FACULTY MENTOR Yu, Angela

PROJECT TITLE Predicting political beliefs from a human desire for geometric perfection

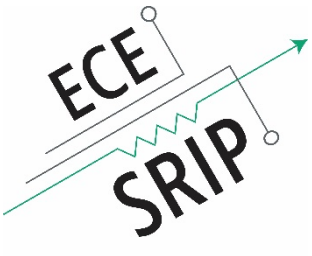
PROJECT DESCRIPTION

Recently it has been shown people who perceive imperfect squares (or triangles, circles, etc.) as more deviant from the ideal form also tend to be politically more conservative! In this project, we will use machine learning tools and crowdsourced data to find out whether this political conservatism is more driven by an intolerance for imperfection, a decreased capacity for generalization, or a stronger preference for rule and order.

INTERNS NEEDED 1 MS Student OR 1 Undergrad Student

PREREQUISITES

Students must have experience with programming, machine learning, and ideally an interest in human psychology or cognition.



FACULTY MENTOR Yu, Angela

PROJECT TITLE Identifying different face processing strategies as a function of race

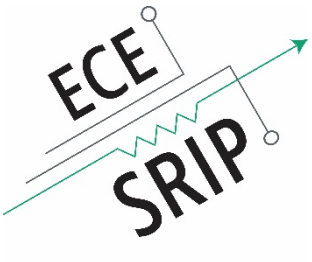
PROJECT DESCRIPTION

It has long been known that faces belonging to other races are more difficult for a person to identify and also viewed as less attractive (e.g. black faces viewed by a white person). Using a combination of machine learning tools and crowdsourced data, we will characterize what features people use to categorize face images and rate attractiveness, and how this differs depending on the race of the viewer.

INTERNS NEEDED 1 MS Student OR 1 Undergrad Student

PREREQUISITES

Students must have experience with programming, machine learning/vision, and ideally an interest in human psychology or cognition.



FACULTY MENTOR Yu, Angela

PROJECT TITLE Leveraging human "irrationalities" to optimize product placement

PROJECT DESCRIPTION

Human preferences for a product are known to vary depending on the exact set of available alternatives (e.g. customers are more likely to buy a smart phone with intermediate speed and display resolution if the alternatives are one with great speed but poor resolution and one with poor speed but great resolution, in what is known as the "compromise effect"). In this project, we will (1) model how these dependencies arise, (2) predict in hypothetical scenario what is the ideal set of alternative products should be in order to maximize the appeal of a product, and (3) test the predictions in an online crowdsourcing platform.

INTERNS NEEDED 1 MS Student OR 1 Undergrad Student

PREREQUISITES

Students must have experience with programming, machine learning, and ideally an interest in human psychology or cognition.

FACULTY MENTOR Yu, Angela

PROJECT TITLE Predicting human decision-making using mouse tracking and eye blink rate monitoring

PROJECT DESCRIPTION

It has been observed that how long someone looks at an item (among many options) and how rapidly the person blinks reveal how likely the person will choose that option. In this project, we will use an online crowdsourcing platform to see whether we can predict a person's eventual choice based on the mouse cursor position/duration and eye blink rate monitoring.

INTERNS NEEDED 1 MS Student OR 1 Undergrad Student

PREREQUISITES

Students must have experience with programming, machine learning, and ideally an interest in human psychology or cognition.