Faculty mentors: Justin Gardner

Research supervisor(s):  
Akshay Jagadeesh, akshayj@stanford.edu

Project topic(s): How do visual object representations in the human brain give rise to perception?

Brief description of scientific issues:  
Our project will focus on how the human brain generates representations of objects and uses those representations to perform challenging perceptual tasks. To answer these questions, our lab uses a combination of neuroimaging (e.g. fMRI), behavioral, and computational methods. We are interested not only in visual perception, but also in how cognitive factors, such as attention, learning, or memory, modulate neural representations to influence perception.

Skills required:  
- No previous research experience necessary  
- Enthusiasm to learn about cognitive neuroscience, visual perception, and models of attention  
- We will provide training in collecting behavioral and/or neuroimaging data  
- Python/Matlab programming experience is beneficial. However, we can provide training in simple programming for analysis of data.  
- Experience with computer vision and computational modeling is a plus, but not required.

Skills to be learned:  
- Experimental design for behavioral and/or neuroimaging experiments  
- Data collection of behavioral and/or neuroimaging data.  
- Computational modeling of visual representations.

Hours: Full time