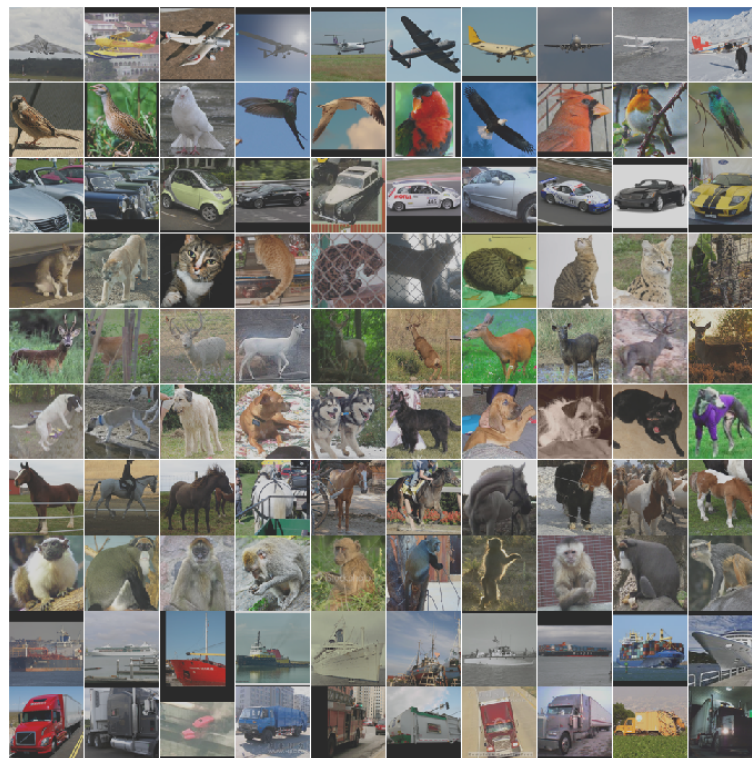


NGCM ML Workshop

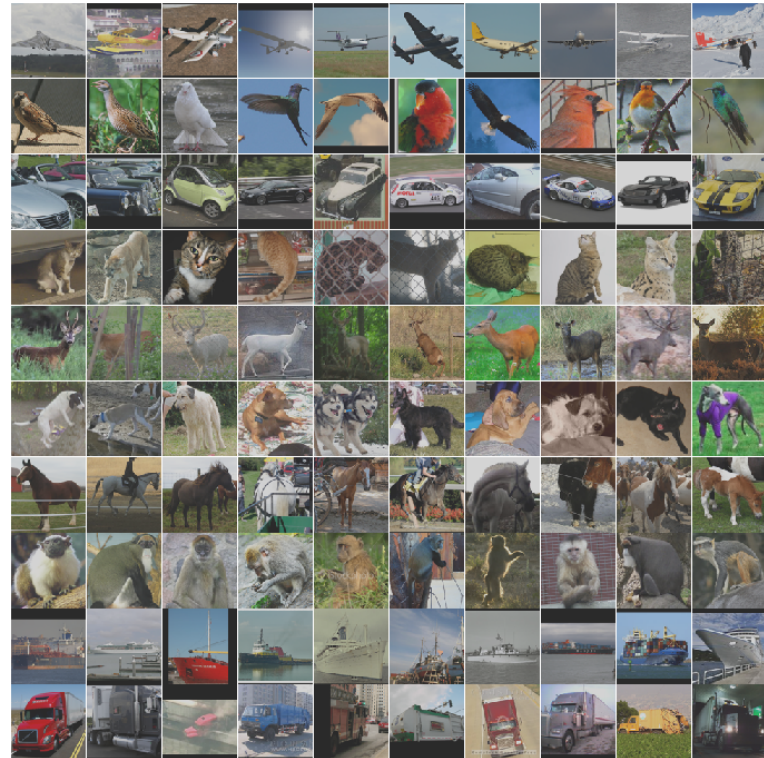
When Machine Learning Works



ImageNet, Alpha Zero

Outline

1. **Image Net**
2. Alpha Zero



ImageNet

- ImageNet was set up to create a databases of images of different objects
- Similar to WordNet, a dictionary/ontology of words
- It was quickly turned into a competition to get a computer to identify 1000 categories of objects
- The competition *ImageNet Large Scale Vision Recognition Competition* is probably why we are here!

