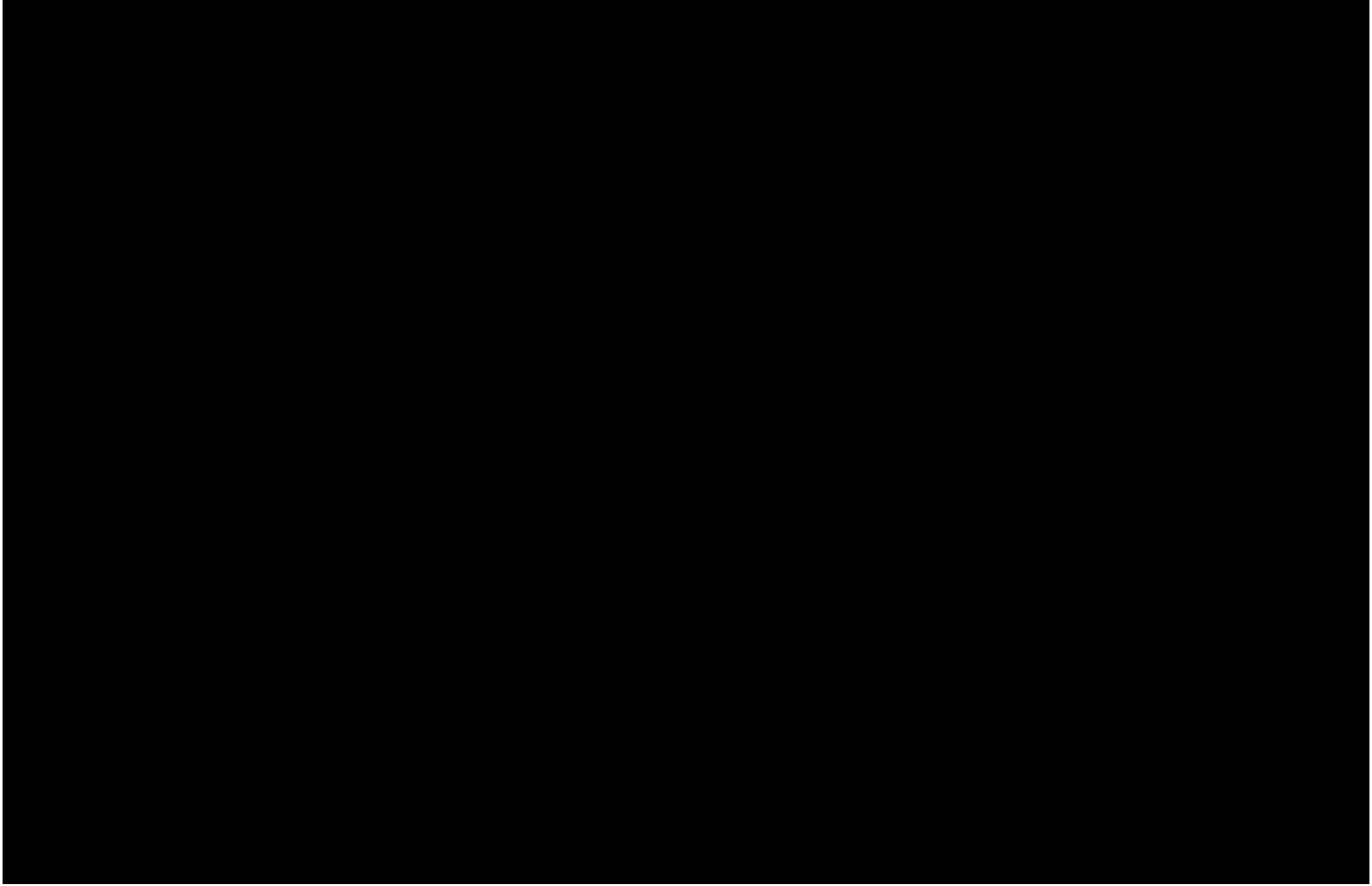
Recognize And Classify Animal -- No Animal

