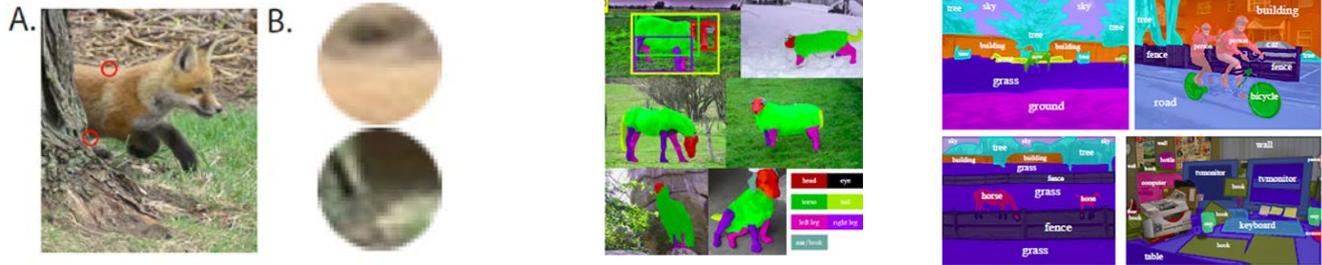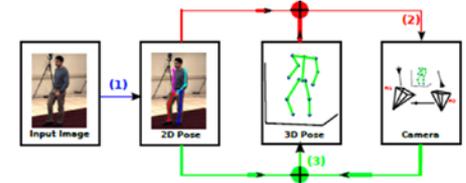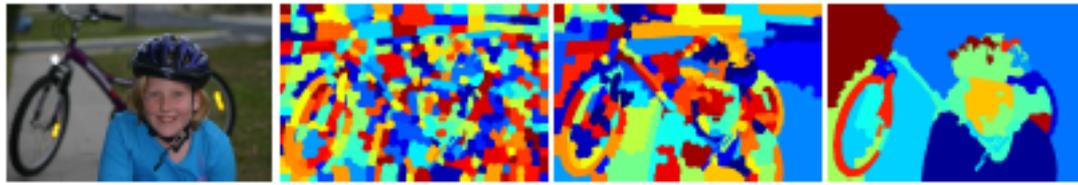- Center for Cognition, Vision, and Learning. UCLA

- Prof. A.L. Yuille

- Current Team Members – none.

- Research Areas of Expertise:

- (i) Computer vision models of image parsing. Segmentation, labeling, object and part detection, action recognition,

- (ii) Experience with neuroscience – electrode recording, fMRI,

- (iii) Machine learning expertise.

- (iv) *Theoretical framework for vision --- based on compositional models. Consistent with neuroscience – but how to test?*

- Why Compositional Models?

- (I) Addresses scalability issue – complexity of visual tasks, complexity and local ambiguity of images.

- (II) Key ideas – hierarchical structured representations. Objects built from parts, built from subparts.

- (III) Combine local ambiguous hypotheses to form larger less ambiguous hypotheses (more context)

- (IV) Local architectures – neutrally plausible?

- We have neuroscientific collaborators on electrophysiology (T.S. Lee CMU) and fMRI (D.K. Kersten UMN).

- *But no knowledge of* "emerging technologies in high-resolution and high-throughput brain mapping-such as serial electron microscopy and volumetric calcium imaging."

Contact Information

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