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Image classification

Easiest classes

red fox (100) hen-of-the-woods (100) ibex (100) goldfinch (100) flat-coated retriever (100)



tiger (100)



hamster (100)



porcupine (100)



stingray (100)



Blenheim spaniel (100)



Hardest classes

muzzle (71) hatchet (68) water bottle (68) velvet (68) loupe (66)



hook (66)



spotlight (66)



ladle (65)



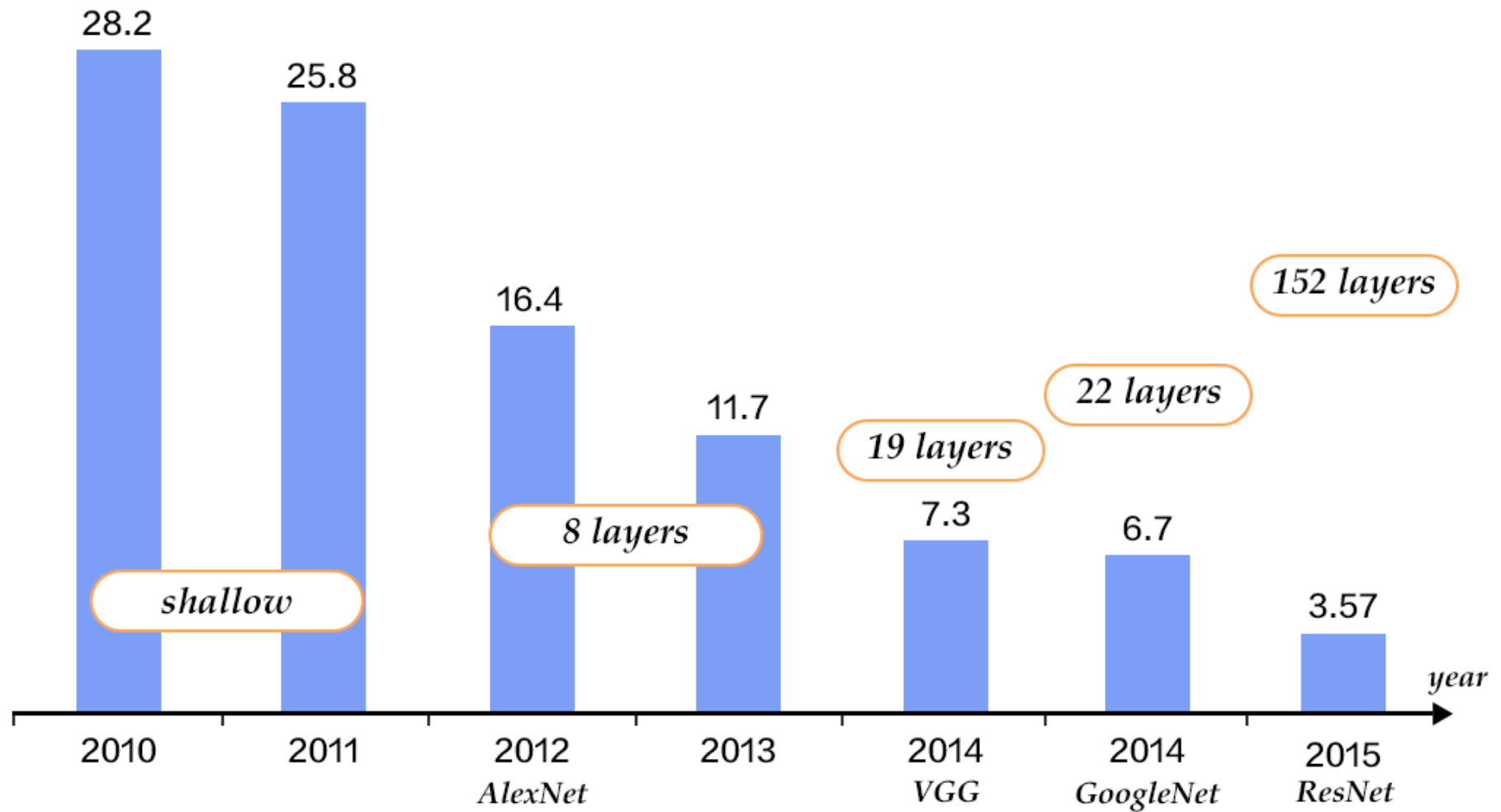
restaurant (64)