Subjects must raise their hand if they see an animal:

- 60 images
- 1 image per second

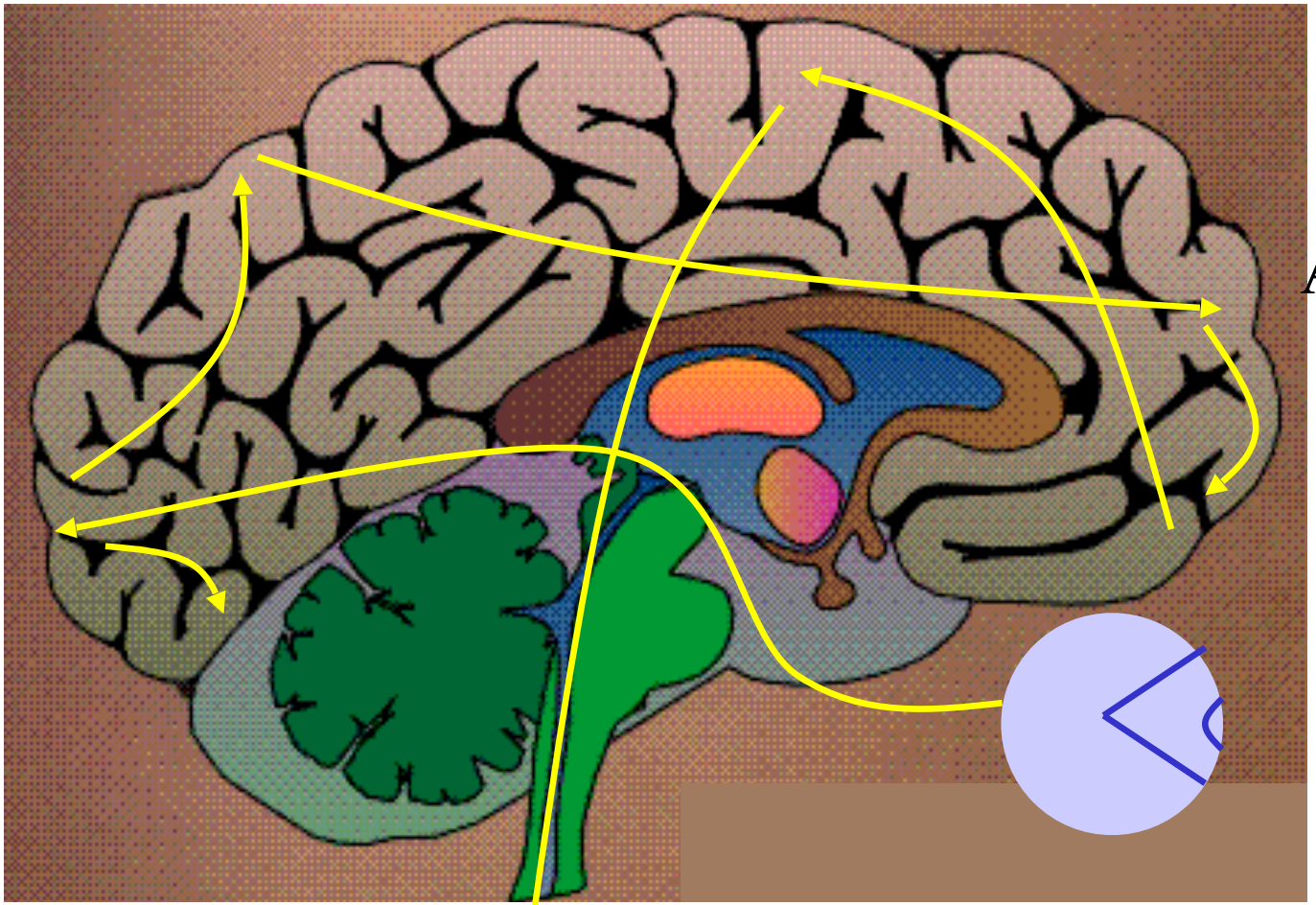
→ Measure their reaction time.

