Class project

Figure 1 HCNNs as models of sensory cortex. (**a**) The basic framework in which sensory cortex is studied is one of encoding—the process by which stimuli are transformed into patterns of neural activity—and decoding, the process by which neural activity generates behavior. HCNNs have been used to make models of the encoding step, that is, they describe
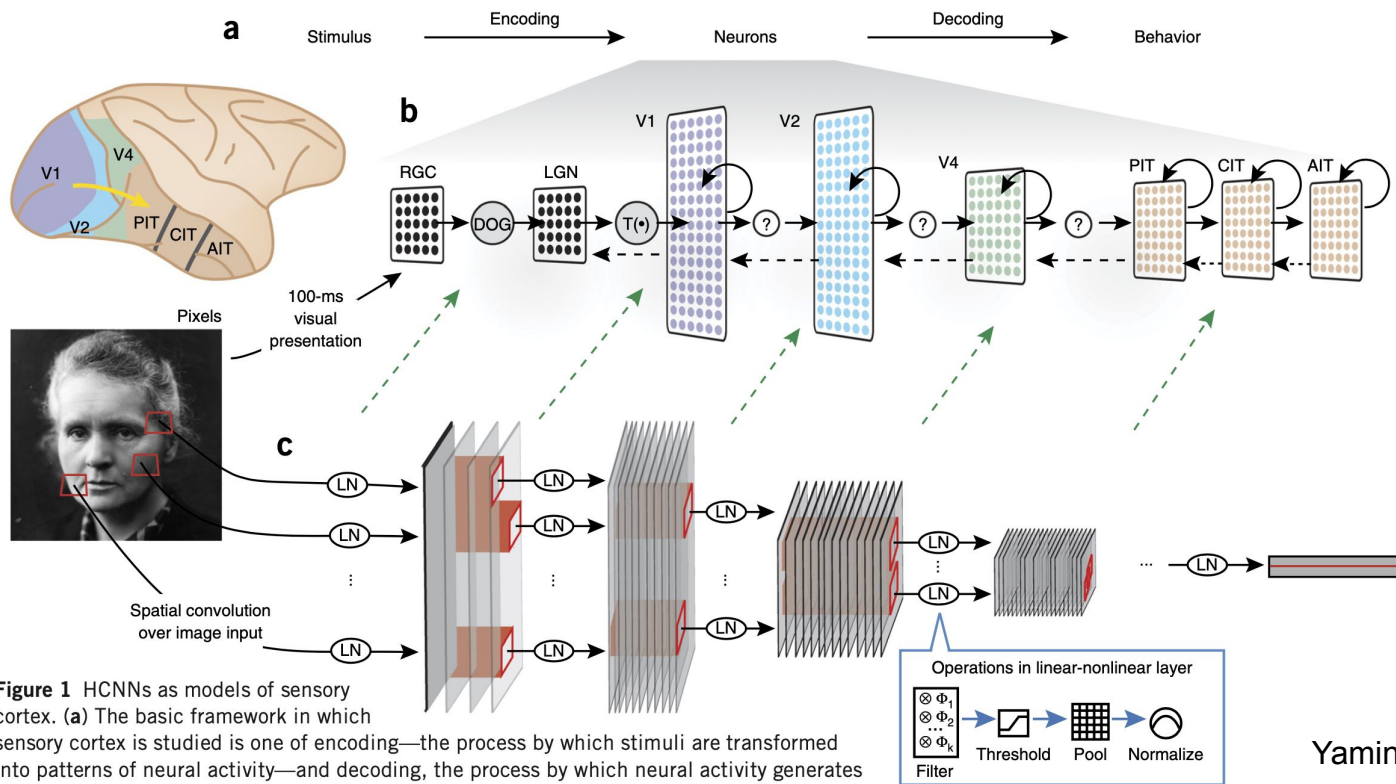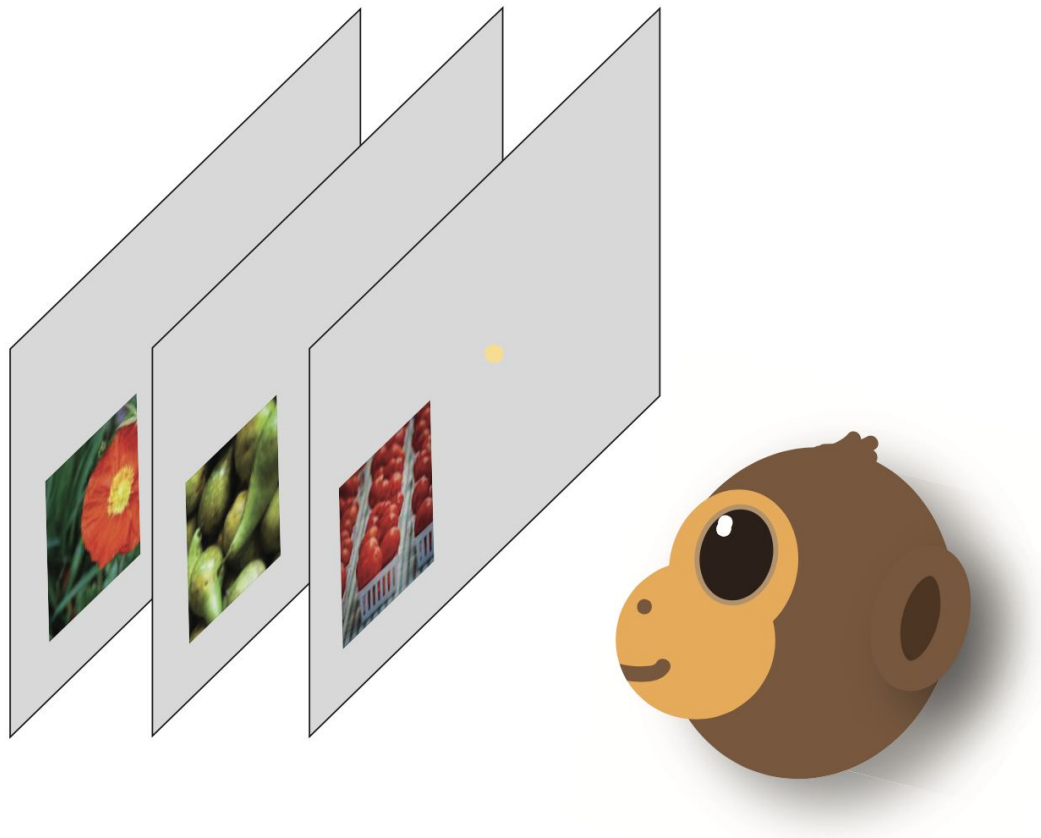
Yamins and DiCarlo, 2016.