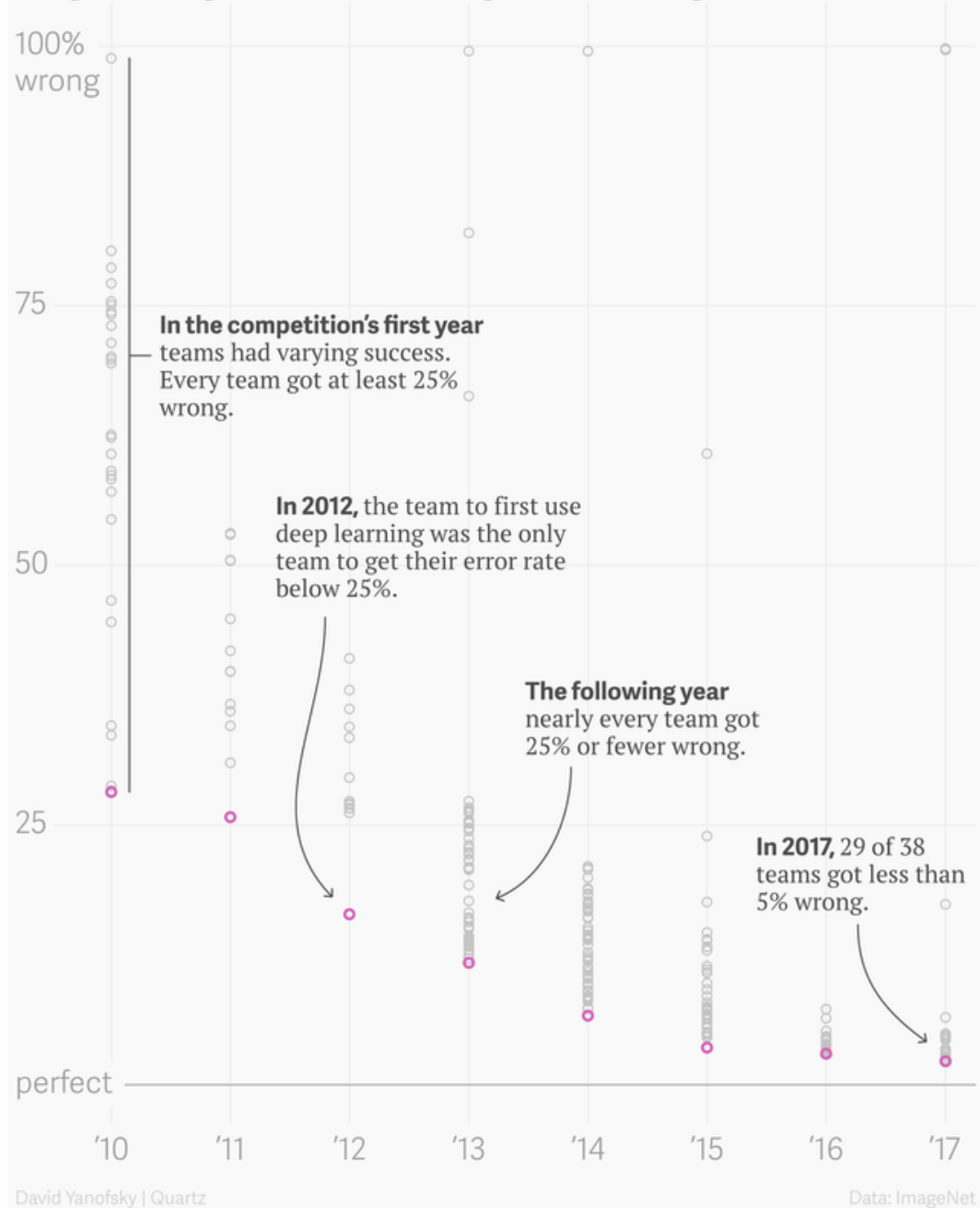
letter opener (59)



