**Faculty mentor:** Justin Gardner

**Faculty supervisor:** Justin Gardner, Assistant Professor, jlg@stanford.edu

**Project topic(s):** Vision, attention and perceptual cognition

**Brief description of scientific issues:**
How do cognitive functions such as attention change visual perception? How do we infer states of the world from ambiguous visual input? How can we use cognitive functions such as attention or visual search to improve our sight when we have degraded visual input due to disease or damage to the retina? We address these questions using behavioral, neuroimaging and computational methods.

**Skills required:**
- Computer programming (e.g. Matlab, Python)
- Basic knowledge of statistics
- Ideally, having taken either Psych 30 (Perception) or Psych 50 (Cog Neuro) or both

**Skills to be learned:**
- Experience working with human subjects
- Developing, running and analyzing visual psychophysics experiments
- Using Bayesian models of perception
- Understanding of basic visual neurophysiology

**Hours:** Full time