Data: We show many natural images and record from visual cortical neurons.
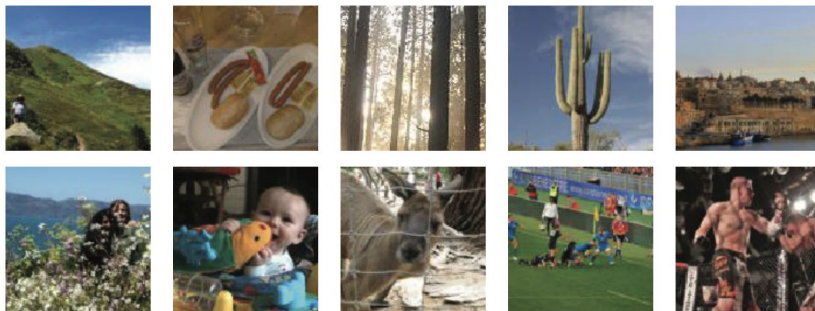
- 1,000 natural/artificial images

- 100 neurons from mid-level visual area V4*

- responses are z-scored

*simulated from a deep neural network

Two types of images: "normal" images and "gaudy" images

normal images

gaudy images

- images are paired: gaudy image is a transformed version of a normal image

Let's analyze this data!

But first, what are some scientific questions we can ask about this data?