Results

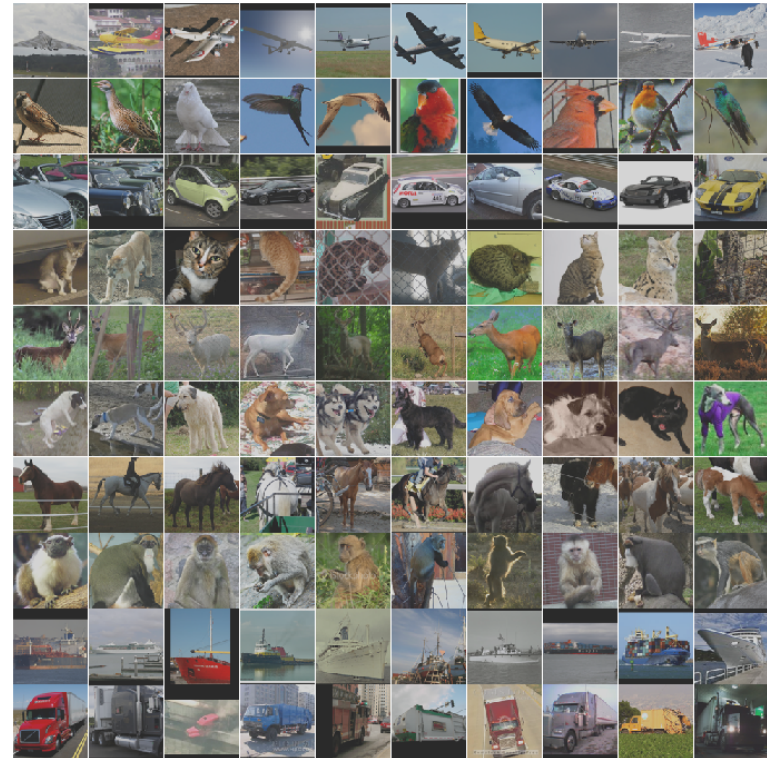


ImageNet Large Scale Visual Recognition Challenge results



Outline

1. Image Net
2. **Alpha Zero**



AlphaGo



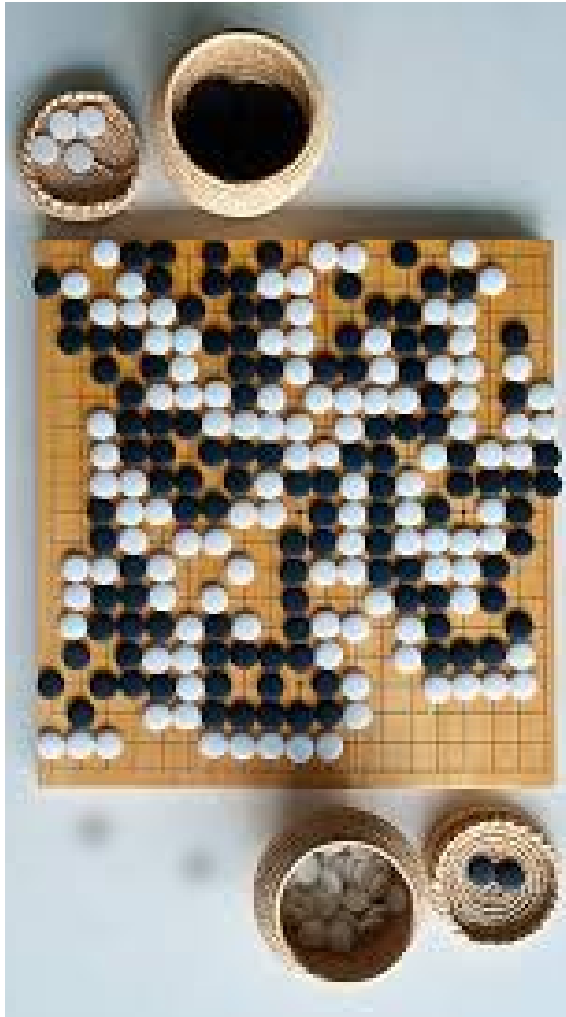
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 - ★ It has a massively larger search tree than chess
 - ★ Board evaluation is very hard
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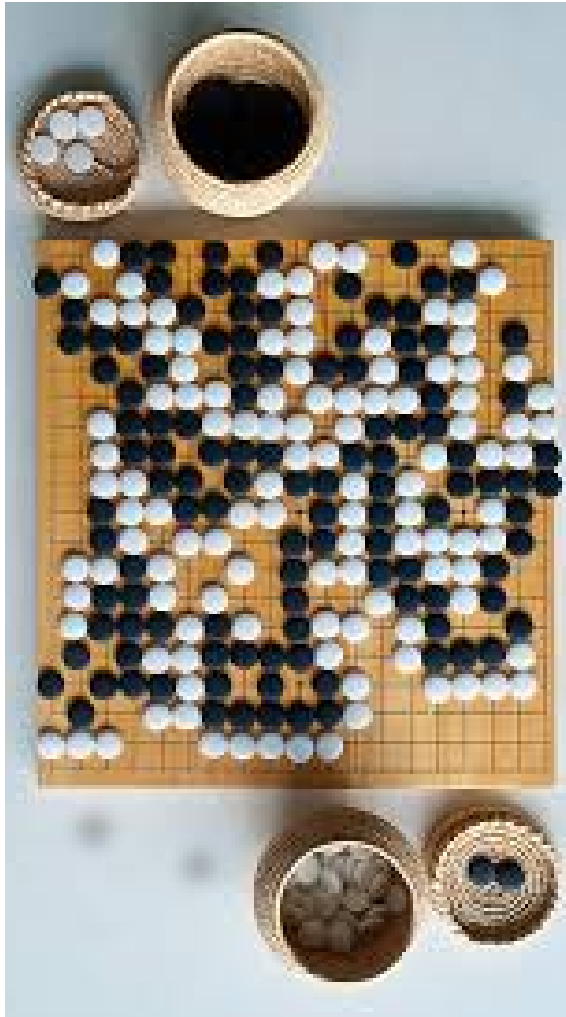
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