Simon Thorpe, *Nature*, 1996



Thorpe, *Nature*, 1996

Brain Pathways



Challenges

Vision involves dealing with:

- Noisy images
- Many-to-one mapping
- Aperture problem

→ Useful information can be extracted by:

- Designing appropriate models.
- Training our algorithms effectively.

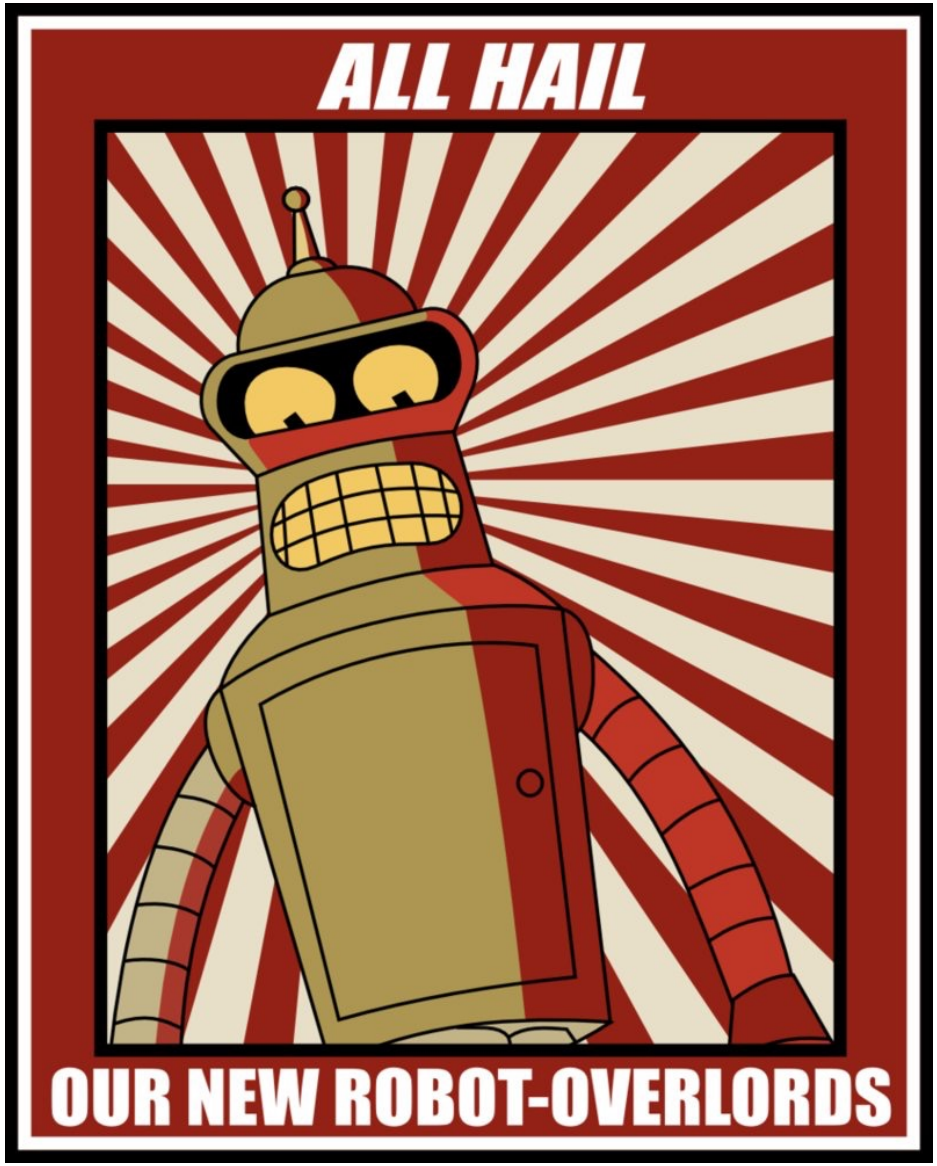
Opportunities

Cameras are becoming ever more prevalent and Deep networks have immensely boosted the performance of Computer Vision algorithms:

- Tremendous potential for applications.
- A window on the way the mind works.

