

## Causal Machine Learning

**Faculty Member:** [Yusuke Narita](#)

### Proposal Description:

Imagine Google is running A/B tests (randomized experiments) that randomly assign billions of Youtube video ads to billions of user impressions, each of which then produces some outcome like a click.

For more on Youtube ads, see <https://www.youtube.com/watch?v=KW0eUrUiyxo>

Google/Youtube/advertisers are interested in what kind of video ads are effective at changing user behavior.

How should we extract video features that drive treatment effects?

This project attempts to answer this question by combining causal inference and machine learning (especially computer vision techniques with deep learning).

### Requisite Skills and Qualifications:

I am looking for an RA to help with either method or empirical side of this project.

An ideal candidate is somebody who has done coursework and has strong interests in econometrics/statistics (especially causal inference) and machine learning (especially computer vision and image recognition).

Hands-on experience in machine learning algorithms is a big plus.

Please attach a transcript with your application.

Including a writing sample would be a plus though not required.

**Award:** Devesh Agrawal

**Tobin Application Link:** [Tobin Application](#)

**Project Type:** Tobin RA

**Project Year:** 2019

**Term:** Spring 2019

**Source URL:** <https://economics.yale.edu/undergraduate/tobin-ra/spring-2019/causal-machine-learning>