

# Onyi Lam

## Economist and Data Scientist

☞ Washington DC, Citizenship: USA, Hong Kong 🏠 [onyilam.github.io](https://onyilam.github.io) ✉ [onyilam@gmail.com](mailto:onyilam@gmail.com)

### Education

<b>PhD Economics</b> , UC San Diego, USA	2012- 2017
<b>MPP Public Policy</b> , University of Tokyo, Japan	2010-2012
<b>BEng Industrial Engineering and Operations Research</b> , UC Berkeley, USA	2005-2007

### Skills

**Econometrics:** Causal Inferences, Program Evaluation, Regression Discontinuity, Natural Experiment

**Data Science:** Supervised and Unsupervised Classification Algorithms, Natural Language Processing, Machine Vision, Neural Network Models

**Computer:** Python, R, SQL, Django, git, Docker, AWS, Google Cloud

**Language:** English (Fluent), Cantonese (Native), Mandarin (advance), Japanese (advance)

### Experience

**Data Science Associate / Computational Social Scientist**, Pew Research Center, Washington DC, USA May 2017 - Current  
Incorporate emerging computational methods with ongoing research initiative of the Data Labs. Projects include study of political polarization in congressional rhetoric, Americans' online interest in gun purchase using Google Trends, gender classification of news and Google images by training and deploying a neural network model, development of a GeoDatabase to examine how attitudes of survey respondents overlay with geography

**Quantitative Researcher**, UC San Diego Extension, USA Dec 2016-Apr 2017  
Built a machine learning prediction model to identify factors leading to academic success using data from a local high school.

**Data Science Fellow**, Data Science for Social Good, Chicago, USA May 2016-Aug 2016  
Built a machine learning prediction model to predict and identify students at risk of interacting with the juvenile criminal justice

Cleaned and merged datasets in python and SQL, experience with ETL process, created a machine learning pipeline

Our model performs 87% better than the baseline in identifying students at risk

**Analyst**, BlackRock, New York and San Francisco, USA 2008-2010

Provided ongoing support to external users of BlackRock's risk management software enterprise system. Specific tasks included writing SQL queries to identify trades that were booked, provided software training to external users.

Worked with the Relationship Management group to support sales and implementation process

**Intern**, MSCI Barra, Berkeley, USA Jul 2007-Aug 2007

Updated and conducted extensive quality assurance on financial databases with data mining and data management software

### Academic Research

**Advertisers Capture: Evidence from Hong Kong** (Submitted)

Initiate and finish project from beginning to end

Code in R to construct a measure of political polarization on the newspaper articles

Code in python to scrape news articles, clean and extract useful information, and run multinomial logistic regressions to estimate and calculate the financial loss that a pro-Democracy newspaper suffered

**Measuring Subjectivity in History Textbooks** (Submitted)

Write Python scripts to clean the text, count adjectives, calculate the ratio of positive to negative words and employ word embedding (word2vec)

**Celebrities Capture: Evidence from Weibo**

Use Selenium to data mine Weibo (Chinese version of Twitter) to retrieve posts

Analyze trends that contain patriotic sentiment by studying the diffusion dynamics

### Other Experiences

**Statistical Consultant**, Wisers, Hong Kong Jan 2017-Feb 2017

Guide the construction of a social media sentiment index on political candidates in Hong Kong

**Organizer and Instructor**, Machine Learning Workshop, San Diego, USA Nov 2016

Organized and taught two machine learning workshop to economics PhD students

introduced basic concepts and different classification algorithm, application using [sklearn](#)

**Teaching Assistant**, UC San Diego, San Diego, USA 2012-Current

Served as a teaching assistant for 11 undergraduate courses

Focused primarily on introductory and intermediate microeconomics sequences

**Research Assistant**, Government Research Institute of Economy, Trade and Industry, Tokyo, Japan Jan 2011-Mar 2011

Reviewed, edited, and wrote relevant research material on Chinese outward direct investments

**Manufacturing Engineering Co-op**, Intel, Albuquerque, NM Jun 2006-Dec 2006

Developed metrics to measure equipment and factory capacity and output, identified run rate improvement projects, established accident prevention measures and planned training programs for personnel

## **Conference Presentations**

**2019 (Scheduled):** 69th Annual International Communication Association (ICA) Conference,  
Population Association of America (PAA)

**2018:** APSA Preconference on Computational Social Science