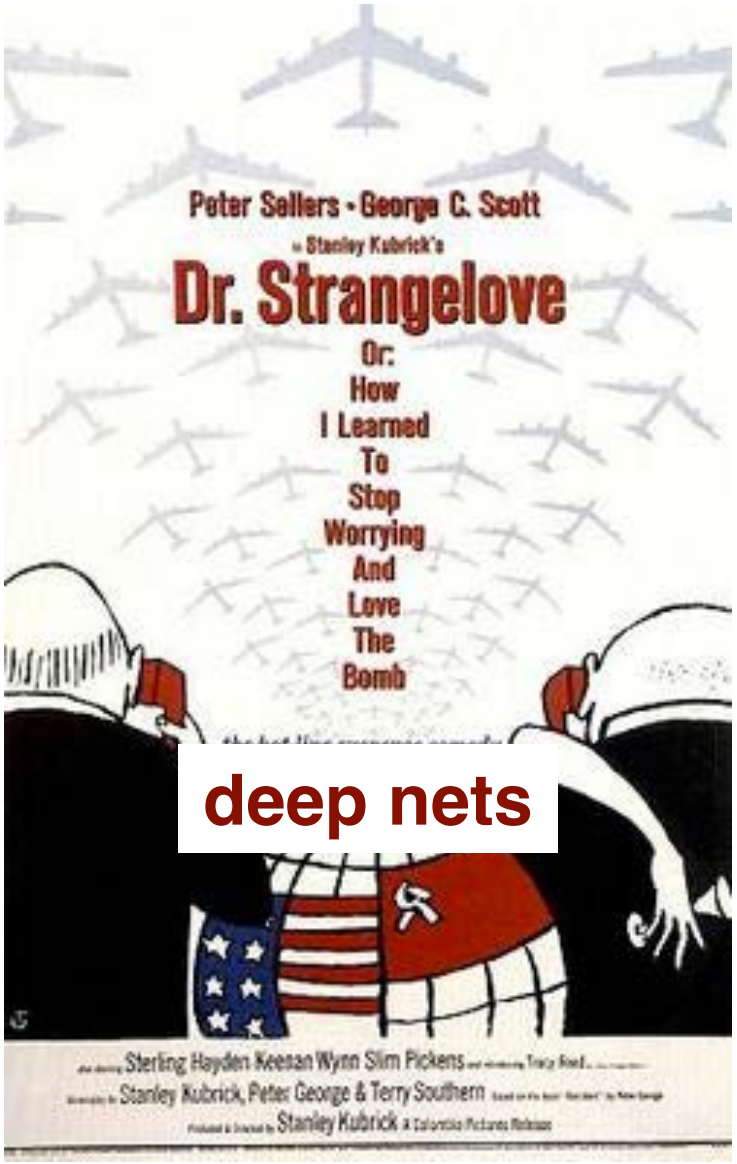
→ But still Much work to be done !!!!

Deep Learning Revolution



or

.....



Topics Covered

Introduction:
- Definition
- Human vision
- Image formation

Extracting features:
- Contours
- Texture
- Regions

Shape recovery:
- From one image
- Using additional images

Exam

- In August at a time yet to be defined.
- Possibility of extra-mural exam if you **cannot** come.
- 1.5 hours.
- 1 two-sided **hand-written** A4 page of notes.
- Questions on **non-indented** slides on webpage.

See you then