**2020 Summer Research Project Description**

|  |  |
| --- | --- |
| **Project title:** | **Can stimulus priority account for what captures our attention and what gets ignored?** |
| **Positions available:** | **1** |
| **Project duration:** | * 20-30 hours per week * 10 weeks |
| **Description:** | When searching for a particular object (e.g., a particular red shirt in your closet) we tend to search by looking for the prominent features of that object (e.g., looking for red things). At the same time, we try to resist distraction by things that are not currently relevant (e.g., pants hanging in the closet). This process of ‘attentional guidance’ during visual search is relevant to a wide range of real-world scenarios (e.g., radiologists looking for cancer in an X-ray, baggage screening in airports, etc.). The aim of this project is to model such a process of search in distraction, and to test our model using experiments in human participants. |
| **Expected outcomes and deliverables:** | Scholars will gain experience working in a cognitive neuroscience lab. The scholar will learn how mental processes can be conceptualised using mathematical models, and how we go about testing and refining such models by collecting behavioural and/or neural data from human participants. The particular aspects of the project the scholar will be working on will be decided in conjunction with the scholar, but may include coding a model, designing experiments, testing human participants, etc. Scholars will be expected to present their work in a lab-meeting format at the end of the 10 weeks. |
| **Suitable for:** | This project would most suit a student with a background in mathematics, computer science, programming, engineering, etc. Applications from technically minded students with a background in psychology, neuroscience, etc., will also be considered. |
| **Primary Supervisor:** | Jason Mattingley & Anthony Harris |
| **Further info:** | Please direct any questions about the project to Dr Anthony Harris at: anth.m.harris@gmail.com |