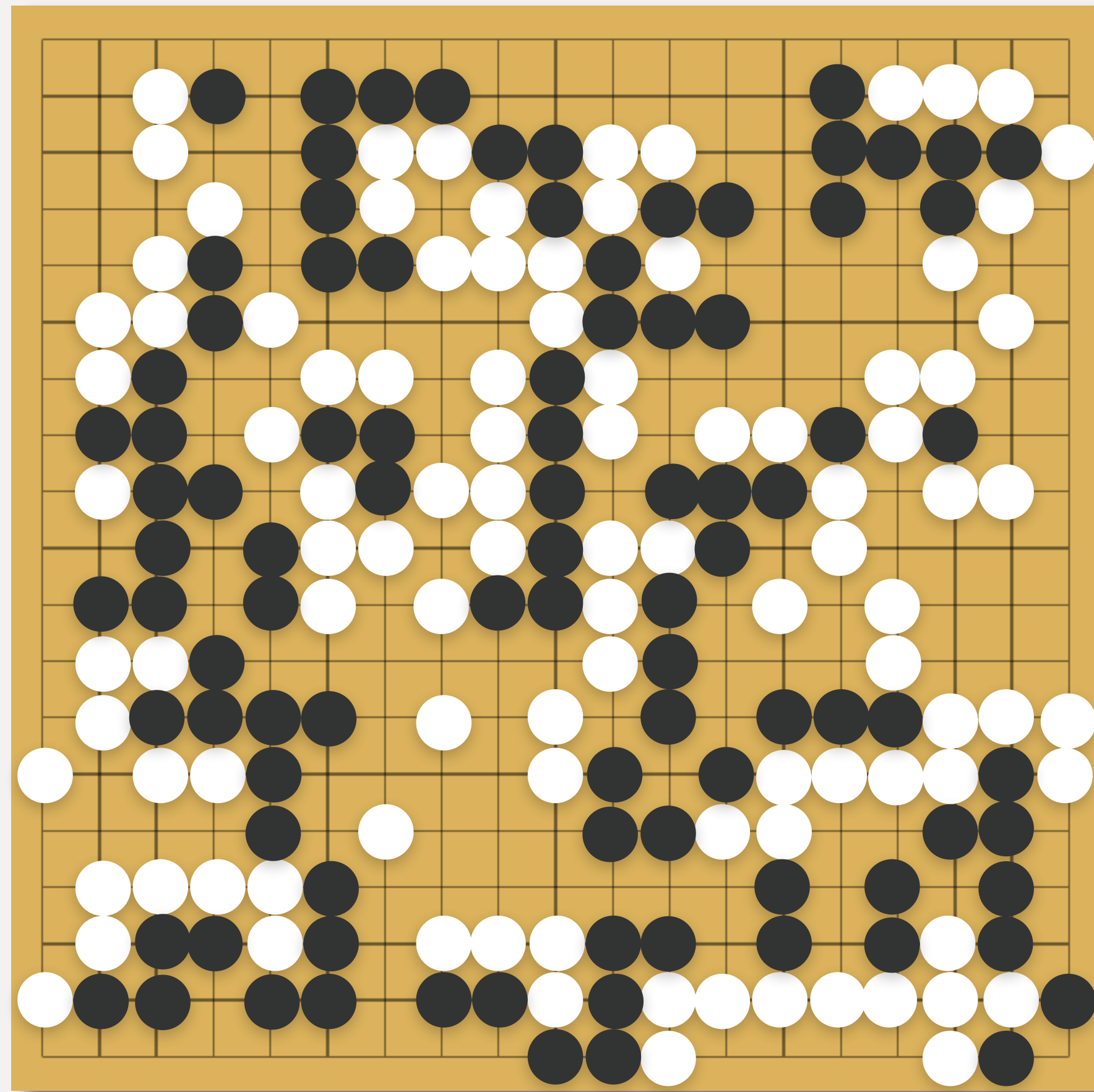
Credits

ImageNet Images

Krizhevsky et al. (2012) ImageNet Classification with Deep Convolutional Neural Networks http://papers.nips.cc/paper/4824-imagenet-classification-with-deep-convolutional-neural-networks.pdf